LAB221Assignment

Type:	**Long Assignment**
Code:	**J2.L.P0003**
LOC:	**500++**
Slot(s):	**N/A**

Title

Food management application

Background

N/A

Program Specifications

In this assignment, you are required to build food management application, in the form of a desktop application. The program has basic functions: login, add, update, delete food and category 's information. You are required to use the basic components to design interfaces, use the tabbed pane to organize food management and category management on the one screen. The Microsoft SQL Server must be used to store the database.

Program organization must clearly separate functions according to MVC model.

Database name: FoodManagement

TblUsers

Field Name	Type
userID	varchar(10) (Primary Key)
fullName	nvarchar(50)
password	varchar(50)
status	bit

TblFoodCategory

Field Name	Type
categoryID	varchar(10) (Primary Key)
categoryName	nvarchar(50)
description	nvarchar(200)

TblFood

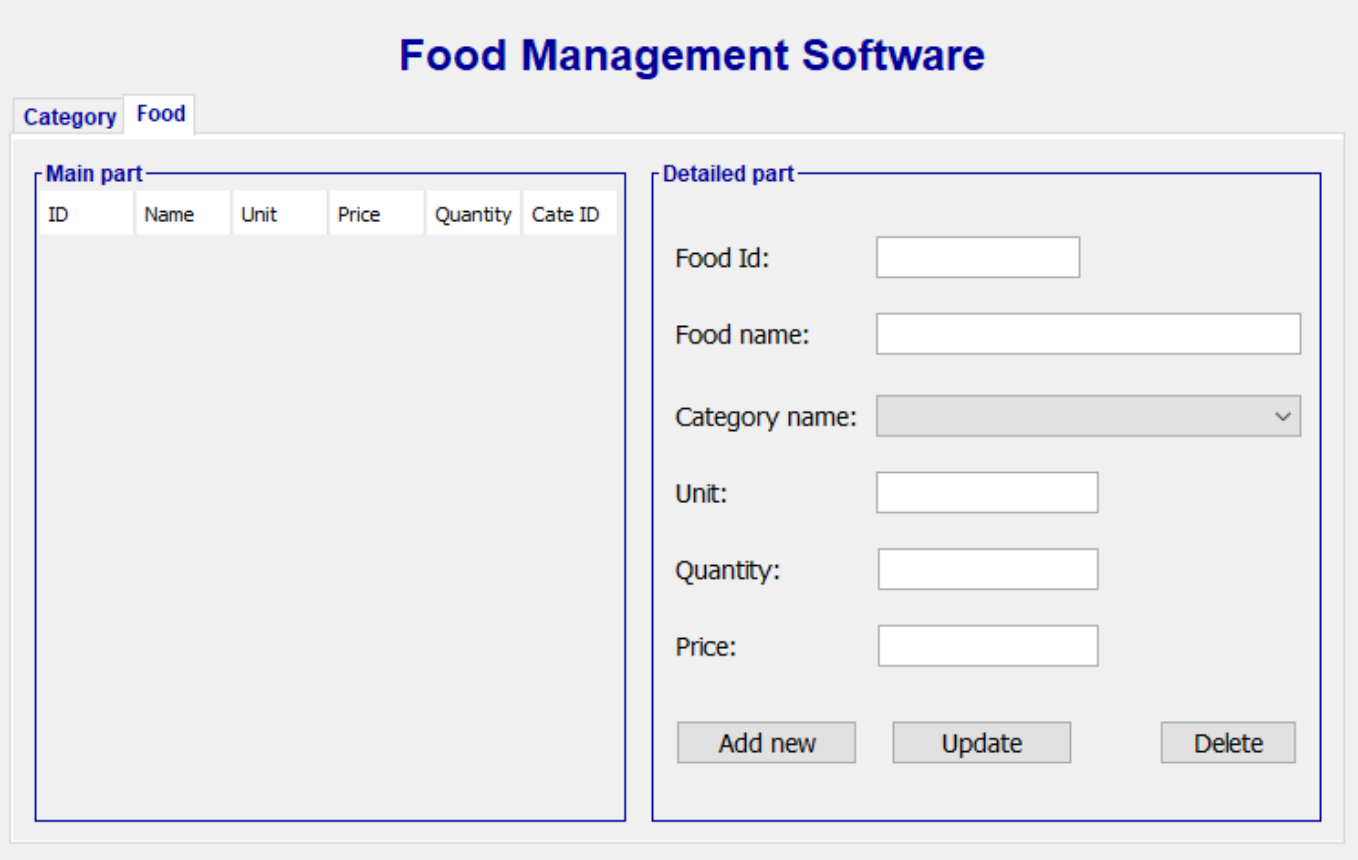
Field Name	Type
foodID	varchar(10) (Primary Key)
foodName	nvarchar(50)
unit	varchar(50)
price	float
quantity	integer
categoryid	varchar(10) (Foreign Key)

