



Introduction

The company I am investigating is McDonald's: the founder of McDonald's is Raymond Albert Kroc.

The organisation that I have chosen is McDonald's because it is the number one world's most familiar fast food restaurant; it has stores all over the world.

Their headquarters is in Chicago it approximately has 2,800 workers to provide a wide variety of support function to 30,000 McDonald's restaurants in 119 countries around the globe through a network of divisional, regional and local-country offices.

They serve 46 million customers each day McDonald's is one of the world's most known companies and holds leading shares in the globe. Some of their famous foods are French fries, big Mac, quarter pounder, and chicken, McNuggets and egg muffin.

The McDonald's History

Raymond Albert Kroc 1902-1984, a Salesman

Ray Kroc mortgaged his home and invested his entire life savings to become the exclusive distributor of a five-spindled milk shake maker called the Multimixer. Hearing about the McDonald's hamburger stand in California running eight Multimixers at a time, he packed up his car and headed west. It was 1954 and He was 52 years old.

Where it all began, Des Plaines, Illinois

Ray Kroc opened the Des Plaines restaurant in 1955. First day's revenues-\$366.12! No longer is a functioning restaurant, the Des Plaines building now a museum containing McDonald's memorabilia and artefacts, including the Multimixer!

McDonald's has been recognized for its many contributions in the following areas:

- Top 25 Companies for People with Disabilities
- Best Employer for Asians
- Top 50 Places for Hispanic Women to Work
- Fortune Magazine - Top Places for Minorities to Work
- Working Mother Magazine - Top 10 Diversity Champions
- Hispanic Magazine - Top 50 Corporate Women in America

McDonald's is committed to recognizing the talents and job performance of all employees and values the contributions that come from people with different backgrounds and perspectives.

McDonald's has been known for its successful advertising since it opened its doors in 1955. If you ask people on the street what the advertising slogan for McDonald's is, nine out of ten people would respond, "We love to see you smile." McDonald's has become a part of our culture it's famous throughout cities around the world. McDonald's is a great resource for a fast, cheap, good quality meal.

More than 2.5 million people in this country place their trust in McDonald's every day – trusting the company to provide them with food of a high standard, quick service and value for money. There are more than 1,000 McDonald's restaurants around throughout the U.K.

McDonald's is proud to be a sponsor of so many of America's top sporting events. And once again McDonald's is proud to sponsor NASCAR Racing as the Official Drive-Thru of NASCAR.

Approximately 70% of McDonald's worldwide restaurant businesses are owned and operated by independent businessmen and women; it also has the number one position in franchising.

Interview with a employer at McDonalds

I went to my local McDonalds in east ham.

I spoke to a worker at McDonalds and interviewed him and these are the questions I asked him:

- 1) How do you use it in your business?
ICT plays a very big role in our company without ICT we would not know what we are doing and therefore be losing millions of pounds. I give an example of not having a computer in a McDonald store you would not know when to take the chips, burgers and how much you need and in a couple of day run out of supplies because our system shows how much stock we got and if we are in our last 10 the computer automatically sends a message to the suppliers telling them we are short.

- 2) How do you advertise your company?
Marketing plays a big part in how our product reaches our customers for example:
 - Posters (including newspapers, magazine and a bill board)
 - Radio spreads our slogan around the world and they say 9/10 people would say we love to see you smile
 - TV one of our main type of advertisement
 - Our website; www.McDonalds.com

- 3) When contacting your customer what communication methods do you use?
 - Leaflet posters
 - Advertising and promotion (all media)
 - Special offers

Four main function areas in McDonalds

Sales

All organisations usually provide a product or service for their clients or customers. Profit-seeking organisations, will try to sell their products to customers in exchange for money. Keep up to data records of there customers they can also find out how much they are going to sell in the future using spreadsheets and also plan future seasons periods such as charismas and new year to make sure they got the right products at the right time A sale is important to McDonalds because that's what McDonalds is all about. ICT is used in the sales department to advertise their products through poster and televisions. To store there stock well so customers don't go else were. To find out what customers like, through the Internet and questionnaires.

Excellence Selling Time

We aim to give all of our customer's great service all the time and should always be on the look out for those customers who may need help. The quality selling time vary from store to store. The only focus during this time is on the customer.

Discount

Discount is given when you are buying in meals or when there is a special offer, some times to promote there company they had a prize in blue straws which where given when you buy a meal, which would give you something free e.g. free fries. There is also discount given to some companies e.g. my sister works for the police and see gets discount if she shows her ID.

Hygiene

All staff is required to keep hair capes and to have clean hands while working behind the counter. They do have staff just making the store clean by cleaning the toilets time to time, cleaning tables, clean up dirty floor when customers have a accident for e.g. drink dropped on the floor and must keep caution sign for other customers.

Activities in the sales department

Communication



The sales department offers day to day communication to their customers. This service offers customer to find there local store or any information needed e.g. to book parties, complaints and etc.

Liaising



The sales department keeps in contact with other department to check carious thing e.g. price changes, new products.

Customer product completion



Customers are informed about the progress of there product through the customers preferred choice: check on the screen to see how long the food is going to take to be made e.g. if a customer asked for quarter pounder and there was none left then it would be listed on the screen telling the staff how long it will take to be made.

Sales in ICT

The sales department in McDonalds processes transactions involving the sale of good or services provided by the organisation. It markets the goods and services by preparing posters, mail shot, and sale presentations. It also deals with customer orders. They have to organise ways of advertising and how it will be made e.g. vouchers, billboards, adverts on TV, website

Sale department is mainly in charged of the following activities:

- Acknowledge every customer and engage in conversations where appropriate.
- Taking customers order in stores and online at www.mcdonalds.com.
- Keeping customers in contact of the progress of their order towards completion.
- Account sales must be recorded in the correct way before the goods leave the store
- Always open another till when a lot of customers are waiting to pay.
- Rectify problems quickly and efficiently and keep customer informed.
- Provide good customer service when food is satisfactory and offer a refund or exchange.
- Provide customers with active selling like always ask customer if they require anything else or do they want large.
- Always end the transaction with a friendly goodbye, thank you or hope you enjoy your meal.

Electronic point of sales system

In the sales department they use the electric point of sale system to be in command of stock levels and also prove of purchase for the customer if he has an accusation. The customer normally does not get the receipt but if you ask the staff for a receipt they will print it out for you. In the receipt it shows what you have brought, how much you paid for it and how change receive , details of branch, staff that served you and the date of purchase.

Stock control:

- To encourage and motivate our people at all levels of this business: -
By giving background knowledge of this business on the process of ICT system by memos leaflets, website and adverts.
- constantly increase standards of service in all areas of this business: -
By producing the needs of the new technologies introduced to this company.
- To pursue new revenue streams without adversely distributing our core offer: -
Making customers have quick service as it is a fast food restaurant.
- To be performing wholesaler for both publishers & retailers: -
By working with the technology to carry out both Publishers and Retailers.

Purchasing

All organisations need to bring in the goods and services that they need in order to carry out their operations. They can use stock control software and also use spreadsheets to store data. McDonalds can use the stock control software to get their product and know how much they need or how much demand there is. They can also send their suppliers order and payment resources using Edi and also to keep control of how long they have had their machines for and how long has it been for their last service. Track down orders for items they want. Identify possible suppliers.

When McDonalds require any stock they are told by there Stock Control and then they can be purchased through the Purchasing department. Then the relevant suppliers are contacted for the stocks and the money is handled by the finance department to pay of for the supplies or there are given credit from the company they are buying form. This is a type of loan given to cover the money in the time there credit is due.

Activities in the purchasing departmentStock Control

Managing stock control is essential if they want to be successful in their line of business, so they make sure they keep records of their stocks and if they require anything. If they have too little stock then they will run out of what they have too quickly and then the orders will have to wait whilst more stocks are brought in, but on the other hand too much stock would also be bad for them as it will be more money in the short term and it is lethal in the fast food industry, so McDonalds would keep there stock for a few days this is because it saves them a lot of money and the food stays fresh.

Key features of the stock control include

- Alternative/ superceded products
- Automatic link from purchase ordering
- Free stock calculated incorporating outstanding sales and purchase orders.
- General report facilities
- Stock valuation
- Stock turnover
- Price lists
- Stock inactivity
- plan

Purchasing in ICT

Processing transactions involving the purchase of good or services required by the organisation (manufacturing or non-manufacturing) will need to buy stationery, equipment used in the organisation.

To order on –line 24 hours a day, customers have to visit at www.mcdonalds.com They should now use the special catalogue search box on the left hand or the search box on top to quickly search the products.

Customer requirements

- Be available to help customers always give them your full attention
- Customer might want their product as soon as possible and a long wait would make less satisfied customers.
- Answer customer product queries confidently by explaining to them what you got on the menu
- If any item does not meet customer satisfaction they must be exchanged for a new one or be given generosity and give a little more for e.g. for medium fries they should get large instead.

E procurement

E procurement means buying stuff from other business or selling stuff to another business. McDonald's use ICT through the internet to buy products to sustain their company's local needs, such as pen, paper, glue.

Finance

An organisation needs to make sure that it has enough money available to pay for its purchases and other expenses. If there is not enough money available from sale of its own products then the organisation needs to find the money from elsewhere. If McDonalds did not keep records of all there operation work the company could go bankrupt. ICT is used in the finance department to control money, payroll for staff and bills. This information is vital because the company would know what they have brought and how much profit they have made.

Activities in the finance department

Budget



The finance department issues a budget to every department and aspects of the company. Each would get a budget that they would need to use efficiently and profitably. For example the operation department would use their money to buy raw materials for the company and if they go over there budget set then they are in financial decline

Income and out going



The finance department need to account for all the income they receiving and also the finance department needs to account for all the money going out of the company. This could include possible loans taken out by the company from the bank.

Finance in ICT

This department is responsible for managing the flow of money in and out of the organisation. It is also called the accounts department and handles the payment of wages and national insurance collections. The finance department also sets other department's budget and make sure that department managers do no overspend.

- Spreadsheet software, stock control
- Communication, using internet for emails, own web page
- Microsoft office, calculating payment, payroll, profits
- To pay their staff, the company uses a payroll system, which calculates the employee's total wage. The money is then transferred into the account.
- Designing reports for meeting outlining company sales, and monitoring areas where the company is improving and where improvements need to be made. Word processing, multimedia and spreadsheet software is used.

Payroll

To pay the staff of McDonalds they calculate how much money the worker earns. This is done by the ICT system used in McDonalds.

Conveniently for the workers this system also figures out how much tax and national insurance is owed to the bank, so it deducted from the pay as the money is transferred to the bank.

Spreadsheets

Spreadsheets are used by the finance department to produce cash flows and forecasts. These forecasts will allow Boots to predict how much money they are most likely to make in the near future. It will give all the information about McDonalds for e.g. how much money their making. They can see how much money will go in and out of the company in the future as well.

Financial record

The manager or staff or an accountant needs to be in good position of keeping the accurate detailed information, which is kept for the income and outcome of this business. There are some methods for this to happen.

- Chief executive is to know what has happened to their appropriate income profit and how much outcome is going out of the business.
- To reduce the money that they spend on wasted product, food, advertisement.
- To allow the government to work out the tax that is needed to be paid by the company (which is every 3 months).

Finance record in transaction

It is important to record all the transaction of the business correctly. The record must take place at the time the transaction takes place. The transaction should be marked at the correct prices on the goods that are listed in the official price list.

Operations

An organisations needs to be able to carry out the activities that it has to perform. The organisation may need to carry out its operations by observing certain laws, for example, health and safety, and food hygiene laws. Operation is used for prosper and growth of McDonalds. Some activates operation department the best way for producing the products, schedule for making the food on time, to check the quality of products.

Activities in the operation department

Publishing



McDonald's has improved its market by being on the headline as often as they can. This is a key thing in business **advertising**.

Production of products



The manufacturing of products has to be inspected quite often to see the best method of production; they must be produced the cheapest way with the best quality.

Quality check



The quality of products is monitored as well because of competition from other fast food companies. If the quality of product meets the needs of customer then there will be no stopping them coming back.

Operations in ICT

Responsible for carrying out the main functions of the organisation. An organisation can either produce a good or a service. The day-to-day task of providing the service is usually referred to as the operations function. For example banks, airlines, travel agents have large operations departments.

Quality control

To deliver the standards required protecting & enhancing the brand of McDonald's product. We have a quality policy & supporting processes & controls that ensures all McDonald's Company; we sell & meet standards of legal, hygiene and safety requirements.

Quality control

With regard our suppliers; all of our own brand suppliers are audited to ensure they meet our quality, legal, environmental & ethical trading requirements. Our quality team & the agents visit factories in the UK & overseas to ensure minimum standards are met & suppliers strive towards continuous improvement of the McDonald's product with quality as well as the product being manufactured with the use of ICT system.

Mobile pos station

The MPS is a McDonald's certified mobile POS station. Using the MPS, a crew person walks the drive-thru line taking customer orders that are automatically entered into the CCU and immediately displayed on the KVS. This lets the assembly team see the order sooner and speeds up the order delivery process.

The Order Taker Solution incorporates McDonald's Mobile POS Software and Via II-B wearable computers. With the InfoLogix Wearable PC Order Taking System, McDonald's acquires a comprehensive integrated solution - equipment, installation, warranty and support.

Benefits

- Increase sales by serving more drive-through customers -- Increases sales by serving more customers per hour
- Improve order accuracy because of direct link between the MPS and the CCU and KVS
- Perform tandem activities -- Can be used outdoors and indoors as a remote order-taker or backup POS
- Eliminate site modifications
- Simplify warranty and support
- Significantly reduce customer wait time -- Fast food customers today demand quick service. Long drive-thru lines may push customers to your competition.

Hardware and software general section

Input device

Mouse:



Mouse which is an input device that is used in all departments of McDonalds, this is because they use the mouse to control what commands they are making on the computer and this is on the screen.

