Report Task 1
~ Research and Analysis ~

Introduction

'Top Toggs' is a local clothes retailer with a presence throughout the north west of England. Mr Massimo Bossman, the general manager is keen to develop the company and has ambitious plans however in o rder to fulfil these he is aware that the introduction of ICT systems is necessary. I have been employed, as a systems developer, to develop an ICT Information System.

The Current System

Employees are becoming frustrated with the length of time taken an d inefficiency with which daily tasks are completed. Current processes are repetitive, time consuming and inefficient which leads to delays in information being transferred.

After interviewing key 'Top Toggs' personnel I am able to clearly identify components of the current system that need to be incorporated into the new one, components that require modification before being incorporated and components currently missing from the information system

Roger Jameson (Regular Shopper, age 14)

- Likes being sent regular newsletters and information about sales and special offers.
- Thinks they are "…are a bit naff."

Jenny Smith (Sales Assistant)

- Uses an 'EPOS' (Electronic Point Of Sale) system which is 'very efficient'
- Is currently studying towards a GNVQ in R etail Therapy and management has been promised some computers to be made available for staff use. She would like some drawing packages to help her design a new company logo (as part of her GNVQ).

Zima Rehead (Store Manager)

- Letter writing is extremely s low as she has to write almost identical letters regarding job vacancies out from scratch every time using a typewriter. She would like templates for job application letters that can easily be printed off rather than typed every time.

Xian Deport (Regional Manager)

- Has to produce up-to-the-minute financial figures for each store and for the company as a whole in a form that's easily understandable by the general manager. The problem arises when managers ring at the last minute to change sales figures and Xian's report has to be recalculated. She would like to be able to recalculate her figures automatically if new information arrives late. She would also like the system to present the information is a way that is instantly understandable and easy to follow .

Fabio Constantino (Promotions Manager)

- Main responsibilities are to produce a staff newsletter and to design promotion material. Is unable to work with current IT system (consisting of a few stand-alone computers) as it struggles to complete even the most basic word processing tasks. There is no stylised format to work to and his documents and his documents are often changed when they're sent to the printers. Would like to carry out final draft himself.

Rehen Wilson (Personnel Manager)

- Currently uses index card system for staff details that are backed up onto a word processed document. Both records have to be updated whenever there is a change.
- The Accounts department want weekly lists of hourly paid staff so their payslips can be produced. He has to check all the records and type out a list manually.

Sam Williams (Accounts Manager)

- Every week the accounts department get updated employee information (contact details etc) from Rehen in personnel. Then get hours worked form each department manager and finally have to calculate then type all necessary information onto each payslip so they can be passed to the security department ready for wage collection.

Proposed Solutions

'Top Toggs' seem to be lacking in a standard to work to. Both Fabio & Zima mention this. Therefore my first task is going to be to produce a logo for 'Top Toggs'. This will help 'Top Toggs' create a corporate image easily identifiable by the customers.

Zima's system writing letters personally to every single individual who applies to 'Top Toggs' is a major time-waster therefore I am going to create templates that can be easily filled in with relevant details then printed and sent in a fraction of the time.

Another time-wasting system is the 'Employee's Records' system used by Rehen in the Personnel department. I plan to implement a database that will allow Rehen to very easily search for, retrieve, create, delete and manipulate data. He will also be to automatically search for and print a list of all hourly paid staff rather than have to manually search for the information himself.

An easily automated process is that of calculating weekly payments to hourly paid staff. I plan to create a spreadsheet that will calculate these figures for Sam and see if it cant make is 'mountain' a little more of a smallish pebble!

Xian's problems with late arriving updated data will also be solved with the implementation of a spreadsheet. A spreadsheet will allow her to alter the any late arriving figures and it will all be automatically recalculat ed. She will also have the option of creating charts and graphs to allow Mr. Bossman to easily comprehend the financial workings of his business.

The accounts department should have less of a job on their hands with the aid of a Mail Merge system which will take required information from a source (e.g. word processor or spreadsheet) and create ready -to-print pay slips.

Finally the staff newsletter Fabio has to produce should be made much easier with a D.T.P. package. This will allow Fabio to create materi al that looks just as he intended.

