

ITIS/ITCS 5180 Mobile Application Development
Homework 01

Basic Instructions:

1. In every file submitted you **MUST** place the following comments:
 - a. Assignment #.
 - b. File Name.
 - c. Full name
2. Each team is required to submit the assignment on Canvas.
3. Please download the support files provided (if there is any) with this assignment and use them when implementing your project.
4. Submission details:
 - a. Compress the contents of your project folder. The file name is very important and should follow the following format: **Group#_HW01.zip**
 - b. Only one group member is required to submit on behalf of the whole group.
 - c. You should submit the assignment through Canvas: Submit the zip file.
 - d. You will have two zip files in this assignment. So, zip them again into one zip to submit.
5. The required Android Virtual Device (AVD) should have **minimum SDK version set to 23 and target SDK at 28 or 29.**
6. **Failure to follow the above instructions will result in point deductions.**

Homework 01 (100 points)

In this assignment, you will be developing a BMI calculator application. The formula for calculating Body Mass Index (BMI) is:

$$\text{BMI} = (\text{Weight in Pounds} / (\text{Height in inches} \times \text{Height in inches})) \times 703$$

1 foot = 12 inches

BMI Calculator (100 points):

The interface should be created to match the user interface presented in Figure 1. Try to design it as similar as possible, however, it is recommended to give more time to

The wireframe shows a smartphone screen with a BMI calculator app. The app's title is "BMI Calculator". Below the title is a section header "Body Mass Index (BMI)". There are three input fields: "Weight" with the value "176" and the unit "lb", "Height" with the value "5" and the unit "feet", and another "Height" field with the value "7" and the unit "inches". A "Calculate BMI" button is located below the input fields. At the bottom of the screen, the app displays "Your BMI: 27.6" and "You are Overweight".

Figure 1: BMI Calculator Wireframe

implement the logics first. Please follow the following instructions:

1. The String values used for the button labels should be read from the strings.xml file and should not be hardwired in the layout file.
2. This is the first application you will develop. Here you will develop the BMI calculator using the aforementioned formula.
3. First, use a TextView to display the String, "Body Mass Index (BMI)."
4. Next, use another TextView to display the String "Weight".
5. Then, use an EditText to create an input form for taking Weight input.

6. Subsequently, display Height TextView, two EditTexts to take Height inputs.
7. Display a button having the String, "Calculate BMI".
8. Finally, Display your results using two TextViews.
 - a. First, display your BMI.
 - b. Second, you need to display the current BMI status. BMI Categories are:
 - Underweight = <18.5
 - Normal weight = $18.5\text{--}24.9$
 - Overweight = $25\text{--}29.9$
 - Obesity = BMI of 30 or greater
9. When you click on the button, you should calculate and display the result accordingly. Display a Toast having the message, "BMI Calculated".

NOTE: All the inputs must be non negative Real numbers. You need to check for any anomaly in case for inputs. If any invalid input is given, your applications should Toast a message, "Invalid Inputs." Use setError() to notify.

Good Luck!