Keyboard:



A keyboard is used to input data in to software. The workers in every department will use this to type up work. It is much quicker and less human errors.

Touch screen

A touch is a display screen; it is covered with sensitive touch panel. The user can control the things happening inside the computer by using the fingers. It is faster and easier to use it is ideal to use it in a place like McDonalds as they're always busy and makes it easier for them.

Digital camera:

Digital camera enables you take pictures and to store it in the computer system this is used McDonalds when they are making adverts and etc.

Magnetic strip reader:

Magnetic strip reader reads information that is stored on a magnetically black strip. If you have a bank account some people have cards that contain a magnetic strip. When you insert you're card there is a (atm) automatic strip reader that reads the data stored. Magnetic strip readers are widely used in conjunction with electronic point of sale (epos). This can be used to pay for food in McDonald by a customer and also can be used for the business to pay off suppliers.

Output device:

Monitor:



Monitor is one of the main output devices needed and is used in all the departments this is because if there was not monitor the staff can not see anything .they can adjust the length of the screen form short to long and they can also change the contrast to.

Printer:



An output device prints out the data that the user is working on and it can be used in the all the departments to print out work, leaflets, sales presentation and etc.

Photocopier



This organisation can use a photocopier for many reason e.g. to photo copies questionnaires to had out to customer and to create leaflets and other documents to.

Speakers



In McDonalds you always need speaker's jus in case the computer system causes an error, it will give a sound or to listen adverts that have music in it.

Processor

Central Processing Unit



A CPU has 3 main parts to it which is a control unit; they are arithmetic and logic unit, and immediate access store. In each department the staff will need to use this because a computer can not work without it.

Motherboard



In each department they have this motherboard on their computer system, because it contains most of the other process device, which is connected on the motherboard for other functional uses of the computer system, this is used in the entire department because the computer can not function with out.

Graphic Card



The Graphic card is one of the important parts of this Organisation's computer system. This is because with the Graphic card in their computer system it will give better quality 3d performance when using such software's like Microsoft word, Microsoft excel, Microsoft access and etc .high quality graphic cards are used for games in most circumstances but can also be used in varies other thing like creating a advert for McDonalds.

Network card



Network card is used in this organisation to install the software in the network that they using in. This used in the entire department as they all need to install software.

Storage device:

Cd-drive:



A cd-rom stores data. Cd-rom stand for compact disk read only memory. A cd-rom is where several people play games and install some software e.g. Microsoft word, excel, publisher. It store up to 700mb. In McDonalds they have a CD-ROM Drive, which just reads only the memory of a CD, picks up valuable information, so the staff can install the licensed software in their computer system and have information about the company e.g. a presentation that the manger needed to show the staff.

Floppy drive:



A floppy disk stores up to 1.44 mega bytes, which is approximately 300 a4 pages of straightforward text. In McDonalds they have a floppy drive in their computer system for to use their floppy disks with the capacity of 1.44 MB and insert in the a: drive to save their work files, so the staff can use the floppy disks to transfer the work in their own computer system to continue with their progress files and to move work from there work department to there home computer and also to make back up disks.

DVD drive:

DVD ROM stands for digital versatile disk or digital videodisk read only memory. It holds 10 times more memory than a cd. It can hold up to 4.7 GB. You can still use it for your CD-ROMS so basically this can be used McDonalds when someone want to store more work that 700mb. This can also be used in every department.

Hard Disk

In McDonalds you will need a decent fast speed hard disk with lots of memory space to store large number of files. A hard disk is a high capacity storage device. McDonalds uses a hard disk to increase the speed. This is also used to store data that can be accessed very quickly.

Ports and cable:

USB (universal serial bus)

Just about any computer that you can buy today it comes with one or more USB connectors on the back. These USB connectors let you attach everything from mouse to keyboard to your computer fast and with no trouble. The operation system supports USB as well, so the installation of the device drives is quick and simple, too.

Compared to other ways of connecting devices to your computer (including parallel ports, serial ports and special cards that you install inside the computers case) USB device are incredibly straightforward! This is also used in the entire department to link everything together.



USB hub



This is called a USB hub this like a floppy but can store up to 2 GB (depending on which one you get). Instead of having a floppy drive you just put this hub into the USB port and the information well come up this can be used in all the departments but I think generally the manager will have good use of this.

Serial port



Serial port is a general-purpose personal computer communications port in which 1 bit of information is transferred at a time. In the past, most digital cameras were connected to a computer's serial port in order to transfer images to the computer. Recently, however, the serial port is being replaced by the much faster USB port.

Parallel port

An interface on a computer that supports transmission of multiple bits at the same time; almost exclusively used for connecting a printer. On IBM or compatible computers, the parallel port uses a 25-pin connector. Macintoshes have an SCSI port that is parallel, but more flexible in the type of devices it can support.

Software

Without computer software there is no computer this is because the computer is commanded by the software that you have installed, it uses the software to command the hardware, so therefore one of the key thing in business computing is software.

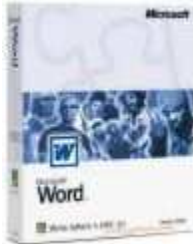
System software's

The staff of McDonalds would be using windows xp home professional/ home edition or windows 2003. (If they are using an old system software it would be windows 98), but I think for there requirements they would be using windows xp professional. Without system software there would be no where to go and you can not see anything on your screens, so where would the staff be doing there work, so a system software is essential.



Application software

Word processing



The staff of McDonalds use word processing to create business letter and to store there own information that they require. They can also use word processing to make questionnaires, to open work up and etc.

Utility Software

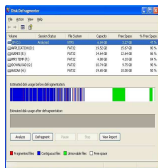
This is an important software to McDonalds because their confidential information on the computer stay safe. Sygate Personal Firewall Professional to keep out hackers and Trojan attacks and DoS (Denial of Service) attacks from their systems. This keeps their systems secure from any outsider intruders.

Antivirus

- Norton anti virus searches for viruses on the computer and shows you any files and folder with viruses. Here is an example of how it works. This software was very useful for this organization because the staff of McDonalds used this utility software to protect their computer from viruses, the viruses could come from the usage of floppy disk, hard drive, cd and when using the internet.



Disk Defragmenter



This program allows you to make your computer slightly faster. It sorts out the information in the computer and optimises the information so the computer can access the information more quickly.

WinZip



This program allows you to compress large files or folders of information and also allows you to unzip files and folders in their compressed state.

Security Device



Cctv is used in every department of McDonalds because they can keep an eye on everyone from thieves and there own staff this is because there is a lot of frauds going on in businesses e.g. people taking money out of the till and managers of the store as they got keys can come and raid there own store or office which would have computers and other expensive things.

Keypad

The staffs of this organization have a password nearly on every private place e.g. When going to the back of the restaurant where the food is made and the staff only rooms there would be a keypad to press the password for you to go in. and in the department that you need to go on the computer they would have a username and password so they can monitor you if you are doing anything that you are not suppose to be doing.

Emergency

Fire exist is used to escort everyone out of the building if there was a fire or any other dangers thing that might of occurred, basically there would be a second exit for the building because the first exist could be on fire. In the sales department you would need to take extra precautions because of all the hazards around so there would be fire blanket and fire extinguishers.

Alarms

Smoke alarm



Smoke alarm is to detect any fire around this would be used all the departments incase of a fire.

Security alarm

This is used in all the departments because of burglaries, there would be a four digit number that you have to press to stop it beeping and in a certain amount of time the security people would send the police to the building to see how the alarm went off.

Security guards



Security guards are used in the sales department to guard the restaurants from thieves, vandalism and trouble makers. They are highly train professionals that can handle any situation.

Finance supervisor

These are people who have been hired to watch over the people who are involved in the transaction of money belonging to McDonalds. So if a worker is seen to be trying to steel some of the company's money, then the supervisor would report the criminal for arrest/

Specific hardware in the sales department

Input device:

Touch screen

When you are ordering they press the screen that adds up your money and tells the staff how much you want and then you get the total and then you pay the staff, the till also tells you the change that customer gets back.

Electronic Point of Sales System

This organisation uses EPOS to control the level of stock, and also being much more in command of Sales figure for contrasting the profit gained and loss each month in the financial department.

Keypad

Keypad is very essential to this organisation: this is because all the members of staff can use their password to input the data on the keypad, to enter to other departments of the company this is because the company might want to keep thing private and confidential.

Output device

Receipt printer



These printer prints out the item that was purchased and includes other details such as the date it was purchased. These receipts are very useful as they allow customer to return good if it is not satisfied.

McDonald's will not give you a receipt unless requested

Specific software in the sales department

Application software used in the sales department

Database



This software is very handy for McDonalds in the sales department to store information and to keep everything organized; it also kept in the main computer system so the staff can get all the information about product from the software. It also keeps the information about how much product got sold on that day.

Excel



This program allows the sales department to produce a database on their computers. They can find out what customer like and dislike.

Publisher



This program allows the sale department to create market products, poster, leaflets and etc.

Specific Hardware used in the purchase department

Refer to general section

Specific Software used in the purchase department

Ordering software

This software is used to buy products from different manufactures. Whenever the company is low on a product he ordering software would purchase more of that product to restock.

Database



Database is also used in the purchase department to create order form to send to there suppliers. Also used for checking if everything is in stock daily.

Specific Hardware used in the finance department
Refer to general section

Specific software used in the finance departmentApplication SoftwareSpreadsheets

Spreadsheets software is essential because the staff or an accountant of this organisation can calculate the total receipts for each month, when the customers bought the products from McDonalds followed buy the monthly bills, which will be deducted from the total receipts to show the monthly profit of this organisation.

Also to calculate how much tax they have to pay or receive if they paid too much.

Also use spreadsheet software to calculate the salary for the members of staff who works for part-time or full time for this branch for each month which is called Payroll Processing.

Specified hardware in the operation department
Refer to general section

Specified software in the operation department

Cad (computer aided manufacturing)

This software allows McDonalds to test there designs of new products without having to actually manufacture it. It also predicts problems that may occurred with the tested product.

Cam (computer aided designs)

This software allows McDonalds to input their designs and allow them to figure out the best way to manufacture their product. Information about the dimensions and materials are inputted into the manufacturing hardware and it would manufacture the product exactly the way it was designed.

General Hardware & Software Summary

In all of these departments ICT is used extensively; and it is relied upon for a variety of tasks. For example the following departments use ICT in the following ways:

- **Finance Department**
 Spreadsheets software is essential because the staff or an accountant of this organisation can calculate the total receipts for each month, when the customers bought the products from McDonalds followed buy the monthly bills, which will be deducted from the total receipts to show the monthly profit of this organisation. Also to calculate how much tax they have to pay or receive if they paid too much. Also use spreadsheet software to calculate the salary for the members of staff who works for part-time or full time for this branch for each month which is called Payroll Processing.
- **Purchasing Department**
 Ordering software
 This software is used to buy products from different manufactures. Whenever the company is low on a product he ordering software would purchase more of that product to restock.
 Database is also used in the purchase department to create order form to send to there suppliers. Also used for checking if everything is in stock daily.
- **Sales Department**
 Database
 This software is very handy for McDonalds in the sales department to store information and to keep everything organized; it also kept in the main computer system so the staff can get all the information about product from the software. It also keeps the information about how much product got sold on that day
- **Operations Department**
Cad (computer aided manufacturing)
 This software allows McDonalds to test there designs of new products without having to actually manufacture it. It also predicts problems that may occurred with the tested product.

Cam (computer aided designs)
 This software allows McDonalds to input their designs and allow them to figure out the best way to manufacture their product. Information about the dimensions and materials are inputted into the manufacturing hardware and it would manufacture the product exactly the way it was designed.

General System Specifications

As there are many different uses for many different computer workstations; there are lots of different combinations of computer systems specifications to choose from. So I have compiled a generic system specification for a generic multipurpose computer. This would be used for all kinds of tasks and it averages out the processing power of all the other types of workstations; thus making it an average specifications workstation.

For the explanations of the different parts; please refer to the General Hardware & Software Section.

Input Devices:

PS/2 Keyboard

PS/2 Mouse

Scanner

Output Devices:

15" TFT Monitor

Inkjet Printer

Stereo Speakers

Storage:

40-60GB Hard disk drive

CD-RW Drive

Floppy Disk Drive

Computer Parts:

Network Card

Built-In SoundCard

Built-In Graphics Card

2.6 Ghz Processor

Average Specification Motherboard

Lakhani and Desai

Purpose:

The company is a consultancy firm. They do basic accounts for cliental. They also do budgeting. Cash flow and profit forecast. I recommend that they use 1 or 2 computers because the company uses a calculator and a pen to work out payroll, tax, vat return, tax rebates and national insurance and asked frequently to do budgeting, cash flow and profit forecast for there clients this is a manual system. If they use 1 or 2 computers they can do

much more work more space because there would be no need for there file cabinets, quicker, less human errors, no need to work hard the computer can do all the working and you would not lose or damage any files it would all be on the computer and if there is anything wrong with the computer You could have back up copies.

Types of processing:

Calculations

- Spreadsheets can be made on Microsoft excel where formulas and calculation can be done.
- Calculation can be done automatically. Once a new bit of information is entered the numbers are updated automatically to.
- Databases work similar to when the information needs updating it does it automatically.

Storing

- Most of the data is stored in the hard drive
- You can transfer data to floppy disk, CDs, zip drive and USB hub.
- You can have back up copies of your work in a floppy disks and CDs and etc.

Searching

- Data can be found easier because when ever you save a piece of work it has a name or title and you can search the data and it will appear automatically.

Sorting

- What time people want there order
- Sorting out orders in categorise and size
- How much a customer owes the company

Word processing

- you can store customers information in Microsoft word and note pad
- you can create adverts in Microsoft processors

Input requirements

Wages: wages is money someone earns by working they get paid weekly or monthly:
pizza palace gives £2500 a month on wages to there staff.