In Summary I am going to design, create and implement:

- **A new corporate 'Top Toggs' logo**

- **Template letters to (un)successful job applicants**

- **Database of employee details**

- **Financial model that calculates weekly payments**

- **Financial model that produces monthly profit/loss figures**

- **Hourly paid staff pay slips**

- **Staff informational newsletters**

Intended Method

Creation of new corporate logo

I plan to design my logo initially in Microsoft Word XP as it has limited yet powerful drawing tools capable of producing the kind of logo I am aim to create. It would be possible to use other specialised drawing packages however as my task will not require such advanced features they would serve as little more than a timewaster. Once I have created my logo it will then be transferred into Microsoft Paint 5.1 to be saved as a bitmap, a format recognised by nearly all applications. Text and instructions will be inputted. Text formatting, resizing and 'autoshape' creation processes will b e applied and an image (the new logo) will be outputted.

Creation of template letters to successful or unsuccessful job applicants

The text of the letters will be written in a word processor (Microsoft Word) although any rich-text compatible word proces sor would be usable. Text will be inputted the processes of text manipulation, resizing and formatting will be applied. Two word processed documents will be outputted.

Creation of database of employee details

I will use a database application to create an employee database; this will be Microsoft Access XP. It would be possible to use any database application, however thinking about developing the project further, sometime in the future if Top Toggs wanted to be able to remotely manage their databases th is would be most easily achieved though an SQL system which is most compatible with access databases. Alternatively a spreadsheet application (such as Microsoft Excel) could be used to store information however database applications have features such as b eing able to filer or sort data, enter data via forms and incorporate Visual Basic scripts that are not available in spreadsheet applications. Data (details of employees) will be entered. Processes of sorting, filtering, amending, creating and deleting dat a will be applied and the output will be requested information, for instance the names of all employees working being paid by the hour.

Creation of financial model that calculates weekly payments

To create this subsystem I will use a spreadsheet package (Microsoft Excel). It would be possible to use different spreadsheet applications however Microsoft Excel is part of the Microsoft Office package and this will allow data from it to be easily mail-merged in the pay slips system. Data of the employee's hourly rate, hours worked and there name will be entered, the process of mathematical calculations (e.g. multiplication) will be applied and information will be outputted.

Creation of financial model that produces monthly profit / loss

As with the previous financial model I will be using Microsoft Excel, this is because it has some easy to use chart and graph creation facilities which will be utilised when creating easily understandable reports for Mr. Bossman. Financial information will be inputted the proc esses of mathematical calculations and chart / graph creation will be applied and requested information in the form of either text or images (charts or graphs) will be outputted.
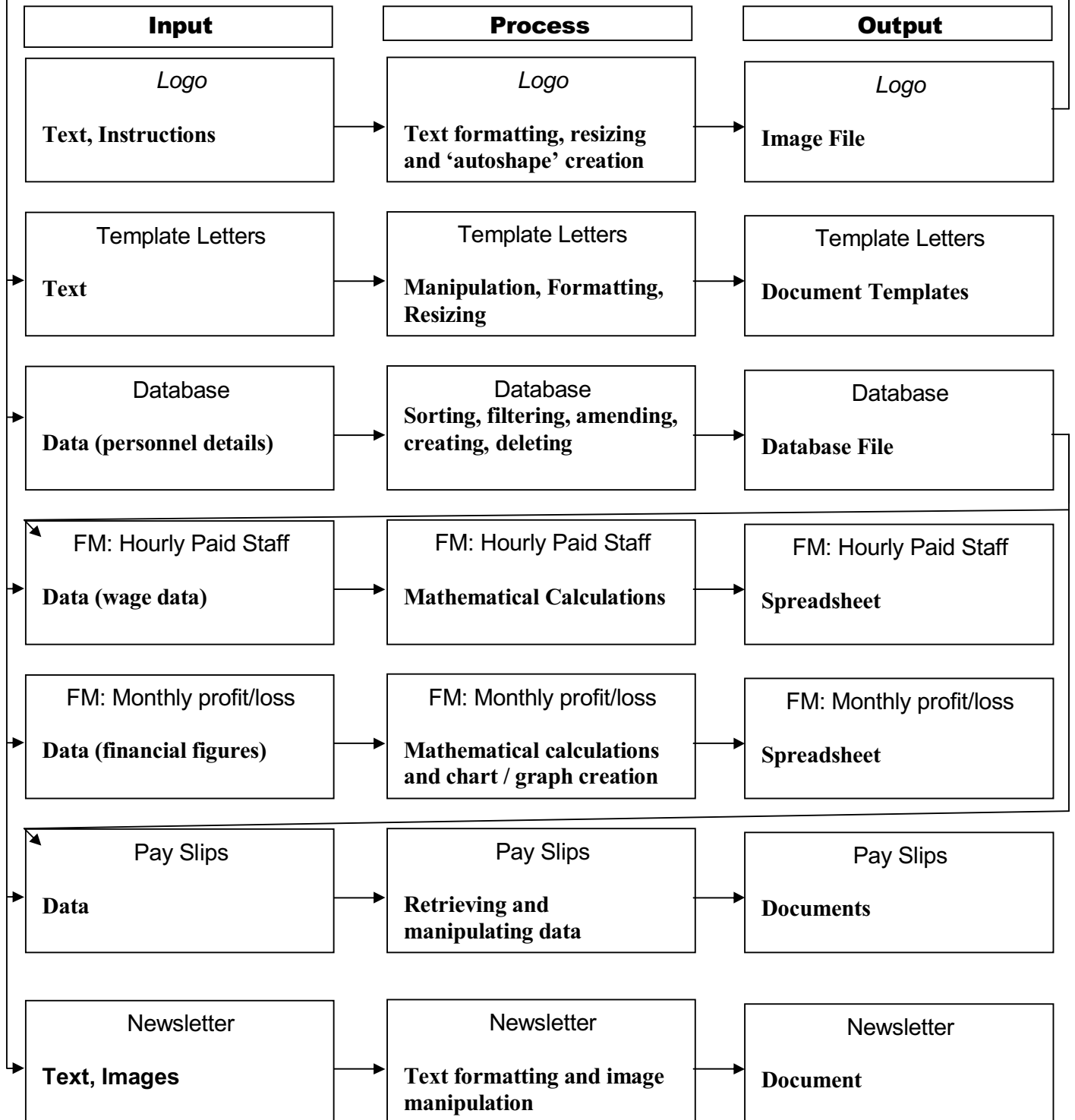
Creation of hourly paid staff pay slips

