Computer Programming Section G, Spring 2018 Assignment 5

Due Date: Monday May 7, 2018

Text UI Library

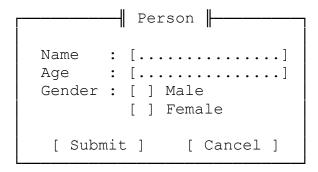
Implement, using Object-oriented techniques involving inheritance and polymorphism, a Text UI library for drawing character based windows and components, satisfying the following characteristics:

- A Window has width, height, title and multiple components
- A Label is a Component that represents some text
- A **Text Field** is a component in which user can type text
- A **Button** is a component that represents an action for the user
- A Radio Button Group is a component that has multiple options but only one can be selected
- A New Line is a component that starts a new line on the window

In order to draw the window, Box characters (see Appendix) may be used, whereas the representation of each of the components is depicted in the following table.

Component	Representation
Label	Label
Text Field	[]
Button	[Button]
Radio Button Group	[] Option 1 [x] Option 2 [] Option 3

An example window is illustrated as follows:



Appendix: Box Drawing Characters

Character	Extended ASCII Code (Decimal)	Extended ASCII Code (Hex)	Unicode UTF-8 (Hex)
Γ	218	DA	250C
_	196	C4	2500
٦	191	BF	2510
	179	В3	2502
 	199	C7	255F
-	182	В6	2562
L	192	C0	2514
J	218	DA	2518