Loan repayment:

A loan is money given to an organisation or company that must repay the money with sometimes an increased debt due to interest. The purpose of having a loan in the first place was to help it to establish itself. The loan repayment for every month is -£300.

Rent

To rent something is to pay regularly to the owner for using his property, pizza palace have rented there property, they pay -£250 per a month.

Electricity and gas:

Just like any other business pizza palace need electricity to run the company, they pay there bill quarterly in may they pay -£500 and august they pay -£400.

Business rates: if you use a building or part of a building for business, you will properly have to pay business rates pizza palace pay £400 every 3 months they pay business rates in June and September.

Advertisement: advertisement is to make sales people would know about your company because you advertised it for example TV, magazine, leaflets and etc. pizza palace pays £2000 every 6 months they paid there's in May.

Business rates

All business pay there rates so in this case pizza palace have to pay there rates to of -£400 in June and -£400 in September.

Opening bank balance: opening bank balance is the budget that you are aloud to spend pizza palaces opening bank balance is -£1000.

Supplies

Pizza palace need to buy supplies to produce their products and the supplies are half of the predicted sales, which would be for the first month (April) £ 6,000 so the money for the supplies for that month would be £3,000.

Process:

Formulas: a formula is used to make calculation such as adding (+) subtracting (-) pizza palace use formulas to calculate the money spent on e.g. net cash flow would be = total receipts – total payments and for supplies would be = total receipts/2.

What if queries: what if queries are to predict or change the future in pizza palace what if queries are used to change the amount of money spent e.g. on advertisement =if (b8= “yes”, depreciated advert, original advert).

Conditional formulas: for a result that is true or false pizza palace use conditional formulas to find out if they made a profit or lose each month. The if function of the conditional formula will be “=IF (B14<0,”CRISIS”,”OK”)”, this balance check formula will be used in the cash flow model.

Output requirements:

Closing bank balance: a closing bank balance is the new opening bank balance for the next month e.g. June closing bank balance is £2000 and the opening bank balance for July is £2000.

Net cash flow: total receipt minus total payment is the net cash flow for pizza palace.

Net Cash flow

Net cash flow is the results of the total receipts take away the total payment of bills for each month.

Total: all the cost that is going out (out going money) e.g. electricity +business rates + rent + wages + supplies and etc.

Balance check: balance check is the answer to the conditional formula which is under purpose it will tell you if it is true or false.

Balance check

You can Use Balance check to see whether the pizza palace company have certain amount of profit or they have a negative balance amount for each month, so in B15 to G15 it will automatically calculate whether the balance is a “CRISIS” or “OK” using the balance check formula.

Information sources:

Lakhani and Desai: Lakhani and Desai is a consultancy firm. Lakani is a chartered account and Desai is a manager ‘whiz kid’. Their clients are shops, cleaning firms and restaurants. They do basic accounts for them like payroll, tax, national insurance and frequently asked to do cash flow budgeting profit forecast and etc.

Manager of Pizza palace: pizza palace is a restaurant that is in debt and has asked lakhani and Desai to design a cash flow budgeting profit forecast.

Case study: a case study is all the information that is provide by lakhani and Desai and pizza palace to design system a cash flow

Hardware and software

Input device

Mouse:



Mouse which is an input device that is used for every computer which lakani and Desia need, this is because they use the mouse to control what commands they are making on the computer and this is on the screen.

Keyboard:



A keyboard is used to input data in to software. The workers in this company will use this to type up work. It is much quicker and has less human errors.

Scanner



This device might be needed for this company because the scanner can read the work of the printed page and turn it to better colour in dark or light features, you can also erase the bits and pieces that you don't want, by copying the whole scanned information that you did and paste it into another software and there you will be able take away the unwanted things or you can crop the information that you just need and fully scan it again the things you need from it.

Output device:

Monitor:



Monitor is one of the main output devices needed and is used in every computer this is because if there was not monitor the staff can not see anything .they can adjust the length of the screen from short to long and they can also change the contrast to.

Printer:



An output device prints out the data that the user is working On and this company needs this to print out work, leaflets, sales presentation and invoices.

Storage device:

Storage device: when you load and save.

Cd-drive:



A cd-rom stores data. Cd-rom stand for compact disk read only memory. A cd-rom is where several people play games and install some software e.g. Microsoft word, excel, publisher. It store up to 700mb. In this organisation they have a CD-ROM Drive, which just reads only the memory of a CD, they create back up copies of there work and they can store there clients data too.

Floppy drive:



A floppy disk stores up to 1.44 mega bytes, which is approximately 300 a4 pages of straightforward text. In this organisation they have a floppy drive in their computer system for to use their floppy disks with the capacity of 1.44 MB and insert in the a: drive to save their work files, so the staff can use the floppy disks to transfer the work in their own computer system to continue with their progress files and to move work from there work department to there home computer and also to make back up disks.

DVD drive:



DVD ROM stands for digital versatile disk or digital videodisk read only memory. It holds 10 times more memory than a cd. It can hold up to 4.7 GB. You can still use it for your CD-ROMS so basically this can be used in this organisation when someone want to store more work that 700mb. This can also be used in every department.

Hard disk drive



This is the computers main storage device. It is located in the computer itself and boasts a profuse amount of space. E.g. 40 GB, 60 GB, 80 gb, 120 gb, 160 gb and etc.

Processor



2.4 GHz Pentium 4 Processor with Hyper-Threading

The processor is the “brain” of the computer, it can run tasks and application, it without it the computer would not work, and it needs no user interaction. I chose a Pentium 4 2.4 GHz processor, since 2.4 GHz is a good speed for its price in the market now and since it has Hyper-Threading it can run applications more efficiently and, I chose the Intel brand for their good prices and easy guides and overclocking ability, I think that this would be a good solution.

Software

Without computer software there is no computer this is because the computer is commanded by the software that you have installed, it uses the software to command the hardware, so therefore one of the key thing in business computing is software.

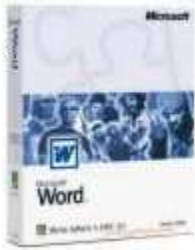
System software's

The workers of this organisation would be using windows xp home professional/ home edition or windows 2003. (If they are using an old system software it would be windows

98), but I think for there requirements they would be using windows xp professional. Without system software there would be no where to go and you can not see anything on your screens, so where would the staff be doing there work, so a system software is essential.



Application software

Word processing

The staff of this organisation use word processing to create business letter and to store there own information that they require. They can also use word processing to open work up and etc.

Excel processing

Microsoft excel is essential in this organisation to create spread sheet, to make what if queries.

Utility Software

This is an important software to this organisation because there confidential information on the computer stay safe. Sygate Personal Firewall Professional to keep out hackers and Trojan attacks and DoS (Denial of Service) attacks from their systems. This keeps their systems secure from any outsider intruders.

Anti virus

- Norton anti virus searches for viruses on the computer and shows you any files and folder with viruses. Here is an example of how it works. This software would be very useful for this organization because the staff need used this utility software to protect there computer from viruses, the viruses could come from the usage of floppy disk, hard drive, cd and when using the internet.



Pizza palace

Problem Identification

1a) The owner of pizza palace is going to use the computer system. pizza palace is a restaurant that has been running for 2 years, it made a small profit years before but things are not picking up for them this year. The owner of this restaurant has no experience in computer modelling. The old system which is the manual system doing things by hand which requires more time and hard work and could also include human errors, this time round there is going to be a new system which is easier and is more quicker.

1b) the main problem is that there is more money going out than there is coming in also there is a new Italian restaurant opening across the road which would make them lose more money and drive them into debt.

I have been hired to fix their problem by changing their method of working from the manual way into a computer.

Pizza Palace Current Situation

Predicted sales figures for the next 6 months:

- April £6,000
- May £7,000
- June £8,000
- July £7,000
- August £5,000
- September £6,000

I have been asked to produce a cash flow forecast for the next six months and suggest ways in which cash flow could be improved using a computer model. I will do this by doing the below.

- Consider different types of computer models
- Produce a draft cash flow forecast
- Improve presentation of the model
- Identify types of calculation
- Conduct two “what if queries”
- Advise the restaurant owner about how to improve cash flow

1c) the alternative solution would be:

- Set up a manual cash flow in the format of spreadsheet

- Set up a spreadsheet 'computer model' using a choice of software package
- Alternatives include
- Lotus 123
- Final
- Get accountant to do your work.
- Selling the company
- Installing Microsoft money

1d) the objective of the new system would be:

- Plan and predict how much income and outcome for the next month
- Transfer all the data on to the new system
- Make it more secure
- Take a loan until the business is up and running again.

Analysis

2A) a predictive system is a system where by we can look in to the future e.g.

Weather forecasting:

Is a predictive model that predict the weather and to provide weather forecasts on the temperatures in each town by updating automatically and receive the signals to progress onwards.

Flight simulator

Is a predictive model, but before the pilot actually has experience to go on the actual plane, they might have to have a basic training of how to use the controls and instrument panel to simulate the movements of the actual plane.

2b) Refer to task 1c

2c) software is all the thing you can not touch but can see for e.g. Microsoft word you can see but cannot touch. The software that I need that makes it suitable for the project are:

System software

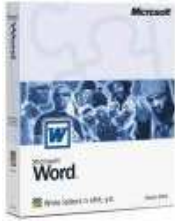
Windows XP



I recommend the user to use windows XP professional which is the most advance operating system currently out. It has a lot of advance features e.g. able monover around the computer more easily.

Application software

Ms Word



Ms Word - this can be used to produce reports type letters and also commercialise the business. This software is used to make fax, memo, letters and etc. But on the other hand it is Not specifically designed to create and manage spreadsheets. The other key features are: Easy to use, Small range of types of charts, updated automatically (if you got internet)

Ms excel



Ms excel - A spreadsheet database that can be used to perform calculation, database, tables, and graphs and to predict your future income and outcome. This software is used to make queries.

Utility software



The utility software that I can use in the computer system is McAfee Virus scan; it includes advanced detection technology that consistently finds new viruses. It also provides instant updating via the Internet to ensure that your computer has the latest virus protection. McAfee stop viruses at all entry points to the computer system- including e-mail, internet downloads shared disks, and synchronization with your PDA. It consistently monitors and stop virus – like activity on your computer to prevent any new threats from spreading. The other utility software such as Scan disk where it scans for errors and try to fix the problem that has occurred in the floppy disk or in the hard drive.

2d)

Input device

Mouse



The advent of the mouse and the graphical user interface, which links a pointer on the computer display to the movement of a mouse, which allows the user to use the mouse to go through two different stages.

Keyboard



Keyboards are used to insert data into a computer system by typing on individual keys that the user presses. A good keyboard will also have extended function keys, such as keys to check email, start a media player, change the volume, and eject CD drives and much more.

Scanner



Scanner, a computer input device that uses light-sensing equipment to scan paper or another medium, translating the pattern of light and dark (or colour) into a digital signal that can be manipulated by Microsoft editor software. This will allow the user to scan their paper of written work and save in there hard drive, which is kind of like back-up security measure.

Processor Device

This type of device is needed for the Pizza Palace because to manipulate the data into the software that the user is using in the computer system.

Motherboard

This type of processor device is required for the user of Pizza Palace, because the motherboard is the main circuitry board, where most of other processor device is fixed into the motherboard, like Central Processing Unit and other processor device, so this is a main processor device that the user needs in order to use the computer system.

CPU

The processor is the “brain” of the computer, it can run tasks and application, it without it the computer would not work, and it needs no user interaction. All the hardware that is connected to the computer is run by the CPU (Central Processing Unit) and applications are run from this also. The CPU’s speed is a key factor in the final speed of the computer and the higher the FSB (Front Side Bus) width is the speed is much better. A CPU also has a cache, this is used to store commands and the like temporarily whilst the CPU is working; this cache is emptied on power-down of the CPU. High-End CPU will have a larger cache, a faster FSB, a good clock speed (this is the speed u see on the processors and is measured in MHz and GHz; MHz being Megahertz and GHz being Gigahertz) and will also have extra functions such as Hyper-threading which allows the CPU to run more applications easier and faster. Dell use an average CPU on their work machine, between the speeds of 1.6GHz and 2GHz.

Output deviceTFT Monitor



A 15" TFT Monitor would be recommended since it would not take up a lot of space since it is a flat screen TFT (Thin Film Transister) so it would take up less space and would be visible from lots of angles, and 15" would be good since it is a good size, and it should support High Resolutions such as 1600 x 1200, which would show up whole spread sheets and large desktops on one page.

Printer



This type of Output device is required for the user of Pizza Palace, because printer allows the user to print their work from any software that they were using to solve their problem, print how many pages they like to print, can print in black and white or colour in best, normal, draft or custom.

Speakers



This is emits sound from the program you are running. Sound is only heard if the sound is incorporated with the program.

Storage Device

This type of device is required for the user of Pizza Palace, because these devices store data as charges on a magnetically sensitive medium such as a magnetic tape or, more commonly, on a disk coated with a fine layer of metallic particles, this will be useful for the user of Pizza Palace to make back – up copies using the storage devices.

Floppy Drive



This type of Storage device is required for the user of Pizza Palace, because if they have a floppy drive in their computer system, so they can use their 3½ inch floppy disk and put it into their floppy drive to save their work, with a capacity of 1.44 megabyte of a floppy disk.

CD – RW Drive



This type of Storage device is valuable for the user of Pizza Palace, because the user can use the CD – RW Drive to have a back – up copy of their work from their computer system on to a CD – Rewritable disk.

Hard Drive



This type of Storage device will be very handy when it comes saving the work or making back – up copies on their hard drive of the Hard disk. The user of Pizza Palace can now save their work from Microsoft Excel (Spreadsheets) into their hard drive, when they have a Hard disk to their Computer system. You can also have a external harddrive to.

