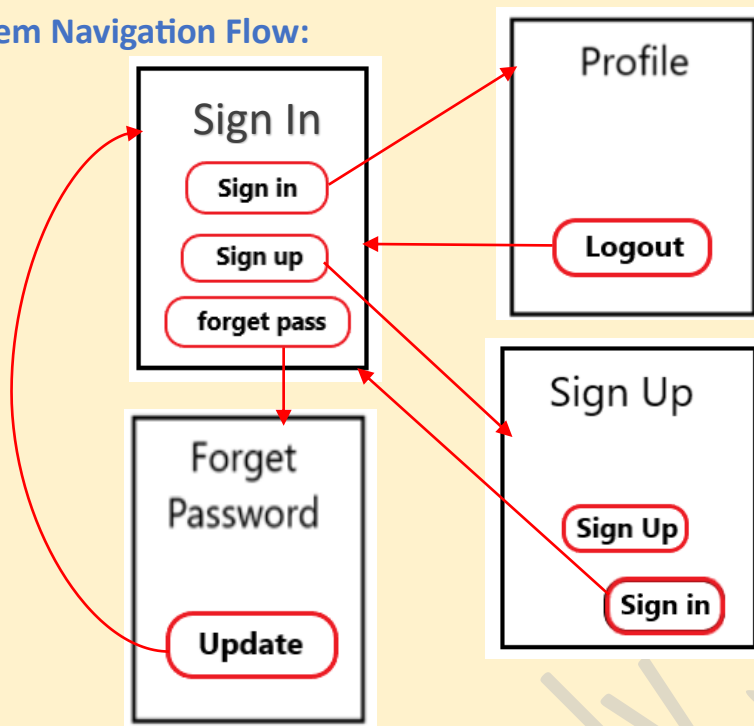# Desktop Assessment Case-study

System Name: Registeration & Login Desktop Application

Used Tool: WPF .NET

System Navigation Flow:

1. In the "Sign in" from, user has three options:
   a. Click on "Sign up": user has two options: first, if has no account: user can register from "Sign up" screen.
   b. Click on "Sign in": If the user already has an account he can login to the system.
   c. Click on "Forget Password": If the user forget the password he can recover it from "Sign in" screen by click on "forget password" button.
2. If the user update his password in "forget password" screen, the system will redirect to the "Sign in" screen and the user is asked to input the username and new password.
3. If the user logged in successfully the system will redirect to Profile screen that shows all of user data saved in data base.
4. In the "Profile" screen, user can exit the system by click-on "logout". Then, the system will redirect to the "Sign in" screen.

Database: Create only one table User that has following attributes.
   - User(user_id, Username, Password, Age, Gender, Phone number, City)
   - User_id is Auto Increment
   - Gender is binary "Male" or "Female"
   - Phone number size is 11.

UI Controls: Using following controls in XML is a <u>must</u>
- ➢ Label
- ➢ Textbox
- ➢ Combobox
- ➢ Button
- ➢ Radio button
- ➢ Grid
- ➢ Image

Style Controls: Using following style controls in XML is a <u>must</u>
- ➢ Font size
- ➢ Background
- ➢ Margin
- ➢ Border
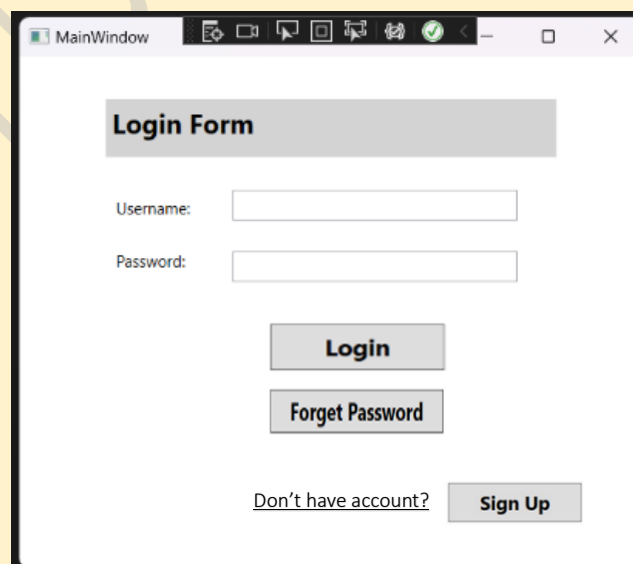- ➢ Foreground
- ➢ Font family

System Description:

1. **<u>Sign-Nn Screen:</u>**

   Purpose:

   The login subsystem verifies user credentials and grants access to authorized functionalities within the application.

   Key Components:

