CS 5007 Individual Project Assignment 4 (100 Points)

Due: 11:59 p.m. on 11/12/2021

Project Objective: The goal of this project is to demonstrate your proficiency with the tkinter graphics library by constructing a GUI for a simple form consisting of several different widgets.

Project Deliverables:

1. Submit your **.py** file to Canvas.
2. Provide the clear **comment documentations** to your code.

Note:

(1) This project is to be done by each student individually. No help besides the textbook, materials, and the instructor should be taken. Copying any answers or part of answers from other sources (including your classmates) will earn you a grade of zero.
(2) All programming conventions mentioned in class should be followed.
(3) You should test your program before submitting.
(4) Your program must be developed and implemented in the PyCharm IDE, or 10% of the graded score is deducted.
(5) Assignments are accepted in their assigned Canvas drop box without penalty if they are received by 11:59PM EST on the due date, or 10% of the graded score is deducted for the late submission per day. Work submitted after one week of its original due date will not be accepted.

Task:

You will create a GUI that looks and functions like mine. An image is shown below and a video of how the components resize has been provided. This GUI is a mix between a standard registration form and a survey. The goal is to combine all graphic examples (widgets, frames, resizing, and event handling) into a single file. **This can be used as a reference in the future when creating small applications.**

Event Handling:

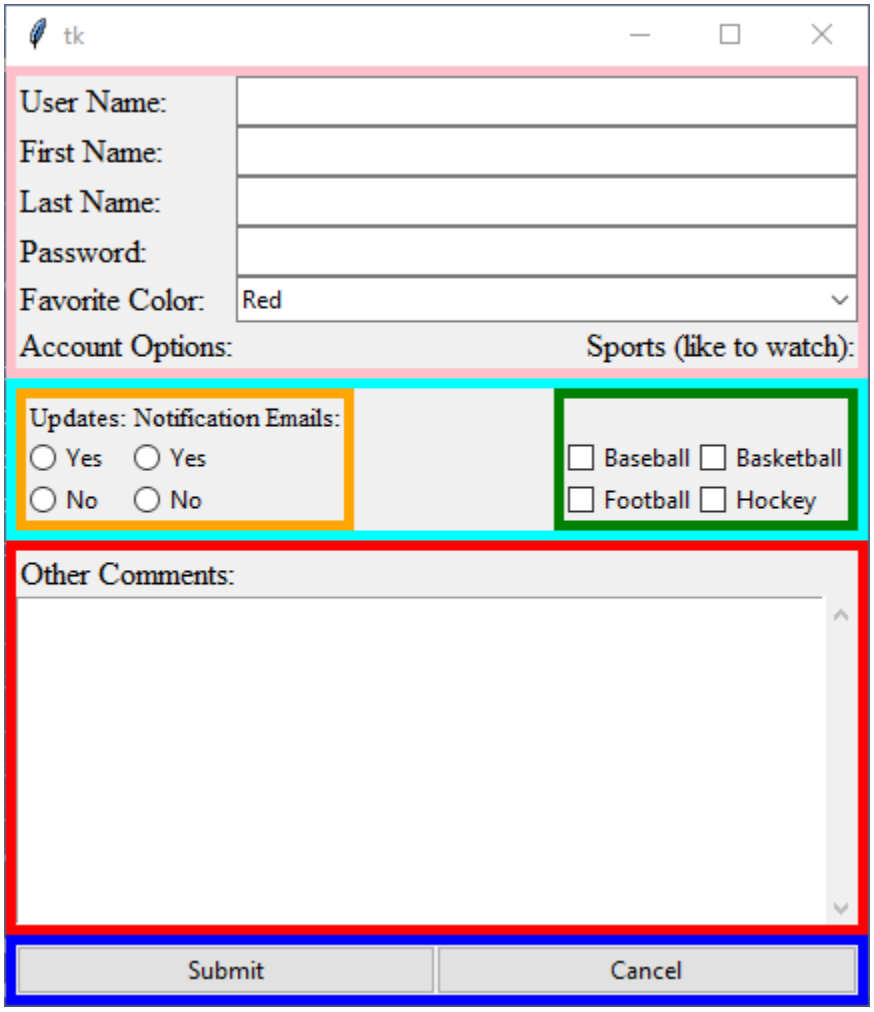
- Entry and Text fields: Print the text in the Pycharm output box after pressing the “Enter” key
- Password field: Print the password in the Pycharm output box after pressing the “Enter” key
- Combobox: Prints out the choice in the Pycharm output box when a choice has been selected
- Radio buttons: Prints out what the choice is in the Pycharm output box and if it is yes/no, when a radio button has been selected
- Check buttons: Prints out what the choice is in the Pycharm output box and if it has just been selected or deselected, when the check button has been either selected or deselected
- Submit / Cancel buttons: Prints out which button has been clicked in the Pycharm output box when the left mouse button is released

