Analysis of Final Project

Introduction

Last year, my Uncle overtook the operation of a video shop called "Mercury Entertainment" in Garstang. I am involved because he had troubles running the shop, and he thought that the problems could be run using ICT. I hope I will be producing solutions to problems that I have recognized, using ICT. I hope to achieve a re-usable system that someone else can use, that is free of bugs, and can do everything that is needed in the running of a video shop. I am hoping ICT can help me organize things quickly and accurately, to help my Uncle.

Analysis

Friends and customers of my Uncle have told him that the shop is not living up to its expectation. Having offered to create solutions using ICT, I will use this to run the business for a few days, and then if my Uncle thinks it is an improvement, he can use it full-time on his own.

I am going to make the business system successful, and re-usable, and let my Uncle carry on running the business, with instructions on how to use the system. The video shop is run simply at present. The application form is photocopied, and the letter is written out every time, this causes lots of time to be wasted. When people do not return a video, the letter to the defaulter is written out by hand, causing lots of time and effort to be wasted. In addition, the video, rentals, and customer lists are done by hand and it is time-consuming to look through and hard to update neatly. The videos are also not organized in any particular way, and my Uncle had to look through hundreds of videos before he found the one that the customer wanted. Furthermore, a problem with the running of the shop is that it has not been noticed very well, and not many people have signed up for membership. Now, the employee in the shop had to look through hundreds of video labels for the right one, wasting serving time and delivery in the shop. In addition, the video shop uses tatty membership cards, with which were ruined easily and became lost a lot of the time. Additionally, at the end of everyday, my Uncle has to go through every index card, look who had rented what out, and have a look to check if anyone had defaulted. If they had, he has to write or typewrite a letter individually.

I need to create this system because now, the video shop is creating everything manually, i.e. by paper, and it is not as effective as it could be. In addition, the employee in the shop has to write the defaulter letter out every time. I hope that ICT will

help me to manufacture a single-integrated system, which will solve all the problems in a particular way. What's more, ICT will help me to be accurate, and quick at the problems I face. Because ICT is digitally based, it can do thing much faster than typical processes, and can save a lot of boring and energy-consuming work. ICT also helps you to produce higher quality work compared to handwriting, and if set-up correctly, it never makes a mistake, unlike humans. Using ICT I can also produce multiple copies of whatever I make, each one looking as good as the first. What's more, information that is held on a computer can be easily copied onto another computer electronically.

To solve these ongoing problems I could create a promotion logo, and give some application forms out to different shops as promoting techniques. This could also go with all my letters, and public things. I could also create a data capture form that will collect data of people who wish to rent videos from the shop, which would be distributed around various key places in Garstang.

With the new system, I will be able to click on a 'New Member' button, and put their name in, and this will automatically appear in the list, easy to find. The new system will enable me to click on a "Defaulter" button, and then being able to select the video that has not been returned, and then it will automatically create a new letter, that explains that they have to return the letter, and if they do not return it they have to pay etc.

ICT will help because I can store all the customer and video lists on a screen display list, and that I can update quickly and securely, as well as having a search function, that will enable me to find the video or customer that I need to find information about hastily. I also need these to lists to interact, so that they will update with each other. That is, if I use a "New Video Out" button, and insert the customer's details and the video code that they wish to rent, it will add it to the rentals list, which will show the customer number, video number, and date due back. This will include a box that can be clicked when the video is returned, that will take the video off the rentals list. To help prevent lost membership cards, I have come up with a better way of identifying members who enter the shop. Instead of giving a membership card, the customer can give their password, and name, address and postcode, which they should give on the initial application form. To protect their security if there are other people in the shop, the details should be written down and passed over the counter while in the shop. This will save costs printing membership cards, and save time and effort, when customers lose the cards, it saves costs, and increases the number of customers, as they like the easier scheme.

I will also have to put the identification number of each video on the box and keep it on the outside, and then arrange them in a numerical order, so that they can be identified by the number, and

not by name, which would be a whole lot more a confusing and time wasting.

