PROG 8010 Assignment Week 10

You are only required to complete the programming problem that has been assigned to your group. However, you are encouraged to work through as many programming problems as possible.

Each group is to submit one solution to eConestoga. Someone from your group will be selected at random to present their solution to the class. Your mark on the assignment will depend on a combination of the quality, functionality, and adhesion to coding standards of your code. If you are absent without excuse, your mark for the presentation portion of the assignment (20%) is zero.

NOTE FOR ALL GROUPS: If you use a DataGrid control, you MUST set the AutoGenerateColumns property to FALSE.

Group 1/9 Problem – Multiform

Create a database named Personnel. The database should have a table named Employee, with columns for employee ID, name, position, and hourly pay rate. The employee ID should be the primary key. Insert at least five sample rows of data into the Employee table. The application's main form should display the Employee table in some kind of List control (ListBox/ListView/GridView/DataGrid).

The main form should also have a button that, when clicked, displays a second form. The second form should display and allow editing of the selected Employee record. Make sure that when the second form is closed, the main form refreshes the list so the most current data is displayed.

Group 2/10 Problem – Pay Sorter

Create a database named Personnel. The database should have a table named Employee, with columns for employee ID, name, position, and hourly pay rate. The employee ID should be the primary key. Insert at least five sample rows of data into the Employee table. The application's main form should display the Employee table in a some kind of List control (ListBox/ListView/GridView/DataGrid).

The form should also have the following controls:

- A button that, when clicked, sorts the data in ascending order by hourly pay rate
- A button that, when clicked, sorts the data in descending order by hourly pay rate

Group 3/11 Problem – Employee Search

Create a database named Personnel. The database should have a table named Employee, with columns for employee ID, name, position, and hourly pay rate. The employee ID should be the primary key. Insert at least five sample rows of data into the Employee table. The application's main form should display the Employee table in some kind of List control (ListBox/ListView/GridView/DataGrid).

The application should let the user specify a name in a text box and then search for that name in the Employee table. The application should display any rows that contain a full or partial match of the specified name.

Group 4/12 Problem – Highest and Lowest Pay Rates

Create a database named Personnel. The database should have a table named Employee, with columns for employee ID, name, position, and hourly pay rate. The employee ID should be the primary key. Insert at least five sample rows of data into the Employee table. The application's main form should display the Employee table in some kind of List control (ListBox/ListView/GridView/DataGrid).

The form should have the following controls:

- A button that, when clicked, displays a message indicating the highest (maximum) pay rate in the table.
- A button that, when clicked, displays a message indicating the lowest (minimum) pay rate in the table.

Group 5/7 Problem – Population Database 1

In the provided additional materials, you will find a csv file named city.csv. Use it to populate a table named City in a database named Population. The City table should have the following columns:

- City – nvarchar(50) Primary Key
- Population – float

The city column stores the name of a city and the population column stores the population of that city. The database has 20 rows already entered. Create an application that connects to the Population database and allows the user to perform the following:

- add new rows to the database, change existing rows, and delete rows
- Get the total population of all the cities
- Get the highest population

Group 6/8 Problem – Population Database 2

In the provided additional materials, you will find a csv file named city.csv. Use it to populate a table named City in a database named Population. The City table should have the following columns:

- City – nvarchar(50) Primary Key
- Population – float

The city column stores the name of a city and the population column stores the population of that city. The database has 20 rows already entered. Create an application that connects to the Population database and allows the user to perform the following:

- Sort the list of cities by population, in descending order
- Sort the list of cities by name
- Get the average population of all the cities
- Get the lowest population