JAVA PROGRAMMING COURSE (SWE2023)
FALL SEMESTER 2023

INSTRUCTOR: Prof. TAMER ABUHMED
COLLEGE OF SOFTWARE
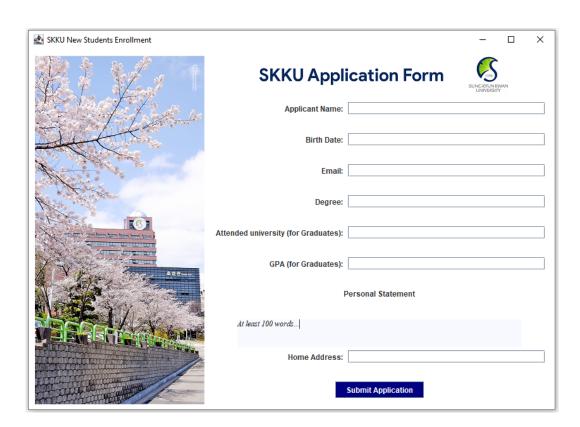
Assignment 3

This assignment consists of 1 task. Guidelines for submission format are given at the end of the assignment file.
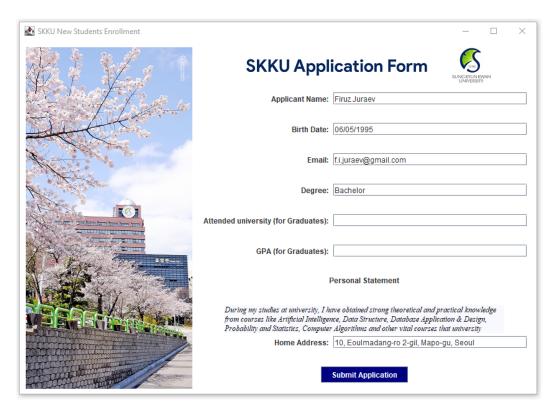
Task Description

At SKKU, we need your help to build an application form program for getting new students. There are already existing programs for this one but they are not reliable. There are many people who randomly fill out the application form with bad inputs. Therefore, we need your help to build a new application form program that is robust against improper inputs.

Here is the simple default UI for the new application form program (we build it based on old programs, it would be great if you redesign it by keeping the components):

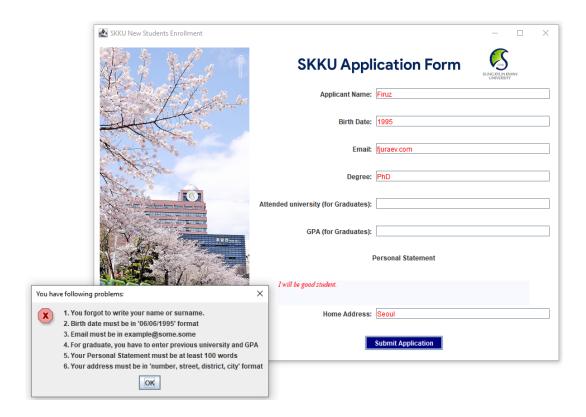1. Perfectly filled application form for undergraduates:

* For bachelor applicants, the attended university and GPA should be empty.

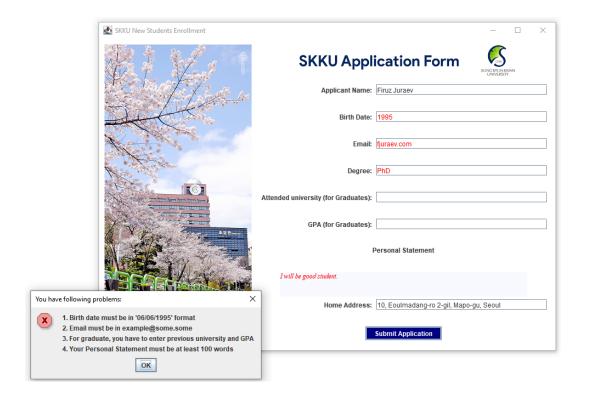2. Perfectly filled application form for graduates:

For graduate applicants, the attended university and GPA should not be empty.
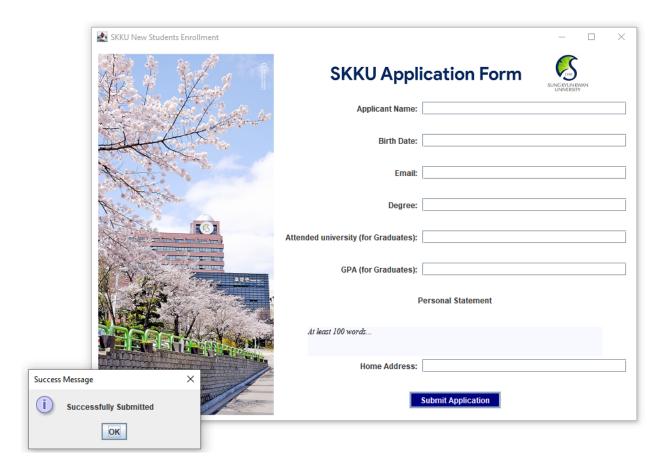
3. Wrongly filled forms:

If the user inserts wrong inputs and presses submit button, show **one** popup message with all problems list:

After fixing some of the problems, the user can submit again. If there are still remaining problems, after pressing submit button show the popup message again with the list of problems:

After fixing all problems and the user presses the submit button, the application form should be cleared from inserted inputs and your program must show a success popup:

Hints for checking errors:
- Case 0: The user might enter only first name or last name, in that case, show this message on the dialog box: "You forgot to write your name or surname".
- Case 1: There might be empty fields, for example, a message in the dialog box: "You forgot to fill the name text field, Please fill it".
- Case 2: Improper birth date format, for example, message in the dialog box: "Birthdate must be in '06/06/1995' format".
- Case 3. Improper email. If the email does not contain an email format show the following message in the dialog box: "Email must be in example@some.some". Hint: you can check proper email input by checking the existence of '@' and dot in the email.
- Case 4: Improper phone number, if the phone number contains any character or symbol (e.g. @,-,$,%, etc), show the user error in the dialog box: "Proper format for a phone number is '10 2158-0222' ". (phone number is not added in the example, but you must add it to your program).
- Case 5, if a user is a graduate applicant and he does not insert previous attended university and GPA, show this message on the dialog box: "For graduate, you have to enter previous university and GPA".

- Case 6: improper GPA, GPA should be between 0 and 4.5 and if users enter the wrong GPA, show this message on the dialog box: "GPA must be between 0 and 4.5".
- Case 7: Improper input for Personal Statement. If the user enters less than 100 words, show the message in the dialog box: "Your Personal Statement must be at least 100 words".

There might be other cases as well. Please be creative and try to add more fields and cover more error cases.

Requirements:
1. Beautiful GUI (try to make it more beautiful than the default UI)
2. Add at least 2 extra questions (phone number, experience, etc)
3. Strong exception handling (handle all possible exceptions)
4. Good coding style (like naming variables with meaningful names, dividing code into one-task functions)
5. Comments (meaningful comments) - "// this is variable" is not good comment

Note: Used icons and images are provided.

Submission format: Submit **your project folder as one zip folder**

Name of zip file: {student ID}_{Student name}_assignment3.zip

Example: 2020712837_Frank_Thomas_assignment3.zip

Important: Plagiarism is strictly prohibited. If there is any plagiarism found in the code, you will be given an "F" for the assignment evaluation.

If you have any questions about assignment 3, you can ask in the discussion section of the week or contact the TAs directly.

Good luck!