

Assignment1 – Bonus

Time: 85 minutes (including submitting time)

Note: 0 will be given when students use ChatGPT, chat group like Zalo, Facebook, ...

Q1 (2 points).

You are asked to write WPF Application that has a Window is designed as shown in Figure 1.

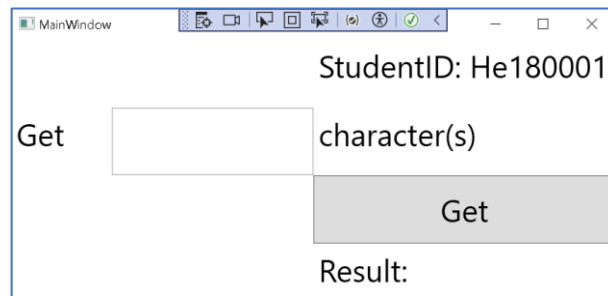


Figure 1. Required Window

+ (0.5 point) On initial load, the window will display **your own rollnumber**

+ (1.0 point) When the user enter an integer number into the TextBox and then click the Button (Get), the application displays **some first characters** of the above rollnumber. The number of characters is displayed depending on the input integer.

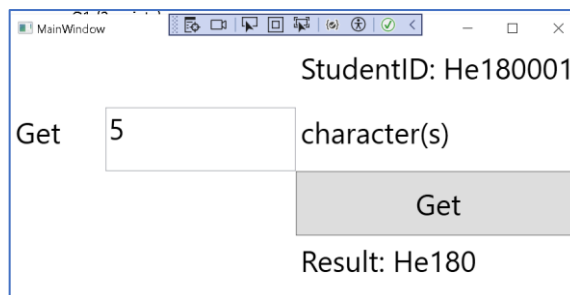


Figure 2. The Window after user enters '5' and click the Button (Get)

+ (0.5 point) Note that, if the user enters an **invalid** integer string, the application will show the **notification message**.

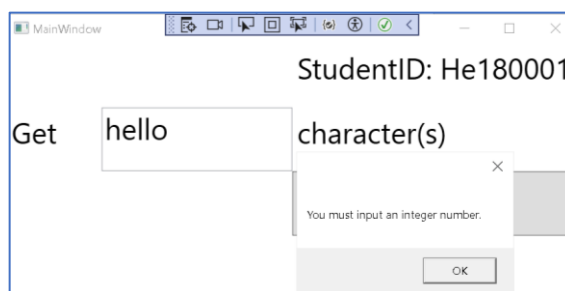


Figure 3. The system after user enters 'hello' and click the Button (Get)

Q2. (4 points)

You are asked to write a WPF Application that allows you to listing, adding, and editing project's information in the database.

Note:

- In this question you are required to access database using **Entity Framework Core**.
- 0 will be given to the work that not using database connection string in the file **appsettings.json**

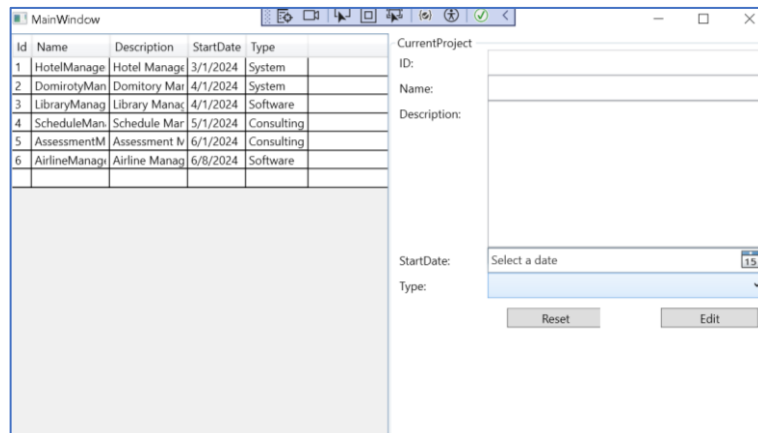


Figure 1. Required Window

- + The Window is designed as shown in Figure 1. The textbox of ID must be **disable**.
- + (1 point) in the combobox [Type] (in groupbox [CurrentProject])), load all **distinct type** values that appear in table Project in database.

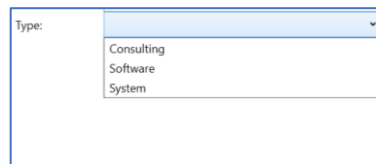


Figure 2. Items of combobox [Type]

- + (1 point) load list of **all projects** in database into the datagrid
- + (1.5 point) when user click on one cell in the datagrid, load data of corresponding project into controls in groupbox [CurrentProject]. User can use Edit button for updating information of this project in database. The data of datagrid must be reloaded.

