

**Due Date**

Monday, April 27, by 11:59pm

**Submission**

1. You must designate a submitter (one of the team members) to submit the project to Canvas. The comment block on top of each Java file must include the names of all team members.
2. Submit your Android project folder (zipped) [25 points]

**Program Description**

You will be using Android Studio to develop a mobile app that calculates the BMI (Body Mass Index) and gives a proper advice based on the calculated BMI. The advice as shown below is a piece of information from the Department of Health and Human Services/National Institutes of Health.

BMI Values	Advice
Less than 18.5	Underweight
Between 18.5 and 24.9	Normal
Between 25 and 29.9	Overweight
30 or greater	Obese

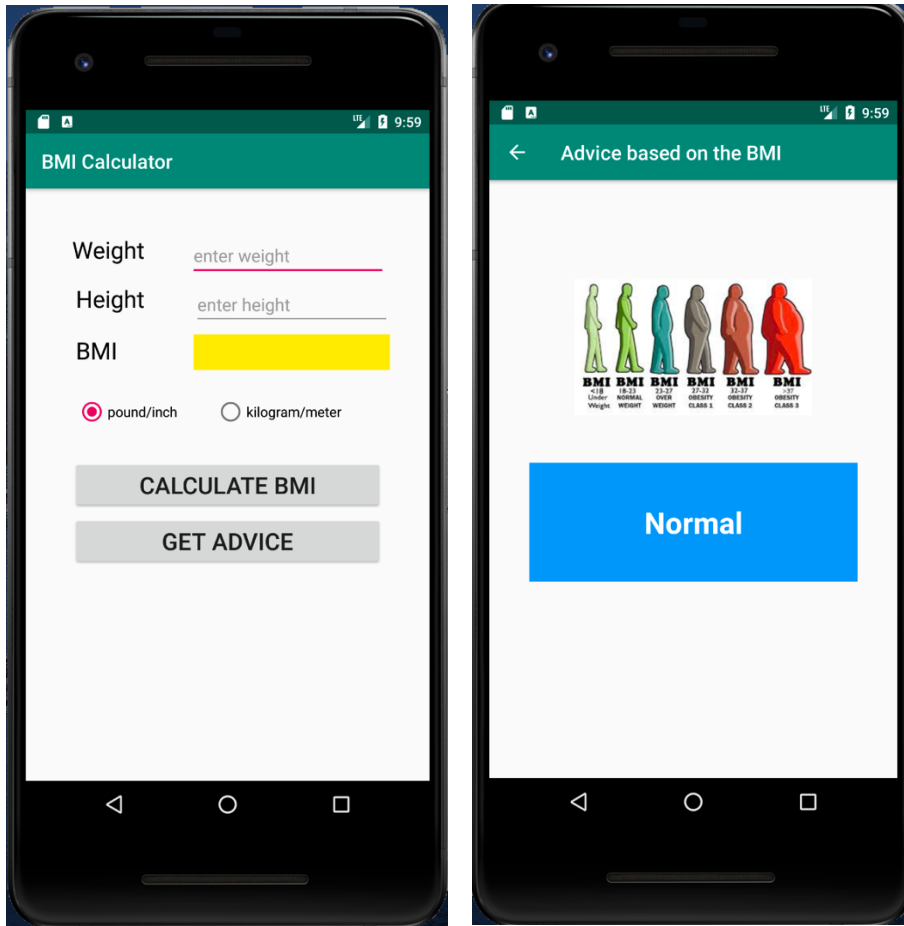
The app shall allow the user to enter their weight and height, either in pounds and inches, or in kilograms and meter. The BMI should be computed with the following formulas:

$$\frac{\text{weightInPounds} \times 703}{\text{heightInInches} \times \text{heightInInches}} \quad \text{OR} \quad \frac{\text{weightInKilogram}}{\text{heightInMeters} \times \text{heightInMeters}}$$

**Program Requirement**

1. This is a **group assignment**. You MUST work in pair in order to get the credit for this program. You MUST submit a runnable program to pass this course.
2. You MUST follow the software development ground rules.
3. Your app must meet the following requirements. **-2 points** for each requirement not met.
  - You must have a radio button group with two options: English and Metric units. If English unit is chosen, the user enters the weight in pounds and height in inches, if Metric unit is chosen, the user enters the weight in kilograms and height in meters.
  - For any **EditText** view, you must provide the “hint” for the user to enter the data; for example, if the English unit is chosen, the hint will be “Enter weight in pounds”, “Enter height in inches”.
  - The app shall restrict the input data, weight and height, to be numeric.
  - The BMI shall be displayed as a number with 2 decimal places; for example, 23.56
  - The app MUST provide an option to show the advice based on the BMI.
  - The advice based on the calculated BMI shall be displayed on another screen; i.e., you MUST create a second activity to show the advice.
  - The second activity (screen) shall display the advice together with an image; i.e., in total, you need 4 images in your app to be displayed with the 4 different advices, respectively.
  - You must use the **Toast class** for the error messages or short messages; for example, button clicked before entering the data.
  - Each activity must show an appropriate title on the screen.

4. Sample GUI designs are shown below. These are minimal and simple designs. I encourage you to design your own GUI for the main activity and the second activity.



5. **Program Testing.** Your program must meet all the requirements and always run in a sane state. Your program must not crash under any circumstances. You are responsible to thoroughly test your Android app. You will **lose 2 points** for any exception not caught or any malfunction on the GUI, with a maximum of **10 points off**.