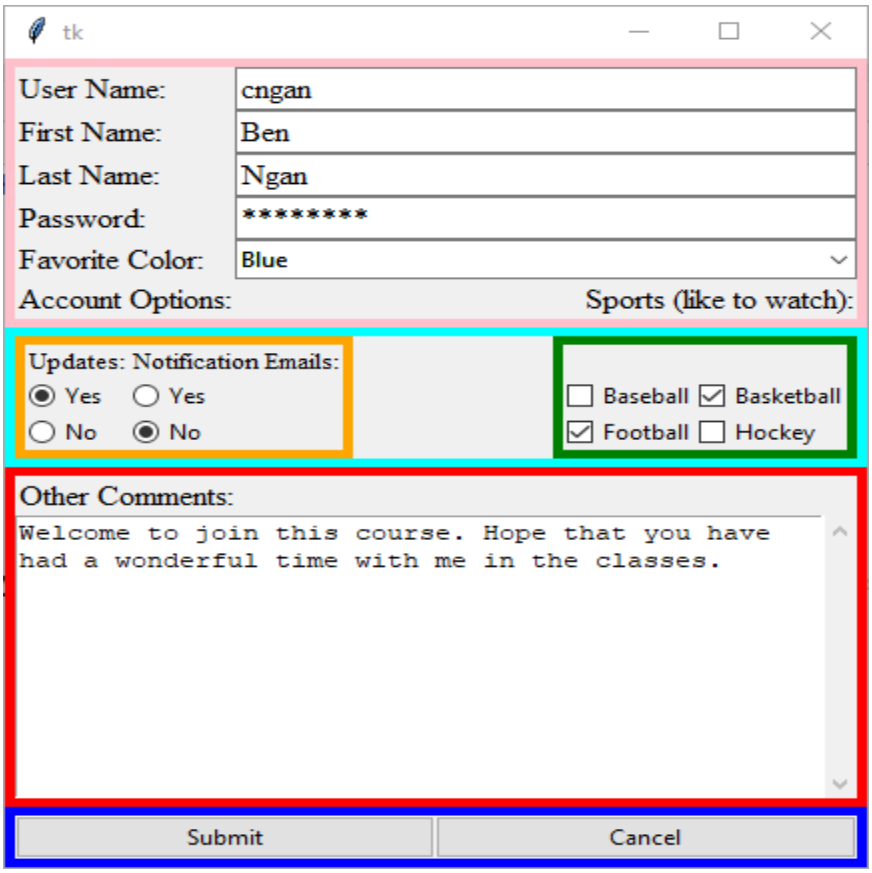
Notes

- **There may be differences between operating systems and how the UI looks, this is okay.**
- The color choices for the combobox are listed below.

[**"Red"**, **"Orange"**, **"Yellow"**, **"Green"**, **"Blue"**, **"Violet"**, **"Pink"**, **"White"**, **"Black"**]

- The combobox should display starting at the first choice.
- All combobox choices should appear in the list without having to scroll
- There will be several frames. To get the frames to resize correctly you will have to use the "sticky" option as well as the rowconfigure function and columnconfigure function.
- Each frame has a border. Although it looks funny, it is meant to help you with setting up the frames and visualizing where the frames are. The border colors can be your choice.
- The fonts for the labels are Times New Roman 12 point for the main labels and 10-point font for the "Updates" and "Notification Emails".
- All radio buttons are initialized to off.
- All check boxes are initialized to off.
- The radio buttons under "Updates" are mutually exclusive
- The radio buttons under "Notification Emails" are mutually exclusive
- The Text widget is vertically scrollable
- The Text widget has a height of 10 and a width of 50
- The Text widget has word wrap enabled





Text entered = cngan
Text entered = Ben
Text entered = Ngan
Text entered = password
Selected = Blue
Receive updates = Yes
Receive emails = No
Football is selected
Basketball is selected
Text entered = Welcome to join this course. Hope that you have had a wonderful time with me in the classes.

Submit clicked
Cancel clicked

Grading Criteria:

Checkpoint:	**Possible Points**
Proper Naming Conventions	5
Program Documentation	5
Individual Widget Components	20
Component Functionality	20
GUI and Component Resizing	15
Event Handling	15
GUI Positioned at the Center of any Screen	10
Correct Above Sample Program Outputs	10
Total	100