As well, I will have to create a front-end display that will host all these "buttons" for an employee or me to use when renting and collecting videos, sending a letter to a defaulter or adding a new member.

Customer's can rent videos for an evening, and ought to return the video anytime the following day. At the end of the day, the employee should click a button and it will print all the people who have not brought back a video within a day.

The following is a list of the major things I have to do to overcome the problems faced:

1) I will have to find a way to tell people about the video shop and membership details.
2) I will have to create a triple relating data storage system, which will hold video, customer, and rentals list and some way of inputting the new member information and also it should include a front-end interactive display, which employees in the shop can use simply, although with instructions, to do all the day-to-day functions the shop will do. This should also include a search facility to find videos.

Divided up, each task looks like this:

Task 1:

a) I will create a logo that will appear on all the materials to do with the video shop itself.
b) I will make the data capture form / application form with which people can acquire membership.

Task 2
a) I will create a list of videos, with their specific number, a list of customers, with their specific number, and their personal information, and a rental list, which will show daily rentals, and who has a video out, and the day due back etc.
b) I will have to create the front-end display, make the links to each different branch of the system work, so it connects, and is free of bugs. This display will enable me to access the input area of each list easily, with no complex screens. I would also have to create the input areas of each list.

Analysis of Final Project

Task 1a

Input

For this task:
- I will need the name of the business – Mercury Entertainment.
- I will need some picture that I am going to use – which are - planet that could resemble the Mercury name and a video, which resembles the entertainment.
- I will need to insert text to attract customers to rent videos.
- I will need to use boxes, big enough for letters of text, to capture data.

Output

I am hoping my solution to provide me a logo that I can use in all the bits and pieces to do with the video shop. For example, it would go on the letter, the front-end, and the application form. This will enable people to identify the video shop distinctively.

Criteria for Success
For a successful solution, I would be looking for my logo to:
- Enable customers to set apart the video shop by means of this logo.
- Be easy to replicate, so that I can put it on the material quickly.
- Look professional, so that the business gets a good reputation.

There are several ways that I could produce the logo:
- I could produce it using a word processor like MS Word, it could do the job, at the end of the day, but I do not think it would give me the specialized aspect that I want to achieve, and does not include as much publishing tools as other programs.
- I could produce it using a paint package, like MS Paint, but this is a very basic program, and does not feature some tools I would require.
- I could use a desktop publishing program like Serif Page plus eight, this is a good program, which could get the job done fully, and help me to tweak the logo to perfection.

Analysis of Final Project

Task 1b

Input
For this task:
- I will need a the following titles: Title, First Name, Last Name, House Number, Road Name, Town, Postal Code, Home Phone, Date of Birth and Password.
- Input boxes that will be ready for input of letters in upper case format.
- I will need the logo from task 1a, so that the shop is promoted by this attraction of the eye, and so that people can distinguish our shop from others with this logo. In addition, so I can use the created logo from 1a.
- I will need the address so that people know where to bring the application form back to, which is 18 Station Road, Garstang, PR3 1HP. The reason it is so small is that Garstang will probably be the only town that gets the application forms, so it is unlikely that people that are not familiar with Garstang will obtain one.

Output

I am eager that my solution will provide the shop with a means of gaining members. It should provide an attracting, input form, in that people can fill in, to become a member, and start renting videos at will.

Criteria for Success

- Eye-catching, so people sign up to be a member, and so the video shop actually makes money.
- It should have a good presentation, so people are attracted to it, and do not be put off.
- Very quick and easy to reproduce, so that I can make a lot of them, and distribute them around the town.
- Moderately colourful and bright, as to gain people's interest, and encourage them to apply for membership.
- Easy to fill, so that people have no problems when applying for membership.

There are several ways that I could produce the data capture form:
- I could produce it using a word processor like MS Word, it could do the job, at the end of the day, but I do not think it would give me the specialized aspect that I want to achieve,

and does not include as much publishing tools as other programs.
- I could produce it using a paint package, like MS Paint, but this is a very basic program, and does not feature some tools I would require.
- I could use a desktop publishing program like Serif Page plus eight, this is a good program, which could get the job done fully, and help me to tweak the logo to perfection.