2e) Data capture

| | April | May | June | July |
|-----------------|-------|-----|------|------|
| Opening balance | | | | |
| Supplies | | | | |
| Wage bill | | | | |
| Loan repayment | | | | |
| Total payment | | | | |
| Closing balance | | | | |

I will collect the data by designing a data capture form to collect the data required: bills, payments, and receivables.

| | April | May | June | July | August | September |
|-------------------------|--------|-------|-------|-------|--------|-----------|
| Opening bank balance | -£1000 | | | | | |
| Total Receipts | £6000 | £7000 | £8000 | £7000 | £5000 | £6000 |
| Supplies | £3000 | £3500 | £4000 | £3500 | £2500 | £3000 |
| Wages Bill | £2500 | £2500 | £2500 | £2500 | £2500 | £2500 |
| Loan Repayment | £300 | £300 | £300 | £300 | £300 | £300 |
| Rent | £250 | £250 | £250 | £250 | £250 | £250 |
| Electricity & gas bills | £0 | £500 | £0 | £0 | £400 | £0 |
| Business Rate | £0 | £0 | £400 | £0 | £0 | £400 |
| Local Advertisement | £0 | £2000 | £0 | £0 | £0 | £0 |

2f) appropriate backup measures include:

Floppy drive:



A floppy disk stores up to 1.44 mega bytes, which is approximately 300 a4 pages of straightforward text. Floppy discs are to save important files on.

Floppy drive

Zip drive:



On a zip drive more data can be stored rather than on a floppy.

Cd drive:



A cd can hold up to 700 mb space

Portable USB Storage



Portable USB Storage will be a suitable backup measure for the user because it works like a hard drive, ideal for storing and sharing digital images, text files, spreadsheets and presentations.

2g)

Scan disk

Scan disk – scans the hard drive for any errors and also repairs them or deletes them.

Antivirus software

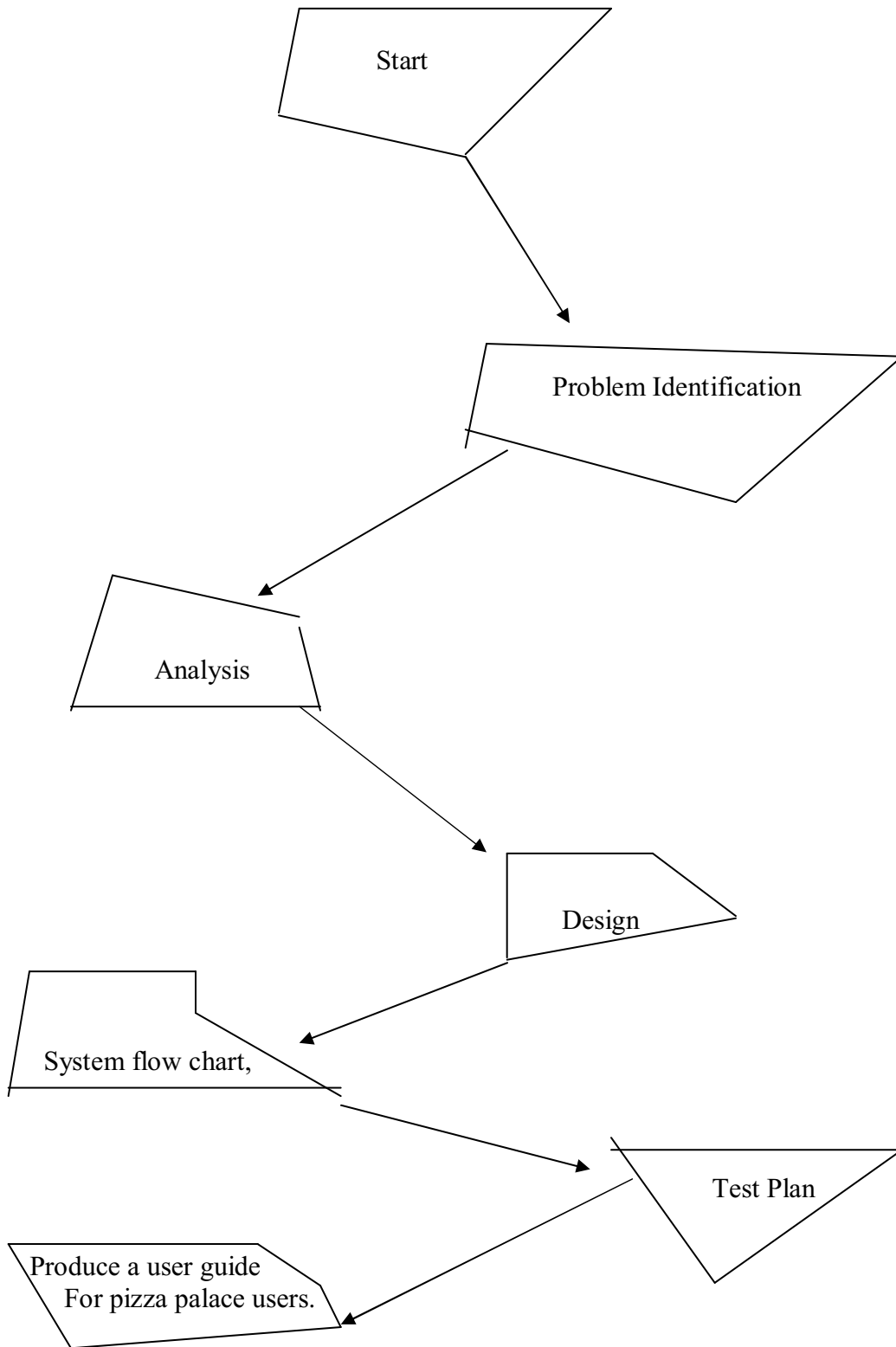
Antivirus software –searches for any viruses and deletes them from the system or either quarantines them. (Norton system)

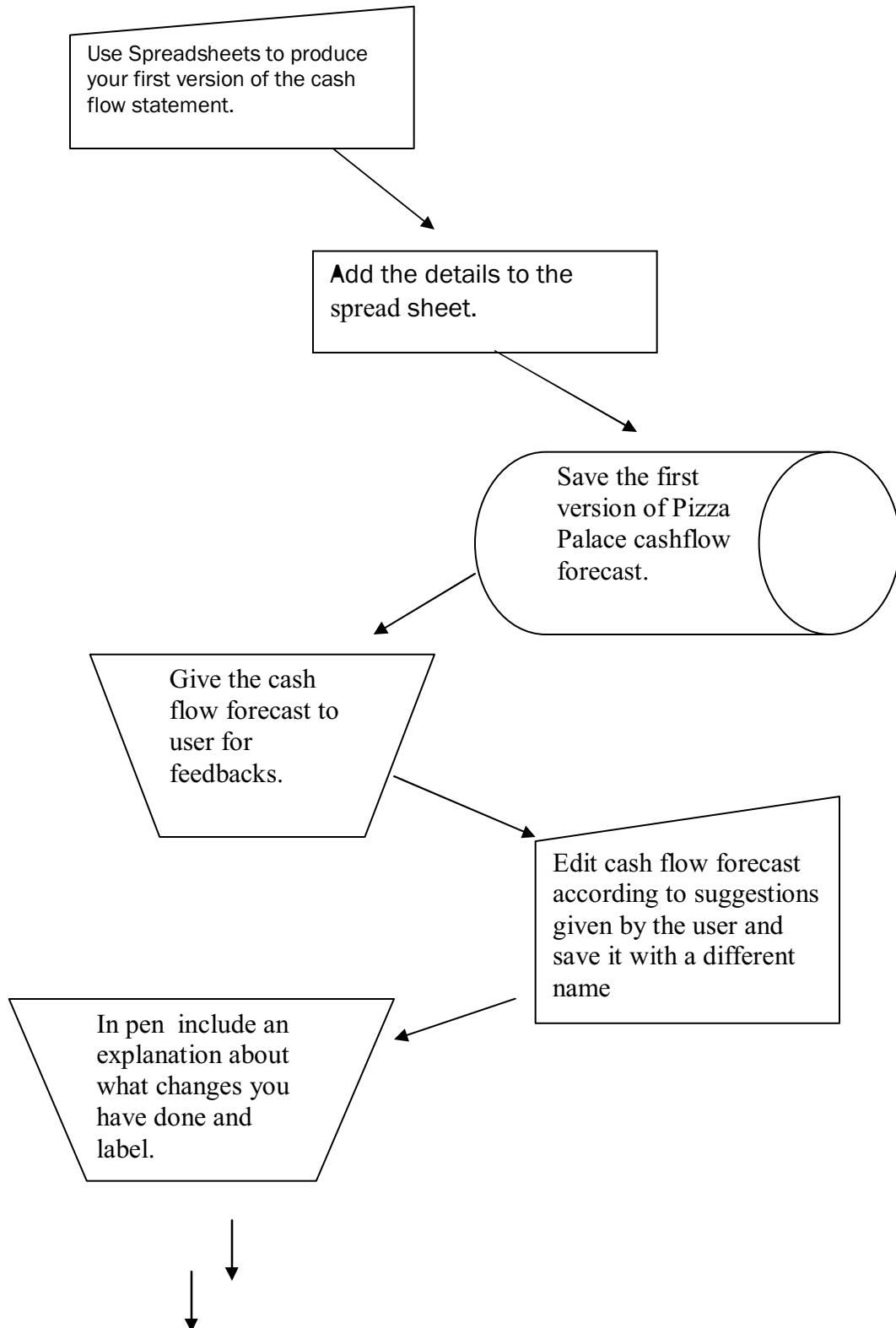
Username and password

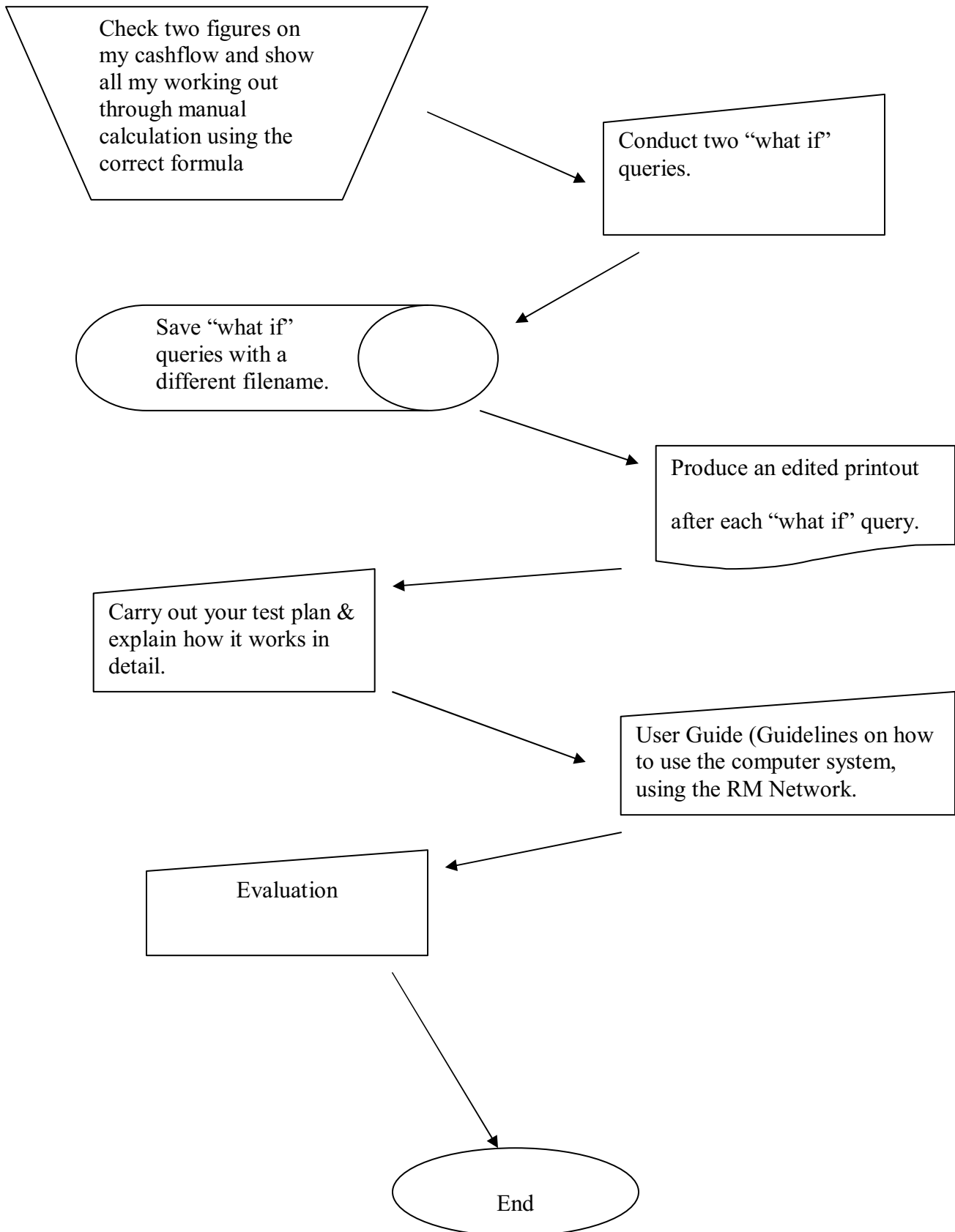
Protect system by using passwords (Using Alpha-Numeric passwords for added security)

Design

3a)







b) Test plan

To test my method I used Microsoft excels and inserted a few random numbers

4
5
89
0
234
54
306

By clicking the auto sum system and then switching it to the formula mode it shows me the formula used to calculate the added total automatically.