   - <u>Sign-in Interface:</u> A form or screen where users enter their credentials (username and password) to access their accounts.
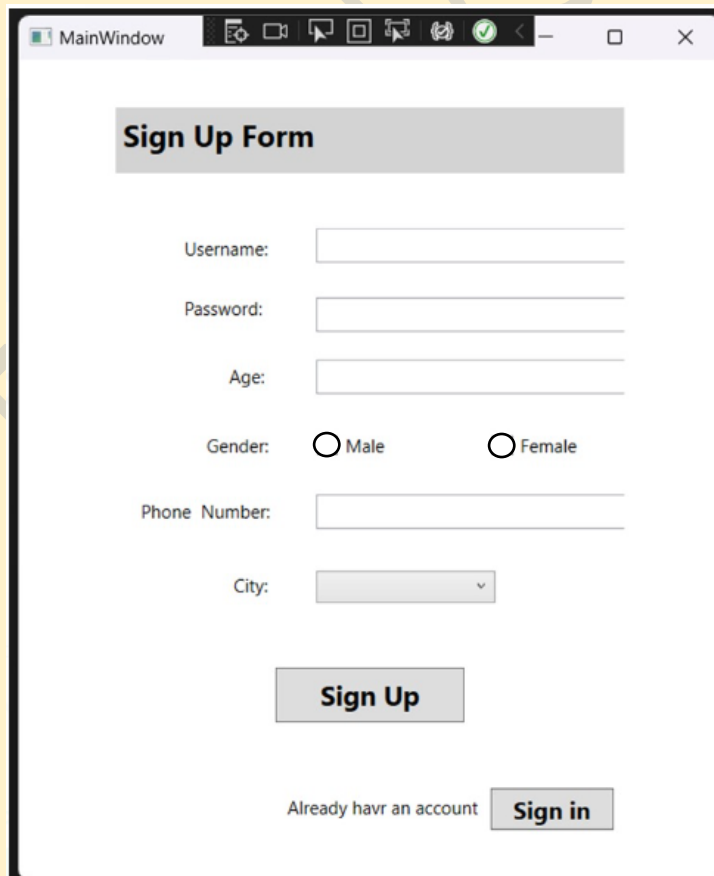
2. <u>Sign-Up Screen</u>

Purpose:

The registration subsystem enables individuals to create user accounts within the application, granting them access to its features and functionalities.

Key Components:

- <u>User Registration Form:</u> A WPF page that collects user details, such as username, password, age, gender, phone number(<u>Unique</u>), city.
- <u>Input Validation:</u> Validation mechanisms to ensure the correctness of user-provided information, preventing invalid data.
  - ✓ Password: <u>must</u> contain characters, numbers and special characters
  - ✓ Age: <u>must</u> be from 18 to 60
  - ✓ Phone number: <u>must</u> be 11 number
  - ✓ City: user can choose from <u>at least five cities.</u>
  - ✓ Gender: <u>must</u> be binary "Male" or "Female"
- <u>Database Integration:</u> Interaction with the database to store user account information using Entity Framework.
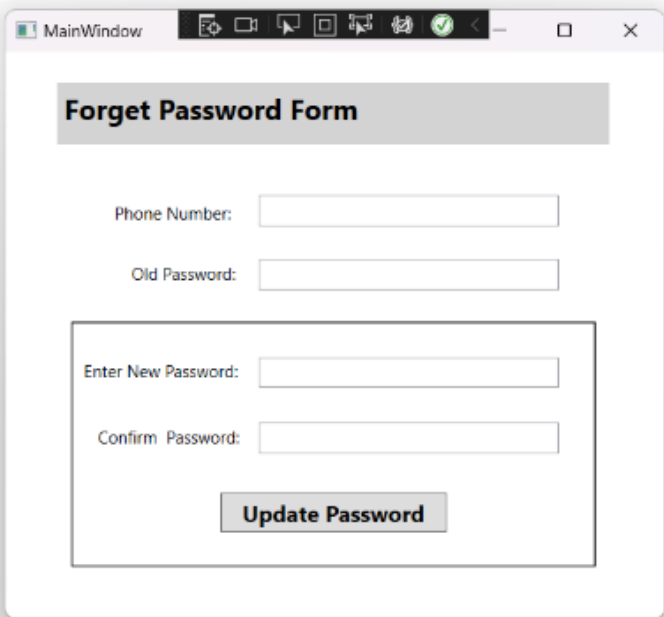
3. Forget Password Screen
Purpose:
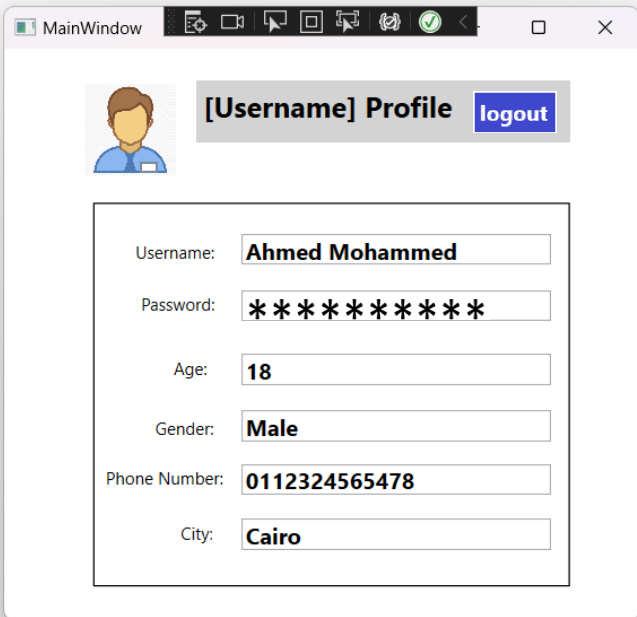A screen to update forgotten passwords through following steps:

- Password Recovery:
  1. Entering phone number(Unique)
  2. The system will show old password
  3. The system asks user to enter a new password and confirm it by entering a new password again.

- ✓ New password field and confirm new password field must be the same.

4. Profile Screen:

- Profile Interface: Interaction with the database to retrieve user information using Entity Framework and show in the profile screen.
- Showing User profile picture is a must.
- User can logout from the system by click on "logout".
- User information retrieved from database are:
  1. Username
  2. Password: must be masked
  3. Age
  4. Gender
  5. Phone number
  6. City

GOOD LUCK