Task 2a

Input

For this task:
- I will need the list of customers, which I will get from various sources, made up from the following subjects: Customer ID, Title, First Name, Last Name, House Number, Road Name, Town, Postal Code, Home Phone, Date of Birth and Password.
- I will need the list of videos, which I will compile from the videos in stock. The list will have the following headings: Video ID, Video Name and Certification.
- I will need the layout of the data capture form, from Task 1b.

Output

I am confident that the task will produce three lists that contain the customer, rentals, and video list. It will help me to hold all the information about each customer neatly, and safely, and enable me to search within the list to find a specific customer. Additionally the video list will show all the videos and their specific number assigned to them. The rentals list will show the customer number, video number, the date the video went out, and the day it came back, (which updates after you click a button, "Returned").

Criteria for Success

The task should:
- Be easy to use, so employees and my Uncle can access the lists quickly with no hassle.
- Be free of bugs, so that the system does not crash while serving a customer.
- Be simple to use, so that employees do not get confused at the same time as serving a customer.
- Be able to add and delete rentals.

Analysis of Final Project

There are several ways that I could produce the three lists:
- I could use MSWorks Database, but this would be hard, near impossible to link them together, though you could still do the basics.
- I could use MSAccess. This is a professional program, but would do what I want, and would link them together.

Task 2b

Input

- I will need the three lists, so that I can link them together, and create methods of input for each, so that information can be input in a user friendly way.
- I should also create a main menu sort of thing so that I can access all these input windows easily, with no complicated screens to plough through.
- I will need the logo to put on the front-end.
- I will need a list of options that are possible, so that I can implement them into the menu.

Output

I am hoping my solution to provide me with a working system-based front-end, which shows me several options, which enables the user to click on a certain part, and be taken to each part of the list quickly. For example if someone wants to take a rental off the list, the user can click "Rentals" on this interactive screen display, and it will take them to the rentals list, where they should have other options available to them. On the other hand, if the user wanted to add a new member, they could click on "New Member", and the data entry form would appear, ready for the input of information, direct from a data capture form. Moreover, I hope that my solution will provide me with a working input system so that the user can put the information directly from the data capture form, letter-to-letter, straight into the customer list. I also think it should have a video and rentals input.

Criteria for Success

- It should be simple to use, and come with a set of instructions, just in case.

Michael Boulter 11.7

Analysis of Final Project

- It should be free of bugs, so that the system does not crash while serving a customer, and so that people's information does not get lost in the system.
- It should have a simple layout, but still be professional, in the case of a customer looking at it.
- It should be quick so that if a customer comes in to rent a video, the user is not wasting half the time putting a new member in.
- It should be simple and quick to use.
- It should automatically add the information to the customer list, so that it can be used straight away, if they want to rent a video.

I will have to use the same program as the lists, because a front-end can only be built while linked to the lists, so it would have be the same program.

Most of the tasks will share the same information. Well they will be based around the same three lists, anyway. I will need to complete the list task before the others (except of the advertising task) because they are all centred on the lists. The data capture form is the input, which provides all the information in the customer list. On top, the initial logo task is the key to the creation of the data capture form, for example, there has to be a logo to recognize from which video shop the data capture form is. The front-end also links up the lists, and provides a simpler input mechanism for the employee in the shop. It will be surface of the solutions. It will provide a link so that you will have to go to the front-end before you can do any task. For example, to input some data to the customer list, you will have to click on "New Member" on the front-end, and then it will load the input window. (This is presuming it is on the user interface and not actually programming the system). I have decided that I cannot complete the work on links between different parts of my solution until I have finally chosen suitable software in my design.

Analysis of Final Project

System flow chart for creating a new customer record

Data Capture Form

Completed by prospective customer

Yes

Error on Form?

No

Input by employee at shop

Visual Check of Form

Validation

Valid?

No

Display Error Message

Yes

Customer File

Michael Boulter 11.7