4
5
89
0
234
54
=SUM(A1:A6)

My experiment was successful seeing that the calculation was exact as shown below

4
5
89
0
234
54
386

Rough design of a computer model

| | April | May | June | August | September |
|----------------------|-------|-----|------|--------|-----------|
| Opening Balance | | | | | |
| Total Receipts | | | | | |
| Rent | | | | | |
| Supplies | | | | | |
| Wages | | | | | |
| Closing Bank Balance | | | | | |

My first cash flow**Pizza palace cash flow**

| | April | May | June | July | August | September | |
|-----------------------------|-------|-------|-------|-------|--------|-----------|-------|
| <u>Opening Balance</u> | | -1000 | -1050 | -3100 | -2550 | -2100 | -3050 |
| <u>Total Receipts</u> | | 6000 | 7000 | 8000 | 7000 | 5000 | 6000 |
| <u>Supplies</u> | | 3000 | 3500 | 4000 | 3500 | 2500 | 3000 |
| <u>Wages</u> | | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| <u>Loan Repayment</u> | | 300 | 300 | 300 | 300 | 300 | 300 |
| <u>Rent</u> | | 250 | 250 | 250 | 250 | 250 | 250 |
| <u>Electricity And Gas</u> | | 0 | 500 | 0 | 0 | 400 | 0 |
| <u>Business Rate</u> | | 0 | 0 | 400 | 0 | 0 | 400 |
| <u>Advertisement</u> | | 0 | 2000 | 0 | 0 | 0 | 0 |
| <u>Total Payment</u> | | 6050 | 9050 | 7450 | 6550 | 5950 | 6450 |
| <u>Net Cash Flow</u> | | -50 | -2050 | 550 | 450 | -950 | -450 |
| <u>Closing Bank Balance</u> | | -1050 | -3100 | -2550 | -2100 | -3050 | -3500 |

Implementation / Testing

4a)

The changes the user ask me to make in the cash flow

Add the title

Pizza palace cash flow

| | April | May | June | July | August | September |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <u>Opening Balance</u> | <u>-1000</u> | <u>-1050</u> | <u>-3100</u> | <u>-2550</u> | <u>-2100</u> | <u>-3050</u> |
| <u>Total Receipts</u> | <u>6000</u> | <u>7000</u> | <u>8000</u> | <u>7000</u> | <u>5000</u> | <u>6000</u> |
| <u>Supplies</u> | 3000 | 3500 | 4000 | 3500 | 2500 | 3000 |
| <u>Wages</u> | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | 300 | 300 | 300 |
| <u>Rent</u> | 250 | 250 | 250 | 250 | 250 | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | 0 | 400 | 0 |
| <u>Business Rate</u> | 0 | 0 | 400 | 0 | 0 | 400 |
| <u>Advertisement</u> | 0 | 2000 | 0 | 0 | 0 | 0 |
| <u>Total Payment</u> | <u>6050</u> | <u>9050</u> | <u>7450</u> | <u>6550</u> | <u>5950</u> | <u>6450</u> |
| <u>Net Cash Flow</u> | <u>-50</u> | <u>-2050</u> | <u>550</u> | <u>450</u> | <u>-950</u> | <u>-450</u> |
| <u>Closing Bank Balance</u> | <u>-1050</u> | <u>-3100</u> | <u>-2550</u> | <u>-2100</u> | <u>-3050</u> | <u>-3500</u> |

By moeen Patel

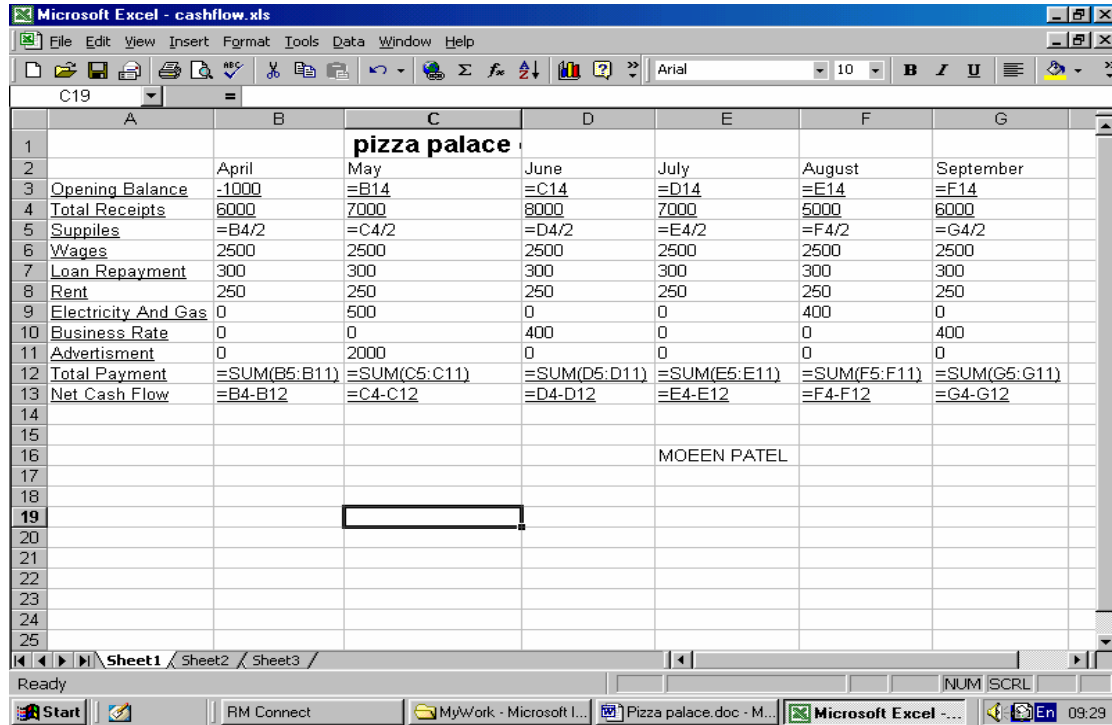
Underlined the sub titles and add capital letters

Add this row closing bank

Add your name

Underline key figures

4b)



The print screen above shows the formularies that I used in my spreadsheet.

I used the auto sum role to add all the total payment for each month. Auto sum is a micro, which adds up numbers for you. I highlighted the suitable column and clicked on to the auto sum icon.

I checked two formulae with a calculator to see if there was a match with my spreadsheet answer.

Manual Calculations – these are manual calculations that I have done by hand.

Total Payment for April = Supplies (£3,000) + Wages (£2,500) + Loan Repayment (£300) + Rent (£250) + Electricity and Gas (£0) + Business Rates (£0) + Advertisement (£0) = £6050

Net Cash Flow = Total Receipts (£6000) – Total Payments (£6050) = -£50

What if queries

The first what if queries that I am going to do is reducing money used for advertising. I will be reducing the original £2000 to £1000.

This is the original version

| pizza palace cashflow | | | | | | | |
|------------------------------|--------------|--------------|--------------|------|--------------|--------------|--------------|
| | April | May | June | July | August | September | |
| <u>Opening Balance</u> | <u>-1000</u> | <u>-1050</u> | <u>-3100</u> | | <u>-2550</u> | <u>-2100</u> | <u>-3050</u> |
| <u>Total Receipts</u> | <u>6000</u> | <u>7000</u> | <u>8000</u> | | <u>7000</u> | <u>5000</u> | <u>6000</u> |
| <u>Supplies</u> | 3000 | 3500 | 4000 | | 3500 | 2500 | 3000 |
| <u>Wages</u> | 2500 | 2500 | 2500 | | 2500 | 2500 | 2500 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | | 300 | 300 | 300 |
| <u>Rent</u> | 250 | 250 | 250 | | 250 | 250 | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | | 0 | 400 | 0 |
| <u>Business Rate</u> | 0 | 0 | 400 | | 0 | 0 | 400 |
| <u>Advertisement</u> | 0 | 2000 | 0 | | 0 | 0 | 0 |
| <u>Total Payment</u> | <u>6050</u> | <u>9050</u> | <u>7450</u> | | <u>6550</u> | <u>5950</u> | <u>6450</u> |
| <u>Net Cash Flow</u> | <u>-50</u> | <u>-2050</u> | <u>550</u> | | <u>450</u> | <u>-950</u> | <u>-450</u> |
| <u>closing Bank Balance</u> | <u>-1050</u> | <u>-3100</u> | <u>-2550</u> | | <u>-2100</u> | <u>-3050</u> | <u>-3500</u> |

MOEEN PATEL

This is how the cash flow is with the advertisement changes

| pizza palace cashflow | | | | | | | |
|------------------------------|--------------|--------------|--------------|------|--------------|--------------|--------------|
| | April | May | June | July | August | September | |
| <u>Opening Balance</u> | <u>-1000</u> | <u>-1050</u> | <u>-2100</u> | | <u>-1550</u> | <u>-1100</u> | <u>-2050</u> |
| <u>Total Receipts</u> | <u>6000</u> | <u>7000</u> | <u>8000</u> | | <u>7000</u> | <u>5000</u> | <u>6000</u> |
| <u>Supplies</u> | 3000 | 3500 | 4000 | | 3500 | 2500 | 3000 |
| <u>Wages</u> | 2500 | 2500 | 2500 | | 2500 | 2500 | 2500 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | | 300 | 300 | 300 |
| <u>Rent</u> | 250 | 250 | 250 | | 250 | 250 | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | | 0 | 400 | 0 |
| <u>Business Rate</u> | 0 | 0 | 400 | | 0 | 0 | 400 |
| <u>Advertisement</u> | 0 | 1000 | 0 | | 0 | 0 | 0 |
| <u>Total Payment</u> | <u>6050</u> | <u>8050</u> | <u>7450</u> | | <u>6550</u> | <u>5950</u> | <u>6450</u> |
| <u>Net Cash Flow</u> | <u>-50</u> | <u>-1050</u> | <u>550</u> | | <u>450</u> | <u>-950</u> | <u>-450</u> |
| <u>closing Bank Balance</u> | <u>-1050</u> | <u>-2100</u> | <u>-1550</u> | | <u>-1100</u> | <u>-2050</u> | <u>-2500</u> |

MOEEN PATEL

After I knocked off £1000 there still was a lost in the cash flow.

This “what-if” query showed what changes would happen to the Cashflow if I cut down the advertising costs to £1000. This still would get the company some advertisements but not as many as before; but the added benefit of this is that it allows for some more money

to be saved. Because the money is saved this way; we can help to alleviate the problems in the Cashflow.

Second what if query

In the second what if query I am going to do is on wages. If an employee leaves that person will not be replaced

| pizza palace cashflow | | | | | | | |
|------------------------------|--------------|--------------|--------------|------|--------------|--------------|--------------|
| | April | May | June | July | August | September | |
| <u>Opening Balance</u> | <u>-1000</u> | <u>-1050</u> | <u>-3100</u> | | <u>-2550</u> | <u>-2100</u> | <u>-3050</u> |
| <u>Total Receipts</u> | <u>6000</u> | <u>7000</u> | <u>8000</u> | | <u>7000</u> | <u>5000</u> | <u>6000</u> |
| <u>Supplies</u> | 3000 | 3500 | 4000 | | 3500 | 2500 | 3000 |
| <u>Wages</u> | 2500 | 2500 | 2500 | | 2500 | 2500 | 2500 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | | 300 | 300 | 300 |
| <u>Rent</u> | 250 | 250 | 250 | | 250 | 250 | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | | 0 | 400 | 0 |
| <u>Business Rate</u> | 0 | 0 | 400 | | 0 | 0 | 400 |
| <u>Advertisement</u> | 0 | 2000 | 0 | | 0 | 0 | 0 |
| <u>Total Payment</u> | <u>6050</u> | <u>9050</u> | <u>7450</u> | | <u>6550</u> | <u>5950</u> | <u>6450</u> |
| <u>Net Cash Flow</u> | <u>-50</u> | <u>-2050</u> | <u>550</u> | | <u>450</u> | <u>-950</u> | <u>-450</u> |
| <u>closing Bank Balance</u> | <u>-1050</u> | <u>-3100</u> | <u>-2550</u> | | <u>-2100</u> | <u>-3050</u> | <u>-3500</u> |

MOEEN PATEL

This is the original version

This is how the cash flow is with the wages changed

| pizza palace cashflow | | | | | | | |
|------------------------------|--------------|--------------|--------------|-------------|-------------|-----------|-------------|
| | April | May | June | July | August | September | |
| <u>Opening Balance</u> | <u>-1000</u> | <u>-450</u> | <u>-1900</u> | <u>-750</u> | <u>300</u> | | <u>-50</u> |
| <u>Total Receipts</u> | <u>6000</u> | <u>7000</u> | <u>8000</u> | <u>7000</u> | <u>5000</u> | | <u>6000</u> |
| <u>Supplies</u> | 3000 | 3500 | 4000 | 3500 | 2500 | | 3000 |
| <u>Wages</u> | 1900 | 1900 | 1900 | 1900 | 1900 | | 1900 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | 300 | 300 | | 300 |
| <u>Rent</u> | 250 | 250 | 250 | 250 | 250 | | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | 0 | 400 | | 0 |
| <u>Business Rate</u> | 0 | 0 | 400 | 0 | 0 | | 400 |
| <u>Advertisement</u> | 0 | 2000 | 0 | 0 | 0 | | 0 |
| <u>Total Payment</u> | <u>5450</u> | <u>8450</u> | <u>6850</u> | <u>5950</u> | <u>5350</u> | | <u>5850</u> |
| <u>Net Cash Flow</u> | <u>550</u> | <u>-1450</u> | <u>1150</u> | <u>1050</u> | <u>-350</u> | | <u>150</u> |
| <u>closing Bank Balance</u> | <u>-450</u> | <u>-1900</u> | <u>-750</u> | <u>300</u> | <u>-50</u> | | <u>100</u> |

MOEEN PATEL

After I made the changes there is still are loss in some of the months, but at the end September has a profit which is not a lot.

From these changes there is a definite change in the Cashflow; which solves the problem of the negative end balance.

