Stock Maintenance – Database Application
(Portfolio Assignment 8)

Objectives and Learning Areas:

For this Assignment you will be tested on the following areas:

1. **How to connect to a access database**

2. **How to add OleDb components to your form and set up the database connection**

3. **How to display data from a database table using the oledb components**

4. **How to Insert, Update and Delete record from the database table using the ole components**
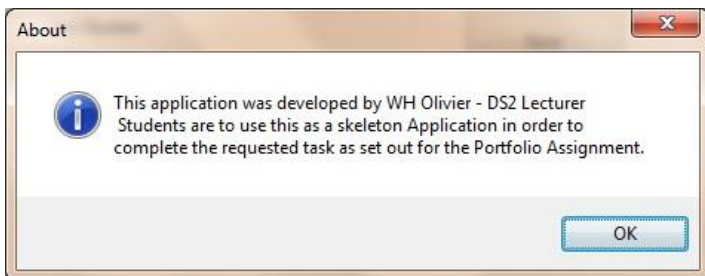
5. **How to use TabControls**

Introduction

A Microsoft Access database contains the following tables with their fields.

- Cashiers (UserID, Fullname, Username, Password)
- StockCategory (CatCode, Description)
- StockList (ItemNum, Description, UnitPrice, CatCode, PictureName)
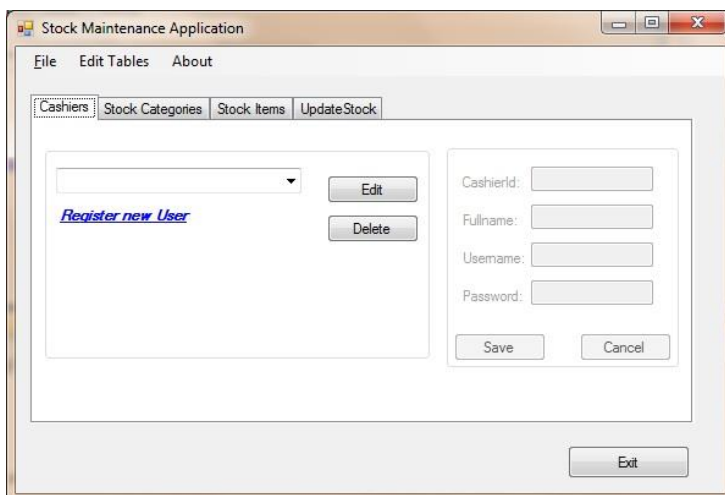
These tables must be maintained (Add, Edit, Delete records) with the use of a Visual C++ Application. The Screen layouts as follows:

Screen Layout:

This screen will be the first screen to appear.

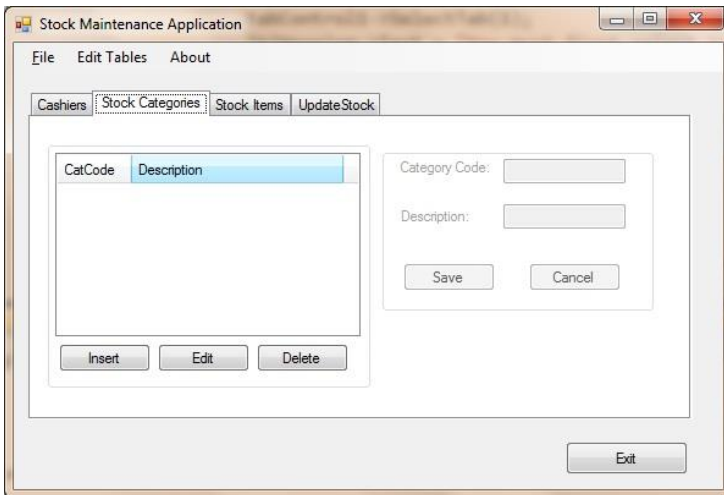**Figure 1 - Information Screen**

On this screen you can view and add and delete Cashiers. The drop downlist will contain a list of Cashiers Username. When selecting any of those, it will display the relevant information in the textboxes on the right. If the user wants to register a new cashier, he will click on the blue underlined label. To delete a record, select the appropriate username and click delete. When the Edit or '*Register new User*' is selected, the controls on the right will be enabled.

