Assignment 2

CSCI 5737.01 – Mobile Applications Development, Fall 2017

Due Date: 10-24-17, 11:55pm

Submission Guidelines
Prepare a folder that contains the Xcode project and upload to Blackboard.

Penalty for Late Submission
Late submissions not accepted.

Description of Assignment
Design and develop an iPhone app that allows its users to perform following conversions:

Type	Conversions	Formula
Length	Kilometers to Miles	1 Km = 0.621371 miles
	Miles to Kilometers	1 Mile = 1.60934 Kilometers
	Yard to Feet	1 Yard = 3 Feet
	Feet to Yard	1 Feet = 0.33333 Yards
	Inches to Centimeters	1 Inch = 2.54 Centimeters
	Centimeters to Inches	1 Centimeter = 0.3937 Inches
Liquid	Liters to Gallons	1 Liter = 0.264172 Gallons
	Gallons to Liters	1 Gallon = 3.78541 Liters
	Pints to Gallons	1 Pint = 0.125 Gallons
	Gallons to Pints	1 Gallon = 9.60762 Pints
	Quarts to Gallons	1 Quart = 0.20817 Gallons
	Gallons to Quarts	1 Gallon = 4.80381 Quarts
Temperature	Fahrenheit to Celsius	1 Fahrenheit = (Celsius x 1.8) + 32
	Celsius to Fahrenheit	1 Celsius = (Fahrenheit - 32)*0.5555
Mass	Kilograms to Pounds	1 Kg = 2.20462 Pounds
	Pounds to Kilograms	1 Pound = 0.453592 Kgs
	Ounce to Grams	1 Ounce = 28.3495 Grams
	Grams to Ounce	1 Gram = 0.035274 Ounces

Following are the specific requirements for your user interface:

- Develop a tabbar application where each conversion type (for example *Length*, *Liquid* etc) is on its own tab
- When a tab is selected, your app must show all available conversion options for that type (for example, in case of *Length* tab, conversion options are *Kilometers to Miles*, *Miles to Kilometers* etc) in a table view, and must use navigation interface to transition from table view to actual conversion view.
- The conversion view should provide a text field where the user can type the value of required conversion. As the user is typing the value in this text field, you must automatically calculate the converted value using the formulae given above and show it in a label.
- Add a new section to the conversion options table view called '*Recent'*, which shows five recent conversions (for example *2.5 Kilometers = 1.55 Miles*, *1 Liter = 0.26 Gallons*, etc). Selecting any rows in this section must have no affect.
- Make sure you choose appropriate UI elements from the iOS SDK.

Hints:

- You can use ***NSUserDefaults*** class to remember the recent conversions and show them in menu table view's '*Recent'* section.
    - For example, you can save an integer value using ***NSUserDefaults*** by:

```
int setMarks = 75;
NSUserDefaults* prefs = [NSUserDefaults standardUserDefaults];
[prefs setInteger:setMarks forKey:@"myMarks"];
```

    - For example, you can retrieve an already saved integer value using ***NSUserDefaults*** by:

```
int getMarks;
NSUserDefaults* prefs = [NSUserDefaults standardUserDefaults];
getMarks = [prefs integerForKey:@"myMarks"];
```

- In order to read the value from textfield dynamically as it is being edited, you can add ***IBAction*** to the textfield and select ***Type*** to be ***EditingChanged***.