Test plan with both the queries

| pizza palace cashflow | | | | | | |
|------------------------------|-------|------|------|------|--------|-----------|
| | April | May | June | July | August | September |
| <u>Opening Balance</u> | -1000 | -450 | -900 | | 250 | 1300 |
| <u>Total Receipts</u> | 6000 | 7000 | 8000 | | 7000 | 5000 |
| <u>Supplies</u> | 3000 | 3500 | 4000 | | 3500 | 2500 |
| <u>Wages</u> | 1900 | 1900 | 1900 | | 1900 | 1900 |
| <u>Loan Repayment</u> | 300 | 300 | 300 | | 300 | 300 |
| <u>Rent</u> | 250 | 250 | 250 | | 250 | 250 |
| <u>Electricity And Gas</u> | 0 | 500 | 0 | | 0 | 400 |
| <u>Business Rate</u> | 0 | 0 | 400 | | 0 | 0 |
| <u>Advertisement</u> | 0 | 1000 | 0 | | 0 | 0 |
| <u>Total Payment</u> | 5450 | 7450 | 6850 | | 5950 | 5350 |
| <u>Net Cash Flow</u> | 550 | -450 | 1150 | | 1050 | -350 |
| <u>closing Bank Balance</u> | -450 | -900 | 250 | | 1300 | 950 |

MOEEN PATEL

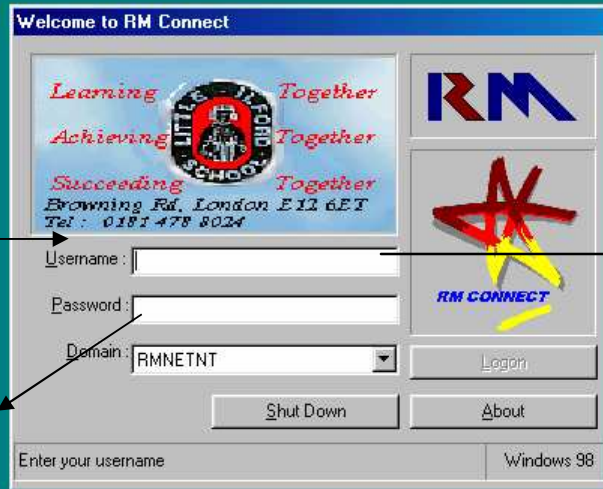
The changes made to the cash flow have given it a positive outlook. Over the next few months it is evident in the bank balance that there has been rising profit from May until September, although there is a negative net cash flow in August.

4f)

Userguide

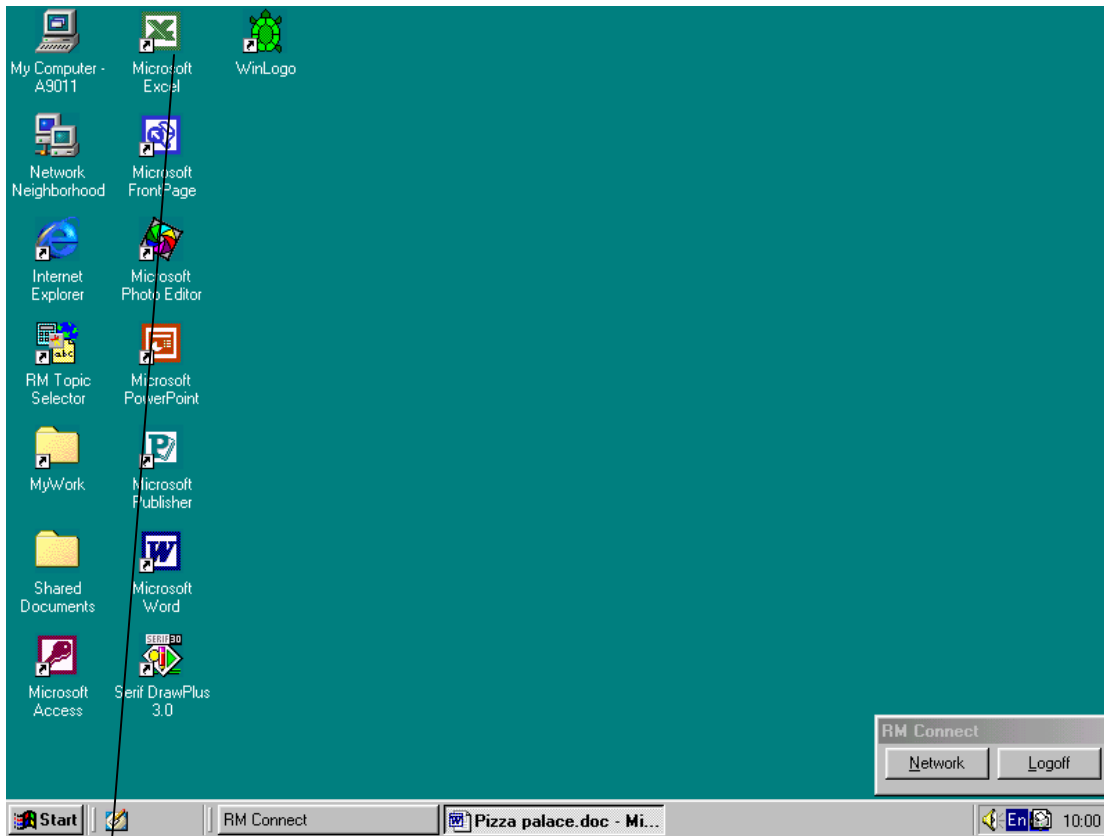
As soon as you turn on your computer system, a login screen will appear, asking

Type in your password here.

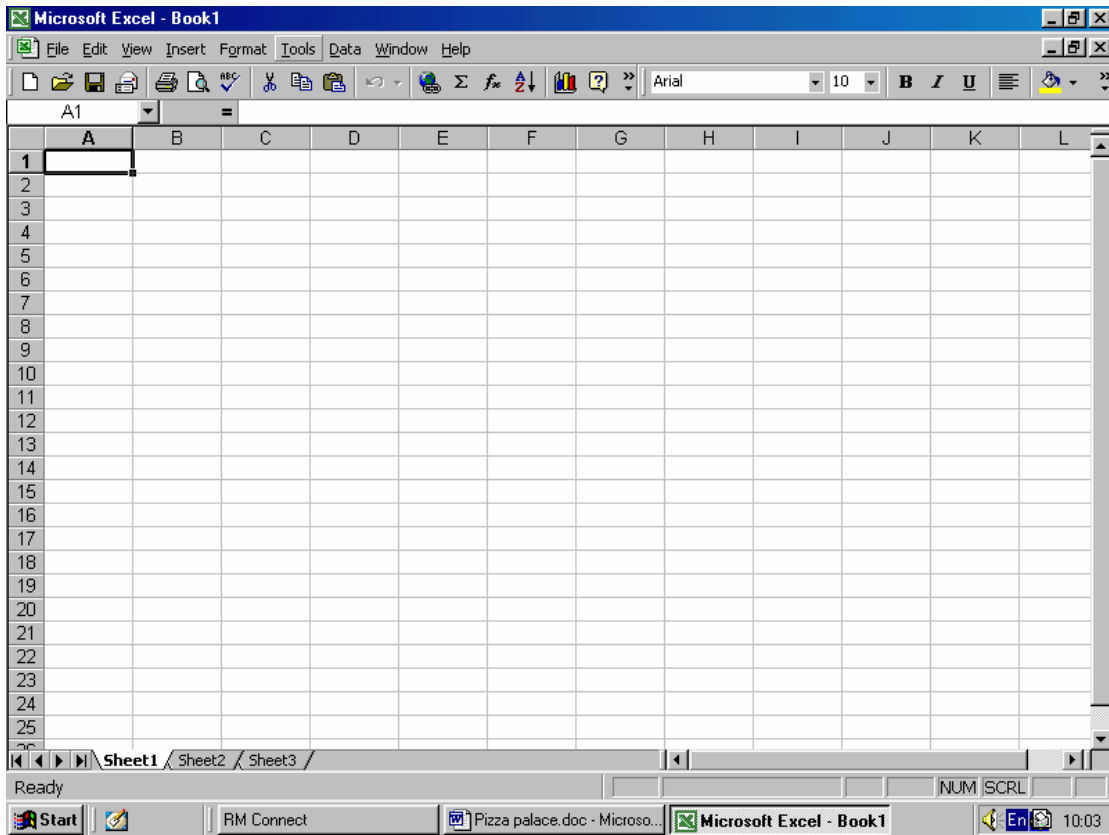


Username
Type in your user name to log

After you log in this screen will come than you just click on the program you want but am going to use Microsoft excel.



Then you click on the icon that says excel to make spreadsheets and to predict what's going to happen in your next month or next six month and etc. but if you want to go to Microsoft word or any other software in the computer go to the icon or go to the start menu then go to all programs then pick the software that you want.



This is a blank page of excel, than you can type in your information like the one that I have done on the next page which has information on pizza palace. In sum of the cells you can add in formularies to calculate some of the sums automatically.

| pizza palace cashflow | | | | | | | |
|-----------------------|-------|-------|-------|-------|--------|-----------|--|
| | April | May | June | July | August | September | |
| Opening Balance | -1000 | -1050 | -3100 | -2550 | -2100 | -3050 | |
| Total Receipts | 6000 | 7000 | 8000 | 7000 | 5000 | 6000 | |
| Supplies | 3000 | 3500 | 4000 | 3500 | 2500 | 3000 | |
| Wages | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | |
| Loan Repayment | 300 | 300 | 300 | 300 | 300 | 300 | |
| Rent | 250 | 250 | 250 | 250 | 250 | 250 | |
| Electricity And Gas | 0 | 500 | 0 | 0 | 400 | 0 | |
| Business Rate | 0 | 0 | 400 | 0 | 0 | 400 | |
| Advertisement | 0 | 2000 | 0 | 0 | 0 | 0 | |
| Total Payment | 6050 | 9050 | 7450 | 6550 | 5950 | 6450 | |
| Net Cash Flow | -50 | -2050 | 550 | 450 | -950 | -450 | |
| closing Bank Balance | -1050 | -3100 | -2550 | -2100 | -3050 | -3500 | |

You can put your information into the cells like I have above.

August September

| | |
|------|-------|
| 0 | -950 |
| 5000 | 6000 |
| 2500 | 3000 |
| 2500 | 2500 |
| 300 | 300 |
| 250 | 250 |
| 400 | 0 |
| 0 | 400 |
| 0 | 0 |
| 5950 | 6450 |
| -950 | -450 |
| -950 | -1400 |

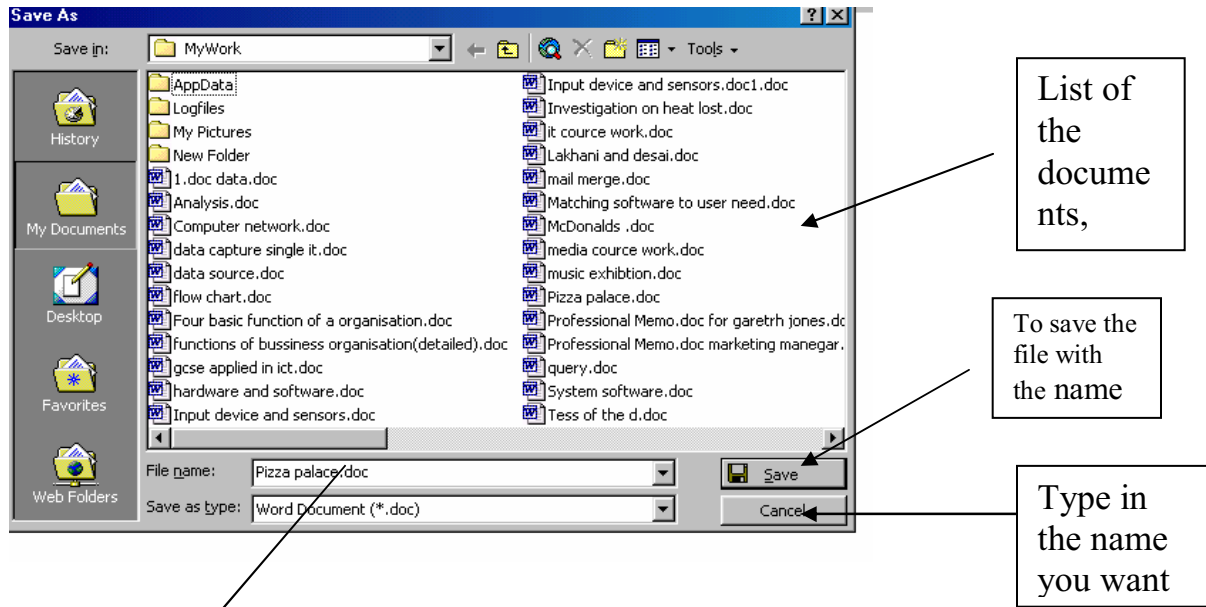
Double click on the cell to

Change the value of the cell

Value of cells related with the manipulated cell should change.