The user must first save or cancel to continue to any other screen
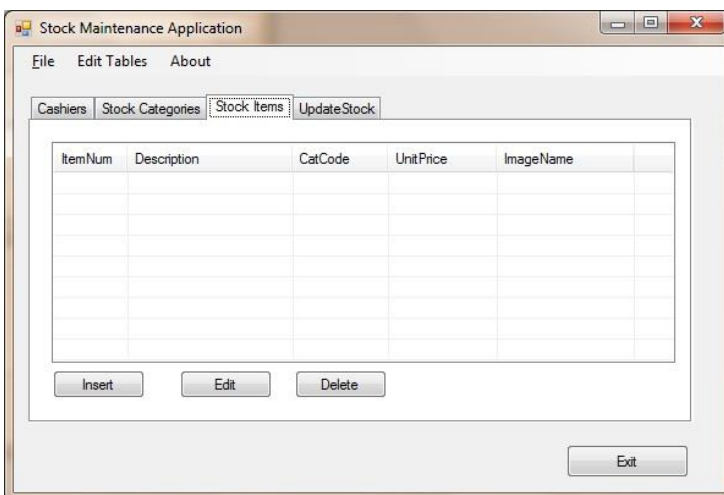
Figure 2 - Cashiers Tab

Figure 3 - Stock Category Tab

On this screen you can Insert, Edit or Delete Category records. When the Insert or Edit button is selected, the controls on right is enabled and the user can either add a new record or edit the displayed record.
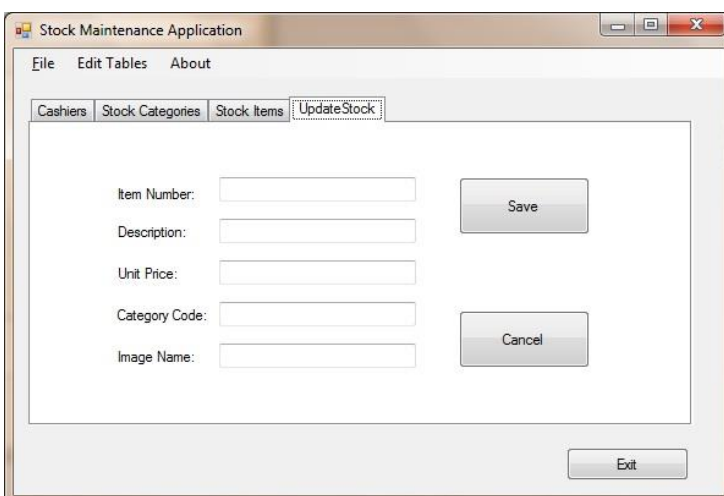
The user must first save or cancel to continue to any other screen

Figure 4 - StockList Tab

On this screen the user can select to insert, edit or delete record. When the insert or edit button is selected, the UpdateStock tab will be displayed (Figure 5). After the user has saved a record on the UpdateStock tab, the update record will display in the listview.

Figure 5 - UpdateStock Tab

The UpdateStock tab must be responded to before the user can continue to any other tab. This means that the user will either have to press the Save or Cancel button.

Requirements

Given the above specification:

1. **The Cashiers Table**
   a. The Application must be able to add Cashier records which include a unique id (id start from 1001 upwards), the **fullname**, **username** and **password**.
   b. Validation must be done when adding supplying a **password**.
   c. A password must be 8 characters long, must contain at least one digit and one special character.
   d. These validations must be done before the record is added to the table.
   e. You must also **validate** the **username** to check if a record with that same username does not exist in the table.

2. **The Stock Category Table**
   a. These records will be to categorize the varies **stock items**

3. **The StockList Table**
   a. Here you will **Insert**, **Edit** and **Delete** Stock Records.
   b. When Insert is pressed, focus is transferred to the **UpdateStock** tab with the textboxes empty. The user can then add the appropriate values and press Save to return to the **StockList** tab.
   c. In order to select an image name (*pictureName*), a lookup button is supplied. You will have to add the **FileDialog** control to lookup a picture file and then assign the filename to the textbox.
   d. When Edit is pressed, the values of the selected record in the listview are sent to the respective textboxes in the **UpdateStock** tab.

4. Write the varies code segments for the Insert, Update and Delete capabilities of the application.

5. Write the code for the appropriate confirmation messages. (E.g. When deleting a record or exiting the application).

- **THIS IS NOT A GROUP ASSIGNMENT.**
- **ORIGINALITY IS IMPORTANT. *THIS SAMPLE SCREEN BUT CAN BE MODIFIED TO INCLUDE YOUR OWN LOOK AND FEEL.***
- **THE STOCK ITEMS CAN BE FROM ANY BUSINESS PRACTICE (EG. Crocery Items, Tools, Hardware, Flowers)**
- **ADD IMAGES TO THE BUTTONS**
- **The skeleton application and Access Database file is available on blackboard.**

--- The End ---