

## OOP II Project Details

### Objectives

- To dive in C# forms and its components

### Exercise

The user needs a personal organizer application which can be used by multiple users. The application includes a phonebook, notes, personal information, reminders on the calendar and a salary calculator. Hold data for each module in a separate CSV, TXT or XLSX file but do not forget to link a phone record and its owner who is stored in the user file.

Tasks;

#### *User Management*

- First registered user will be the administrator of the system.
- Other users will be normal users.
- Admin could change user type. User types: Admin, user, part-time-user.
  - Create a user management window and give access to only admin users.

#### *Phone Book*

- A detailed phone book will be created. (name, surname, phone number, address, description, e-mail)
  - List records
  - Create a record
  - Update a record
  - Delete a record
- Store data in the "phonebook.csv" (It can also be in txt or xlsx format)
- Fields on the window need to accept only needed format such as number fields accepts only numbers. The phone number needs formatted like (555) 555 55 55.
- Verify that the text entered in the E-mail field is a valid e-mail. (Tip: RegEx(Regular Expression) may help you)

#### *Notes*

- A simple note list will be created.
- Notes module has only one field.
- Store data in the "notes.csv" (It can also be in txt or xlsx format)
- User may enter more than one note so the user needs below use cases.
  - List notes
  - Create a note

- Update a note
- Delete a note

### *Personal Information*

- User needs to view and edit his/her profile. The profile page will have user information (name, surname, phone number, address, e-mail, password, photo)
- User needs to change the password and other information from the profile screen.
- Store photo in CSV file as base64 format.
- CTRL – Z & CTRL – Y capability on user profile window. (Memento)
  - Each field changes need to manage via CTRL-Z to undo and CTRL-Y to redo.

### *Salary Calculator*

- According to BMO, a staff's minimum salary should be calculated via some parameters<sup>1,2</sup>.
  - Create a screen to calculate the user's minimum salary and hold this information as user information.
    - Read BMO rules carefully and hide fields if they are not needed otherwise show them.
  - User needs to enter/update these data.
  - On the profile screen, you need to show the calculated salary. The minimum salary will be calculated as %50 off for the part-time user.

### *Reminder*

- User need to manage (list, add, update, delete) reminders
  - There are two reminder types (meeting & task) (Abstract Factory)
- Each reminder has a date, time, summary and description fields.
- The reminder will show summary value on active windows header and shake active windows along two seconds. (Observer)

**! Your application needs to be error-free.**

**! Each bug, design error, code smell, magic number will be finalized with penalty points.**

### **BONUS (+10 point to final grade) (no partial bonus point)**

- An administrator will be able to send a new password to users' e-mail
  - Show a progress bar while e-mail sending.
- Show a warning message to ask "really want to exit" on the close button(X) clicked

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<sup>1</sup> <https://www.bmo.org.tr/en-az-ucret/>

<sup>2</sup> [https://www.bmo.org.tr/wp-content/uploads/2023/08/BMO\\_En\\_Az\\_Ucret\\_Tanimlari\\_R.01\\_2023-1.pdf](https://www.bmo.org.tr/wp-content/uploads/2023/08/BMO_En_Az_Ucret_Tanimlari_R.01_2023-1.pdf)

**Important Notices:**

1. Send your code and presentation to GitHub and UZEM. An announcement will be made regarding uploading the files to the system.

2. Follow the instructions for uploading code and naming files.

(StudentId\_NameSurname\_GroupNumber\_LabA/B)

Example: (152120241000\_MehmetDemir\_Group3\_LabA)

3. Project work will be done in groups of 4-5 people. You will be asked for group information.

4. A report on the project is expected to be prepared. The contribution of each group member to the project should be stated in the report.

5. Project presentations will be made in the last two weeks of the semester. All group members must contribute to the project and make a presentation.