Features:

This system contains the following functions:

- **Function 1: Login – 50 LOC**
  - In order to access the food and category management, an authentication is required.
  - The actor enters userID and password, the function checks if the userID with the password is in the available user list, then grant the access permission. If not, a message would appear notify that user is not found.
  - If login is successful, then go directly to the management screen.
- **Function 2: Display category – 50 LOC**
  - The screen is divided into 2 parts: main information and detailed information.

- **Main part**: this part lists all available categories with their information (categoryID, category name, description) in the system.
- **Detailed part**: when you click a row on the table, the details of the respective category are displayed some information such as categoryID (disable), category name, description.
- In this detailed part, three buttons are shown to perform following functions such as Add new, Save and Delete.



- **Function 3: Add new category – 50 LOC**
  - The user presses the Add New button to clear the information at detailed part, and system prepares for new data entry.
  - The user inputs new information of category. Then user clicks the Save button.
  - The program checks the validity of data, if data is not valid then display an error message, otherwise system inserts new category into the database.
  - The category table must be refreshed after new data has been successfully inserted.
- **Function 4: Update category – 50 LOC**
  - The user clicks on the category that she wants to modify on the category table.
  - The details of the respective category are displayed.
  - The user changes the information of category (not allow modify the categoryID). Then user clicks the Save button.

- The program checks the validity of data, if data is not valid then display an error message. Otherwise, system updates category information.
- The category table must be refreshed after data has been successfully updated.

- **Function 5: Delete category – 50 LOC**
  - The user clicks on the category that she wants to delete on the category table. Then, user clicks the Delete button.
  - The program must display a message to confirm the deletion. If the user confirms, system will delete the selected category.
  - The category table must be refreshed after data has been successfully deleted.
  - **Note**: if the selected category is containing at least one food, system cannot delete it.

- **Function 6: Display foods – 100 LOC**
  - The screen is divided into 2 parts: main information and detailed information.
  - **Main part**: this part shows all available foods with their information (foodID, food name, unit, quantity, price, category)
  - **Detailed part**: when you click a row on the table, the details of the respective food are displayed some information such as foodID (disable), food name, category name, unit, quantity, price. The categories are displayed in a combo box (choice) component. All available categories are loaded into the category combo box as Category ID – Category name format.
  - In tdetailed part, three buttons are shown to perform following functions such as Add new, Save and Delete.

- **Function 7: Add new food – 50 LOC**
  - The user presses the Add new button to clear the information at detailed part and system prepares for new data entry.
  - The user inputs new information food. Then user clicks Save button.
  - The program checks the validity of data, if data is not valid then display an error message. Otherwise, system will insert new food into the database.
  - The food table must be refreshed after new data has been successfully inserted.

- **Function 8: Update food – 50 LOC**
  - The user clicks on the food that she wants to modify on the food table.
  - The details of the respective food are displayed.
  - The user changes the information of the food (not allow modify the foodID). Then, user clicks the Save button.
  - The program checks the validity of data, if data is not valid then display an error message, otherwise system will update food information.
  - The food table must be refreshed after data has been successfully updated.

- **Function 9: Delete food – 50 LOC**
  - The user clicks on the food that she wants to delete on the food table. Then, user clicks the Delete button.
  - The program must display a message to confirm the deletion. If the user confirms, system will delete the selected food.
  - The food table must be refreshed after data has been successfully deleted.
- **Function 10: Store database on cloud – 100 LOC (extra)**
  - This function is used to store the database on cloud service as Azure SQL or Amazon service.

- The above specifications are only basic information; you must perform a requirements analysis step and build the application according to real requirements.
- The lecturer will explain the requirement only once on the first slot of the assignment.