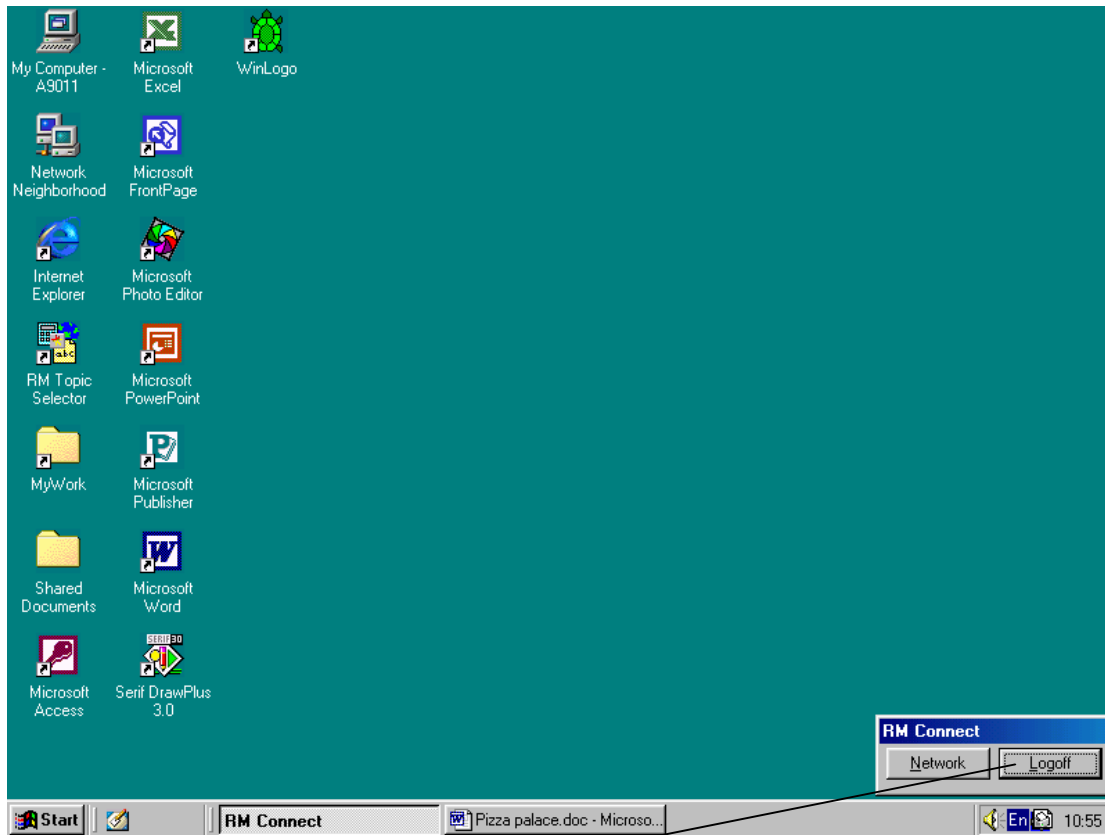
Using what if queries

Now you can play with the figures such as changing the amount of supplies. You can predict the out come of your next month or next six month you can change the amount of wages if you let go of a staff or if you useless money on your advertising.

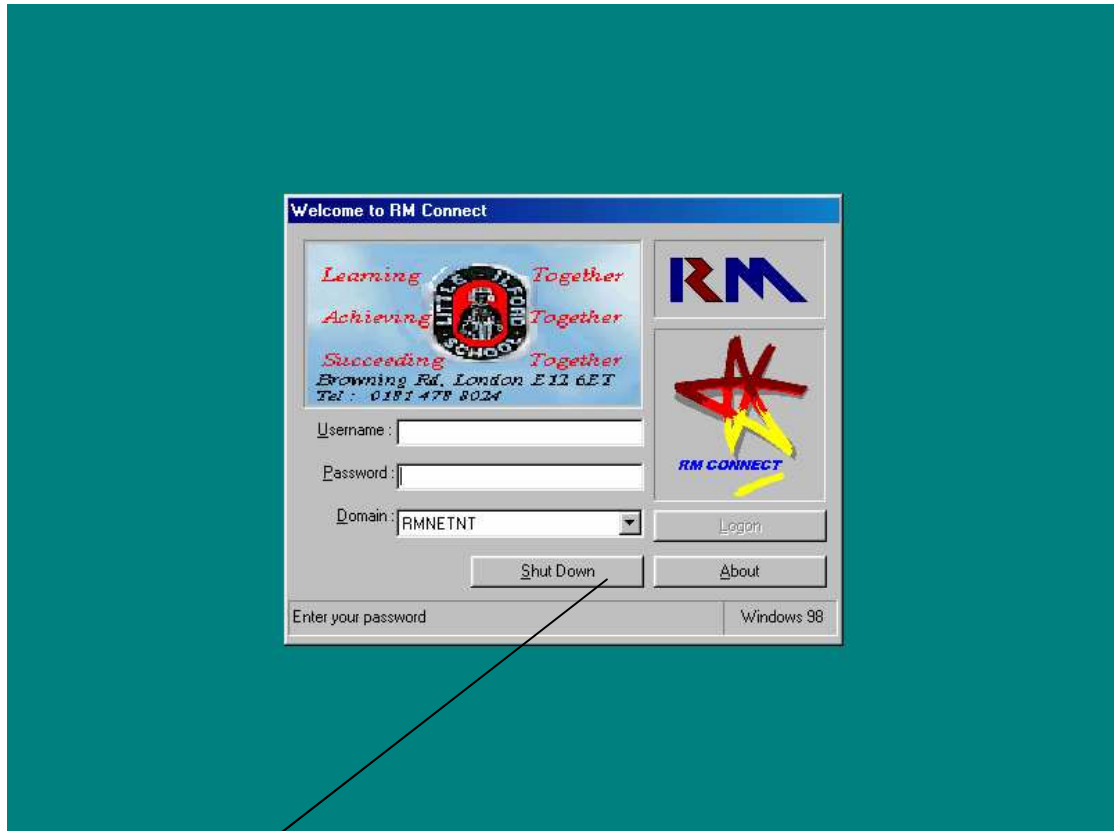


You can save your work by going to file then clicking on save. Now you type the information you want to save it on so you can remember what it was called and it would be easy to find your work next time you want to view your work like I have used pizza place.

After you finish doing your work and you don't need the computer any more you should shut down first by logging off.



Click on the logoff button and than click on yes to log off.

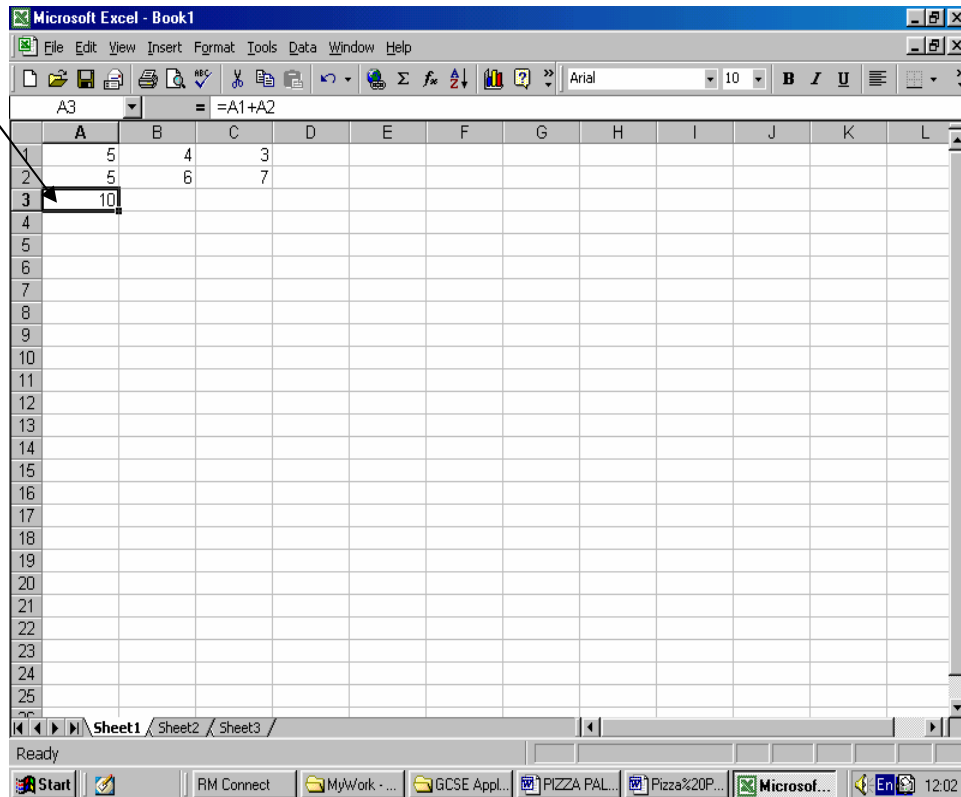


Then when you are ready to shut down you just click on the shut down button and then just wait for a few minutes to let it shut down automatically. If you do it manually it will not close properly and there will be something called a scan disk, which will scan for any errors in your computer the next you on the computer. It is a normal check because you did not shut the computer properly.

Absolute and relative cell referencing

Relative Cell Reference: these are the most common types of cell referencing used. For example if I want to add the contents of cell A1 to cell A2 I would use the formula in cell A3. The formula would be $=A1+A2$. This would add whatever is in cell A1 to whatever is in cell A2. If I then have similar numbers in B1 and B2 or C1 and C2 I can simply copy and paste the formula. What the formula in A3 actually says is look above me two cells and add the contents of the cell one above me. As the formula for column B and column C require the same calculation (e.g. look two above me and add the contents of one above me) you can copy and paste this formula and it will work.

Adding cell A1 to Cell A2 would give the result in Cell A3



Absolute Cell Referencing – this is used when you want to fix a formula to the contents of one specific cell. In the example below the formula will always be tied to B21 so that when it is copy and pasted across all the columns it will calculate the wages for each month by referring to B21 to see if it says ‘yes’ or ‘no’. What the formula actually says is look twelve cells below me and see if it says ‘yes’. If I copied and paste it across to column C the formula would not work, as it would refer to an empty cell.

This is the formula used for absolute cell referencing. The cell that is going to be used as the ‘referred’ cell would have to have two dollar signs beside.

| Pizza Palace Cashflow April - September | | | | | | |
|---|---------|--------|--------|--------|--------|-----------|
| | April | May | June | July | August | September |
| Opening Balance | -£1,000 | -£450 | -£900 | £250 | £1,300 | £950 |
| Total Receipts | £6,000 | £7,000 | £8,000 | £7,000 | £5,000 | £6,000 |
| Supplies | £3,000 | £3,500 | £4,000 | £3,500 | £2,500 | £3,000 |
| Wages | £1,900 | £1,900 | £1,900 | £1,900 | £1,900 | £1,900 |
| Loan Repayment | £300 | £300 | £300 | £300 | £300 | £300 |
| Rent | £250 | £250 | £250 | £250 | £250 | £250 |
| Electricity & Gas | £0 | £500 | £0 | £0 | £400 | £0 |
| Business | £0 | £0 | £400 | £0 | £0 | £400 |
| Advertisement | £0 | £1,000 | £0 | £0 | £0 | £0 |
| Total Payment | £5,450 | £7,450 | £6,850 | £5,950 | £5,350 | £5,850 |
| Net Cash Flow | £550 | -£450 | £1,150 | £1,050 | -£350 | £150 |
| Closing Bank Balance | -£450 | -£900 | £250 | £1,300 | £950 | £1,100 |
| save on adverts | yes | | | | | |
| Save on Wages | yes | | | | | |

Evaluation

5a)

Problem identification

I identified that Pizza Palace had a problem with their present accounting system. They used a calculator and paper system. The problem was that it was slow, calculators couldn't store data permanently and it took up a lot of storage space. They needed a system which was fast, took up lesser physical space and could store data permanently and the options were an accountant or a computer accounting system. I recommended they use a computer accounting system.

Identify types of calculations

When creating cash flow forecast for pizza palace there were 3 types of calculation, these are the 3 types of calculation that I used:

Total payment

Total payment = supplies + loan repayment + electricity + gas + rent + wages + business rate + advertisement.

Net cash flow

Net cash flow = total receipts – total payment

Closing bank balance

Closing bank balance = opening bank balance + net cash flow

How spreadsheets can be used to model cashflow forecast

When using formulas which is an automatic calculation e.g. (addition, subtraction and etc), balance check formula and conditional formula. The outcome in Implementation/Testing met this objective in the Problem identify section.

What if queries

What if queries mean to change the cash flow with the list of suggestions given to the user here are the changes the pizza palace user suggested.

- 1) don't replace staff who leave
- 2) save money on gas and electricity
- 3) have a cheaper advertiser

5b) the system that I have recommended met the requirement of the restaurant owner successfully. This is because I used information sources correctly to improve the cashflow for pizza palace.

5c) I could have appointed an accountant to do their work or use a manual system pen and paper. The what if queries that I made were appropriate but in the future you could change the what if queries for something else that you want to find out about. To set up a spreadsheet using a choice of software package. To hire a programmer to design a program that would suit Pizza Palace's needs'.

5d) the alternate methods I could have used to solve the problem are:

- To set up cash flow forecast using the old manual method.
- To set up a spreadsheet using a choice of software package.
- To use Lotus 123
- Renegotiating the money on rates
- To extend the leads of loan repayment
- To hire a programmer to design a program that would suit Pizza Palace's.

The what if queries that I made were very important as it proved that the formulas in Microsoft excel worked and also made a negative cash flow into a positive cashflow.

The other 'what –if?' queries that I could have undertaken are:

- A rise on the prices of the food.
- To look for cheaper supplies to make a better profit
- To cancel the advertising
- To pay the employees minimum wages
- A reduction in the use of gas and electricity. For example a 10% decrease

Macro:

Programmes that automatically take actions when using a macro programme e.g. excel. Some programs are produced using automated routine called wizard.