For this task I will use Microsoft Word; however it will draw data from Microsoft Excel and Microsoft Access files. I have used all three of these packages because data transition between applications of different creators (e.g. Microsoft, Lotus) can prove troublesome. Instructions as to t he location of data sources will be inputted, the process of retrieving and manipulating data will be applied and a pay slip in the form of a word document will be outputted.

Creation of staff informational newsletter

For this I will use a Desk Top Publ ishing (DTP) package: Microsoft Publisher. I have chosen this because data from other Microsoft applications will be used within it. Microsoft Publisher is most suitable because it allows the user to very easily manipulate images or other objects within th e document. Information in the form of text or image will be inputted, the process of text formatting and image manipulation will be applied and a D.T.P. document (staff newsletter) will be outputted.

System & Data Flow Diagram

Input	Process	Output
Logo **Text, Instructions**	*Logo* **Text formatting, resizing and 'autoshape' creation**	*Logo* **Image File**
Template Letters **Text**	Template Letters **Manipulation, Formatting, Resizing**	Template Letters **Document Templates**
Database **Data (personnel details)**	Database **Sorting, filtering, amending, creating, deleting**	Database **Database File**
FM: Hourly Paid Staff **Data (wage data)**	FM: Hourly Paid Staff **Mathematical Calculations**	FM: Hourly Paid Staff **Spreadsheet**
FM: Monthly profit/loss **Data (financial figures)**	FM: Monthly profit/loss **Mathematical calculations and chart / graph creation**	FM: Monthly profit/loss **Spreadsheet**
Pay Slips **Data**	Pay Slips **Retrieving and manipulating data**	Pay Slips **Documents**
Newsletter **Text, Images**	Newsletter **Text formatting and image manipulation**	Newsletter **Document**

Appropriateness of Solution

The introduction of ICT into 'Top Toggs' seems to be the logical step forward for the business, to allow it to perform more efficiently as a business and consequently benefit financially.

It is important, however, to consider the alternatives. The current system is still operable, however inefficient. It would be possible to improve the current system without the use of computer systems. For instance the introduction of a new filing system could be introduced to all ow information to be retried and sorted easily however all manual systems come with limitations: They are all slow and have a much higher chance of error as everything is done by human hands.

If you were to give a computer and a human being identical mat hematical data to calculate as well as doing it several hundred thousand times faster the computer would have an error margin that would have to be written in standard form, however a human being (who we will assume is using a calculator) has to enter all the numbers manually and therefore has a much higher chance of miss-calculating.

A task such as mail merging could take a human being up to an hour to do about 30; however a computer could quite comfortably do 30 in just under 2 seconds, and, again, would have such a tiny likeness of error it becomes negligible.

Ease of use

My system should be easy to use as it is broken down into seven sub - systems, which will all be used by specially trained 'Top Toggs' staff. This will result in a minimum amount of tr aining and maximum productivity from staff. I will expect confirmation of this when the user proceeds to evaluate the system.