Scenario for the Assignment

R004: Handling data using databases

You have just started to work for a small business called 'eastonhome capes' which produces cape accessories for lego minfigures. The initial business was through ebay however the business has been very popular and recently created its own website to promote and sell the capes.

There is currently a database of all customers that use this new website. Records of sales are kept in a file and there is a price list and images of the capes on the website.

'eastonhome capes' wants to make better use of data to enable the business to be more customer friendly, analyse sales data and send promotional materials to particular groups of customers.

To help ensure that the business is efficient and successful you need to modify the database so that it will store and organise all the business data efficiently, in a way that will make it easy to find relevant data when required. Output from the database needs to have a consistent house style.

To help you, 'eastonhome capes' has provided you with a copy of their existing customer database. The price list and images of capes can be obtained from their website. They have also included a record book, showing sales from four months in 2012. This should be sufficient to allow you to demonstrate how the database can be modified to meet 'eastonhome capes' requirements.

You will need to test your modifications and analyse your results as you develop the database, to ensure the final system is suitable for the business needs.

Task 1: Modifications

Parts of Learning Outcomes (LOs) 1 and 4 are assessed in this task.

There is currently a database of customers but no one has spent the time to make this as efficient as it could be. Originally customers had to pay for capes via paypal, but they can now also pay by credit card or debit card. The business has been recording details of sales into a sales record book and now also needs to include methods of payment used.

Remember the importance of testing your database and ensure that any necessary amendments are implemented.

A.   Modify the existing database to ensure that it becomes more efficient for the users by:

- storing customer information as efficiently as possible and make sure that details of new customers can be added easily and accurately
- allowing the business to store any additional customer data needed so that special offers / free capes can be sent to customers on their birthdays. 'eastonhome capes' do not have this data for any of their existing customers but they want the database to allow them to enter it for all new customers
- storing information about capes and prices
- storing information about sales so that details of every sale can be easily retrieved
- allowing the company to store information on methods of payment for future sales
- adding validation rules where appropriate.

B.   Explain the reasons for any validation rules you have added, giving reasons for your choices.

C.   Explain any testing you have carried out and provide justification for your choice of method(s).

Task 2: Outputs

Learning Outcomes (LOs) 2 and parts 1 and 4 are assessed in this task.

'eastonhome capes' now has better records of customers, capes and sales, it is possible to use the data to produce a range of queries and reports to meet business needs, which include:

- identifying customers living in particular counties, so that invitations can be sent to promote local events where 'eastonhome capes' are being sold. The next event is in Kent, with more planned in different counties
- promoting new ranges of capes to existing customers by email. The latest range will appeal particularly to male customers
- identifying customers who have not yet paid, allowing reminder letters to be posted out to these customers.
- identifying customers who have bought particular types of capes in particular months, so that they can telephone special promotional offers to different groups of customers. For example, they had a special promotion of capes for the new lego sets 'Lord of the Rings' in June 2012 and needed to telephone all customers who had bought this type of cape in that month.
- Identifying the types of capes bought by men and those bought by women at different price ranges; this would help the company decide which types of capes to develop in the future. For example, the company might want to know which types of individual capes costing between £1 and £2 were bought by men.

Remember the importance of testing your database and ensure that any necessary amendments are implemented.

A. Create queries and reports that will meet the needs of the business. Reports should have a consistent house style.

B. Explain any testing you have carried out and provide justification for your choice of method(s).

Task 3: User Interface

Learning Outcomes (LOs) 3 and parts of 1 and 4 are assessed in this task.

'eastonhome capes' database needs to be as easy to use as possible. Staff will need to keep the data up to date and use the queries and reports you have created.

Remember the importance of testing your database and ensure that any necessary amendments are implemented.

A. Create data entry form(s) as appropriate for your database.

B. Produce a suitable menu-driven interface to enable the different parts of the database to be easily accessed.

C. Peer test the user interface for another person's database. Provide feedback on this interface.

D. Explain any testing you have carried out on your own user interface and provide justification for your choice of method(s).

Task 4: Analysis of Testing

Parts of Learning Outcomes (LOs) 1 and 4 are assessed in this task.

Analyse the results of the testing you have carried out during this assignment to ensure that the eastonhome capes database is suitable for its purpose. Identify any further modifications/ improvements that could be made and implement them where possible.