In pizza palace macro can be used to automate a variety of user actions including:

- Inserting graphics, tables and text.
- Replace multiple key strokes
- Adjusting the page layout
- Modifying application software configuration

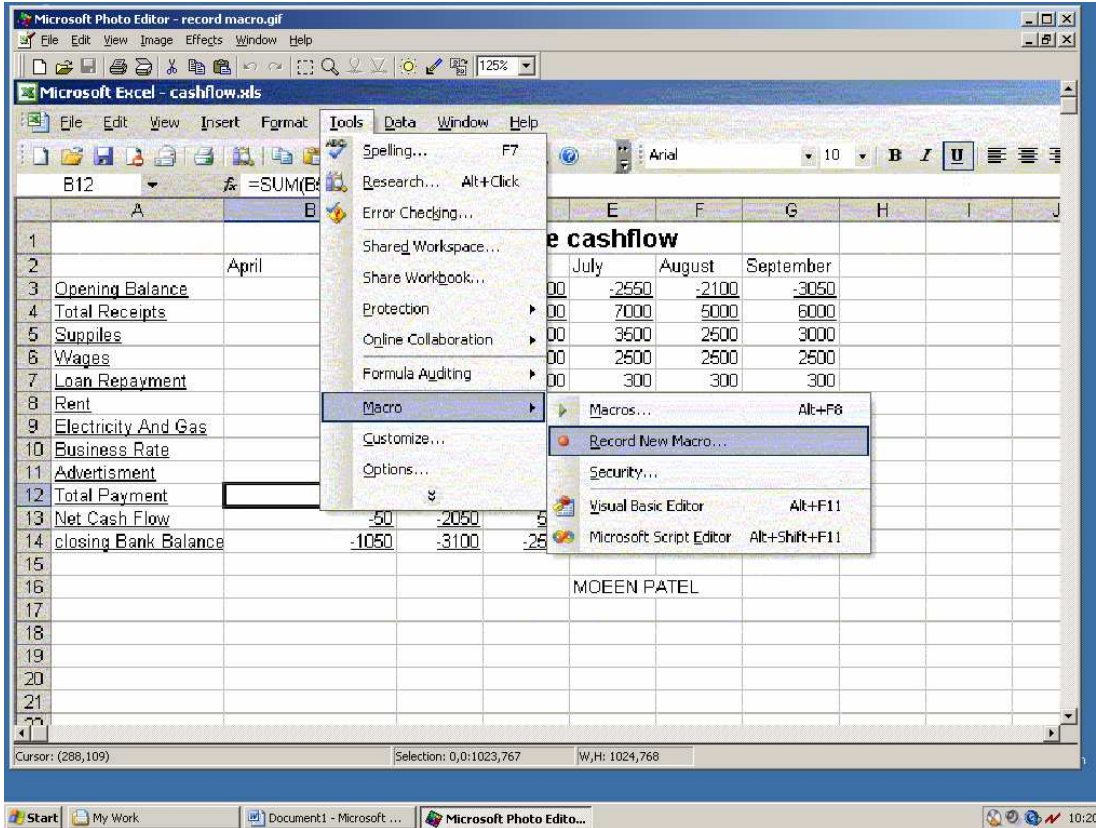
Here is a step by step method how I used a macro in excel for pizza palace.

The screenshot shows a Microsoft Excel spreadsheet titled 'pizza palace cashflow'. The spreadsheet is organized with columns for months from April to September. The rows list various financial items and their corresponding values for each month. The total receipts are 6000 for all months. Net cash flow is negative for all months, ranging from -50 to -450. The closing bank balance is -3500.

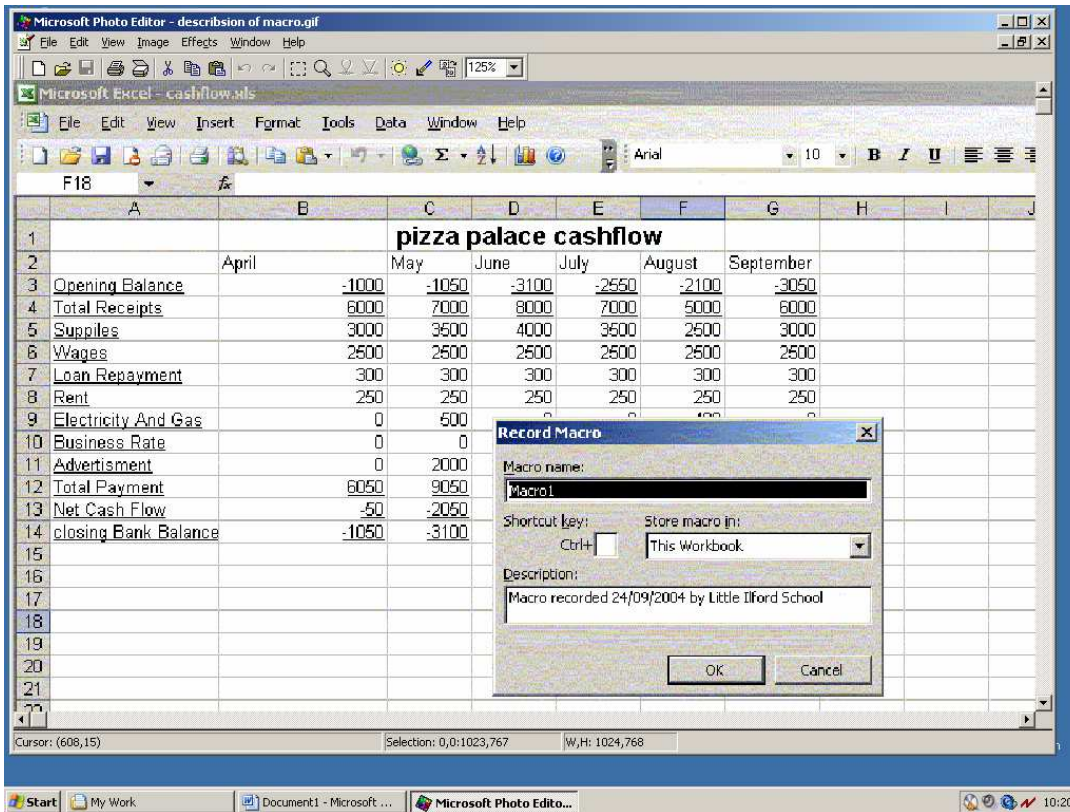
| | April | May | June | July | August | September |
|----------------------|-------|-------|-------|-------|--------|-----------|
| Opening Balance | -1000 | -1050 | -3100 | -2550 | -2100 | -3050 |
| Total Receipts | 6000 | 7000 | 8000 | 7000 | 6000 | 6000 |
| Supplies | 3000 | 3500 | 4000 | 3500 | 2500 | 3000 |
| Wages | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Loan Repayment | 300 | 300 | 300 | 300 | 300 | 300 |
| Rent | 250 | 250 | 250 | 250 | 250 | 250 |
| Electricity And Gas | 0 | 500 | 0 | 0 | 400 | 0 |
| Business Rate | 0 | 0 | 400 | 0 | 0 | 400 |
| Advertisement | 0 | 2000 | 0 | 0 | 0 | 0 |
| Total Payment | 6050 | 9050 | 7450 | 6550 | 5950 | 6450 |
| Net Cash Flow | -50 | -2050 | 550 | 450 | -950 | -450 |
| closing Bank Balance | -1050 | -3100 | -2550 | -2100 | -3050 | -3500 |

MOEEN PATEL

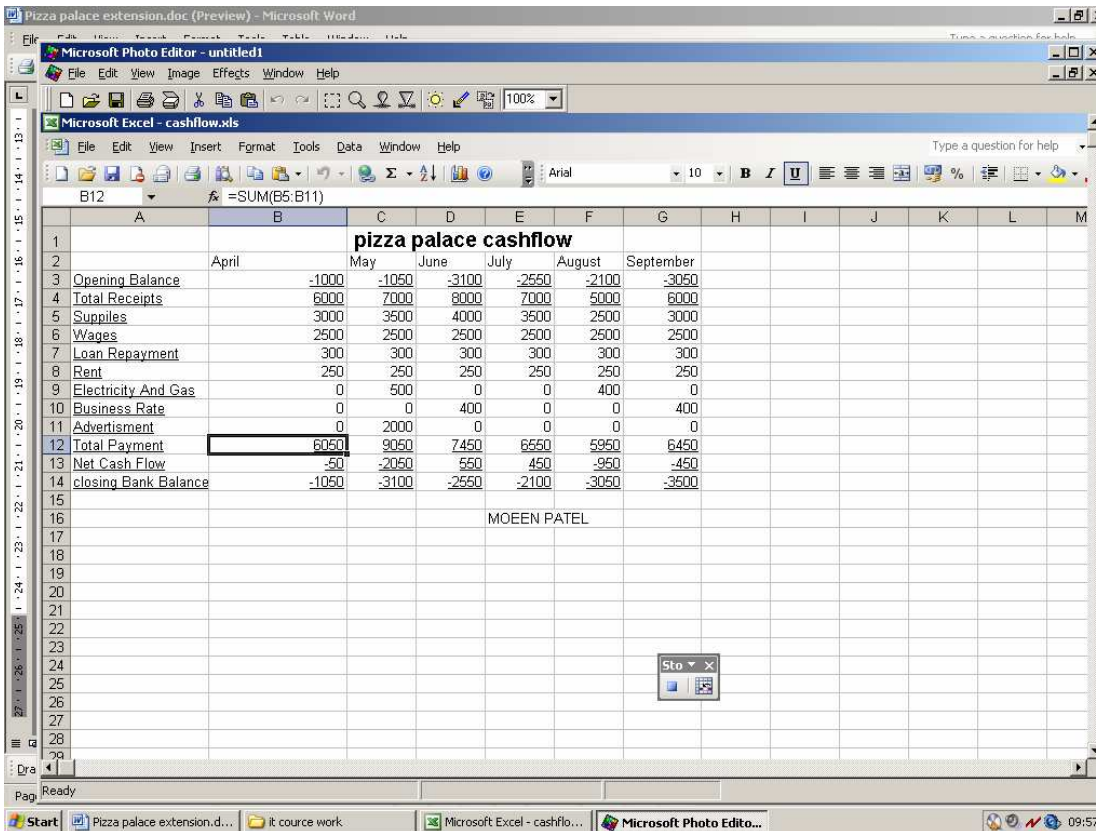
First of all open I opened my cash flow, and then I named this as cash.



To create a macro for my pizza palace cash flow, I will click tools then search for macro and then in the next column click “record new macro”.



Once you clicked on record new macro it should appear like this now I will create a new macro.



This is the macro button which is recording if I make any changes the changes that I am going to make are deleting cell b12 and then I add up cell b5 to b11 then click the auto sum button and then press the stop button on the recording button.

The image shows two overlapping windows. The top window is the Microsoft Visual Basic editor, displaying a macro named 'add' in the 'Module1' module. The macro code is as follows:

```

Sub add ()
    add Macro
    Macro recorded 24/09/2004 by Little Ilford School
    Keyboard Shortcut: Ctrl+A
    Range("B12").Select
    ActiveCell.FormulaR1C1 = ""
    Range("B5:B12").Select
    Range("B12").Activate
    ActiveCell.FormulaR1C1 = "=SUM(R[-7]C:R[-1]C)"
    Range("B21").Select
End Sub
    
```

The bottom window is Microsoft Excel, showing a spreadsheet titled 'pizza palace cashflow'. The spreadsheet has columns for months from April to September. Cell B5 is selected, and the formula bar shows '=SUM(R[-7]C:R[-1]C)'. An arrow points from the 'add' macro in the Visual Basic editor to the selected cell B5 in the Excel spreadsheet.

| | April | May | June | July | August | September |
|----------------------|-------|-------|-------|-------|--------|-----------|
| Opening Balance | -1000 | -1050 | -3100 | -2550 | -2100 | -3050 |
| Total Receipts | 6000 | 7000 | 8000 | 7000 | 5000 | 6000 |
| Supplies | 3000 | 3500 | 4000 | 3500 | 2500 | 3000 |
| Wages | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Loan Repayment | 300 | 300 | 300 | 300 | 300 | 300 |
| Rent | 250 | 250 | 250 | 250 | 250 | 250 |
| Electricity And Gas | 0 | 500 | 0 | 0 | 400 | 0 |
| Business Rate | 0 | 0 | 400 | 0 | 0 | 400 |
| Advertisement | 0 | 2000 | 0 | 0 | 0 | 0 |
| Total Payment | 6050 | 9050 | 7450 | 6550 | 5950 | 6450 |
| Net Cash Flow | -50 | -2050 | 550 | 450 | -950 | -450 |
| closing Bank Balance | -1050 | -3100 | -2550 | -2100 | -3050 | -3500 |

My macro has a short cut of ctrl+A it adds up all the outcome from b5 to b11 and shortcut button works on cell b12 and automatically adds everything up.

Final Evaluation

During the project I covered 5 areas:

What you learnt whilst carrying out research on your organisation

In section I learned the four main functions for which McDonald's organisation applies ICT. How hardware and software used in the four main functions of McDonald's. How security is been used in each department e.g. in sales there would be 3 types of security CCTV, alarm system and security guard.

Was your project detailed to the extend that if it was given to a individual he will be able to complete the project successfully

Yes this project has been well detailed to that extend if there was an individual to do this project he/she will be able to produce a similar project but it would be better if that individual had an idea about ICT system. I think with the case study from pizza palace and Lakhani and Desai they can successfully finish this project.

Did it help much when you where given the chance to go to the organisation to see how the business was runned and how ICT is used

My GCSE Applied In ICT class also went on a field trip to an organisation called Tate & Lyle. Tate & Lyle are one of the biggest sugar firms in the world; and use ICT extensively with their systems. They have many complicated machines that are controlled by computers. Their primary software used for controlling machinery is called SAP; and it was custom made for them by the original developers. This class visit gave me a better understand of how ICT is used in large organisations and how heavily it is relied upon.

If you had the chance to do this project again what would you do different

If I had to do this project again I would organise my self better and detailed my work to the max. And have more pictures to explain my work And create more what if queries and finish all the extensions.

Does an organisation need ICT to successfully run day to day business

You can have an organisation without ICT but the organisation would not be as successful and as organised if a company did have ICT. If you did not have ICT you would need more staff to manage the company, more storage space to store data e.g. suppliers, customers and etc.

To help me with my work I used several search engines as documented in the Bibliography. I used many different types of searching techniques; such as “quoted searches”; and selective searching. Quoted searching is searching for specific quotes; as you type them in to the search box. Selective searching involves the use of +/- symbols which can include or exclude certain words from a search to minimize unnecessary results.

I think I could have improved my coursework in certain areas such as the general hardware and software section; as they were not detailed enough. To improve on this I could have added some more detail to these sections.

Bibliography

Where I got my information:

On the internet:

www.google.com

www.mcdonald's.com

www.ask.com

By books:

Applied information and communication technology

GCSE applied ICT