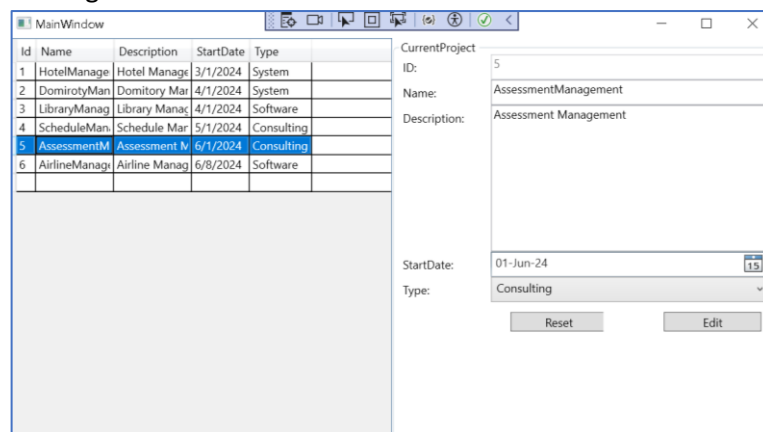


Figure 3. Loading of project's detail information

- + (0.5 point) when user click the button Reset, clear all project's detail information and reset this back to Figure 1.

Q3. (4 points)

You are asked to write a WPF Application that allows you to listing, adding, and editing employee's information in the database.

Note:

- In this question you are required to access database using **Entity Framework Core**.
- 0 will be given to the work that not using database connection string in the file **appsettings.json**

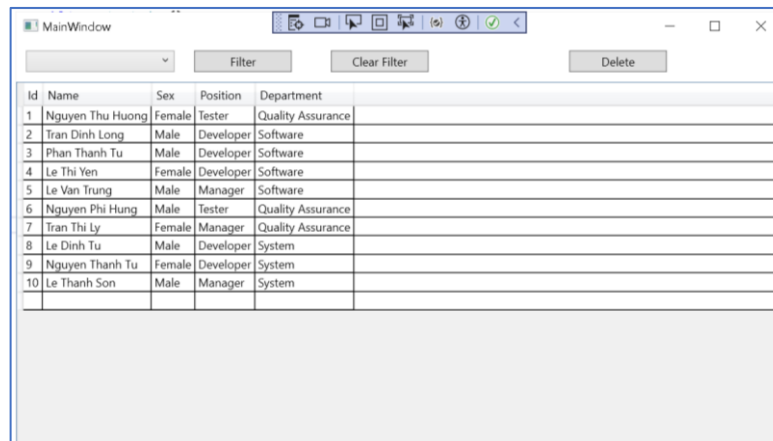


Figure 1. Required Window

- + The Window is designed as shown in Figure 1.
- + (2 point) in the window, load all **distinct departments** into the combobox and show all employees from the database.
- + (1 point) when user choose one department in the combobox and click on the Button [Filter], reload the list of employees to show only employees in the selected department.

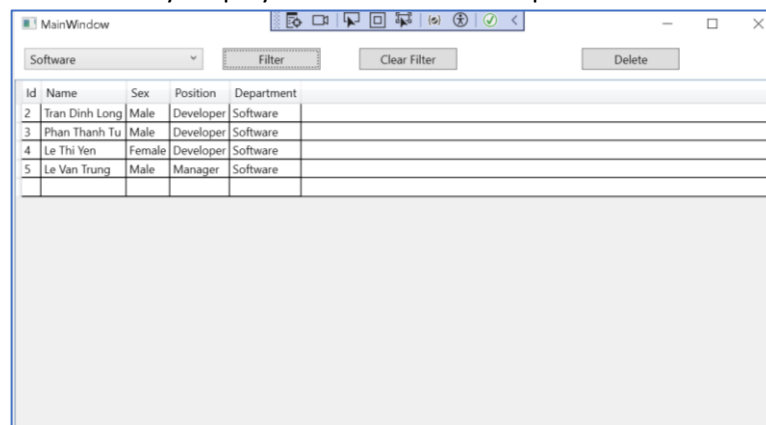


Figure 2. Reload employees in the selected department

- + (0.5 point) when user click on the Button [Clear Filter], reload the list of all employees back to Figure 1.
- + (0.5 point) User can use Delete button for deleting selected employee in database. The data of datagrid must be reloaded.