CMT3991 Individual Project Proposal

1 Title:

A Relational Database system to assist the stock control operation of Rai's Newsagents.

1.1 **Keywords:**

The keyboards from the title are; **Database**, **Stock Control** and **Newsagents**.

Problem definition:

- 2.1 The problem is that the shop owner does not know the quantities and value of the stock on the selves and in the storeroom. As a result of this the owner does not have the accurate numbers of how much stock is needed. This results in the owner (Mr Khan) running out of stock and other items when he could have sold more if he had more.
- 2.1.1. When making an order to the wholesalers Mr Khan has to phone and make the orders manually. This sometimes takes a lot of time and can result in wrong orders or the wrong stock being ordered. Mr Khan has then got to send the incorrect stock back to the wholesalers and wait longer for the correct stock. This can cause losing valuable customers as they may have orders for certain items, which they have especially reserved.

3 Aims:

- To produce a relational database which will be able to order stock for Mr Khan and in the correct numbers.
- To reduce the cost in returning over-stocked items back to the supplier.
- Provide a means of protecting confidential data through a security feature. For Example, Passwords.

4 **Objectives:**

- To research user requirements and background knowledge of newsagent businesses in order to create and implement a user friendly system
- Gain information of the quantities and the items which need to be ordered on a regular basis
- To find the most efficient stock levels the business requires through comparison of customer orders
- Establish a user-friendly interface to help Mr Khan through a relational database.

5 Evidence of Requirements:

5.1 It is very important that the manual system where the shop owner (Mr Khan), it is essential to manually assign quantities and items to deliver the items on demand. Rai's Newsagent operates on a very small scale and relies on a manual method of storing stock items. A change in prices requires amending

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and updating stock values. Since the current process is to manually take account of this, the shop owner will have to go through this repetitive process and it will take a very long to complete this process. Keeping information of stock items within the shop takes up storage space.

5.1.1 It is thus important to understand an implementation of a relational database, which will store data accurately whilst proving easy to use. As the shop owner is not completely I.T illiterate, a relational database implementation would not require much knowledge of its operation. There will also be a users manual provided in addition to the system to help guide Mr Khan in case of an emergency.

Context Description:

In simple terms it is a Newsagent business and it concentrates on how stock control is an essential part of its operation. It is customary that Mr Khan has complete control over the order of confectionary items as well as newspaper and magazine deliveries, information of such consistent item quantities are difficult to get hold of. The nearest competitor to Rai's Newsagent is within a 500-metre radius, and demand for items among local residents is high. Mr Khan's newsagent is situated on a main road in Ealing, West London. This newsagent sells a variety of products that range from Tobacco, confectionery and stationery. The small organisation has formed a relatively good relationship with its local customers. The majority of sales revenue is gained from the counter sales.

7 Research method:

In order to realize and implement a relational database to ease the stock control of items such as confectionary and stationary, attention must be given to the user requirements. Therefore I will interview certain representatives from Rai's Newsagents and will try to discover the user's needs. Due to the user's I.T incompetence, research into user-friendly interfaces and how this can be accomplished within a database environment will also be conducted. A variety of database software will have to be consulted before deciding on the correct environment that would help satisfy user requirements. Although it is only after discovering the user requirements, that this idea can be researched.

8 Brief Product Description:

The aim is to implement a relational database system to help the stock control of all the items in the shop. The product will include only one security level as there will only ever be one user (Mr Khan). The intended implementation of the database will allow the Mr Khan to view, edit and print information like for example customer details. To prevent data redundancy, validation features will be implemented to prevent Mr khan from entering and storing incorrect data. A report summary regarding stock orderable from suppliers will be achieved through merging information from the database into a word document.

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9 Deliverables:

- Report of interview conducted with Mr Khan owner regarding implementation of database.
- Specify the design, of the relational database system including the features that are going to be implemented.
- Produce a working prototype of the database system to show to Mr Khan
- User-test the system with Mr Khan.
- Report on user feedback from both Mr Khan.
- Produce a final version of the relational database system.

10 Outcome/Product Evaluation Approach

The result of my project will be to create and implement a relational database to help the stock control of the entire shop. To guarantee that all aims and objectives have been fulfilled through the design and implementation stage, a benchmark approach is going to be used. This will involve comparing the aims and objectives with the final version of the relational database in order to find out whether these have been fulfilled. The database system will also be user tested, this will be done so that any weaknesses if any can be identified and then corrected and improved.

11 Resources

The resources I will need for my system will be an up-to-date computer with the latest edition of Microsoft Windows XP. This will be necessary because Windows XP is very basic to use and very reliable to understand. Windows XP is also a plug and play operating system, which basically means that any hardware attached to its USB ports will instantly be recognised by the system. This means the owner will be able to back up all the relevant information on a storage device such as a portable hard drive which look like lipsticks. The software package that will be installed with the system will be Microsoft Office XP. I will be using this package as this offers the best database developer in Access. With Access XP the owner will be able to:

- Produce the correct tables, which will be able to store information on stock
- Produce the correct forms for deliveries
- Produce the correct Reports
- Produce the correct Queries, which will show which items need to be ordered

With Microsoft Office the owner will also be able to use its other features and resources such as Word and Excel.

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12 Reference List:

Broad, (2004), http://www.businesslink.gov.uk/bdotg/action/detail;jsession.html

13 Bibliography

http://dnye.co.uk/stock.shtml

http://www.bized.ac.uk/dataserv/extel/notes/sto-th.htm

14 Project Plan

This will be my project plan and it will illustrate all the stages I will undertake to complete the system. The plan will be shown as a Gantt chart, which will show the tasks on the y-axis on the side and the weeks on the x-axis going across the bottom. The final deadline date for the project is as yet unconfirmed.