BAIT2073 Mobile Application Development
Academic Year 2023/2024
Practical Test (Set A)

Instruction:

1. Create a new Android project using the **Empty Views Activity** template.
2. Name the **project**, **package** and **folder** following the pattern below:

   Set[SetNumber][FullName]

	Example
Project Name	**SetALiawChunVoon**
Package Name	com.example.**setaliawchunvoon**
Folder Name	**SetALiawChunVoon**

3. Delete unused testing folders/packages.
4. Delete testing related lines in module-level gradle file.
5. Enable **view-binding**. You must use view-binding in your codes.
6. Use meaningful variable and component names.
7. Follow the programming conventions as in the practical.

Submission:

1. Generate, copy and paste the **APK** file into the project root folder.
   [Build] > [Build Bundle(s) / APK(s)] > [Build APK(s)]

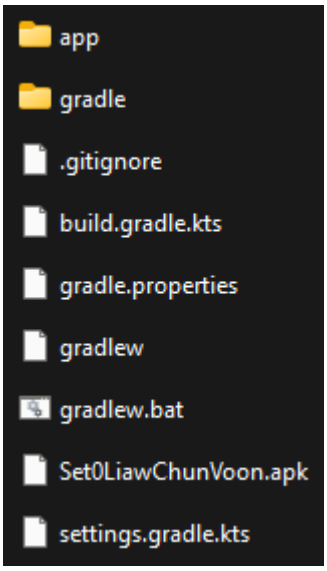
2. Name the **APK** file following the pattern below:

   Set[SetNumber][FullName].apk

	Example
APK File	**SetALiawChunVoon**.apk

3. Clean the project to reduce file size.
4. Close the project.
5. Delete the following machine-dependent folders/files:
   - **.gradle** folder
   - **.idea** folder
   - **local.properties** file

6. **Compress** the project folder (**zip** format), **upload** to Google Classroom and **turn-in** your work.



Sample project folder (final)

Question:

Create a mobile app to calculate BMI, status and eligibility for blood donation based on inputs.

Main Activity

Sample layout (your layout can be different)

Cursor focus should be default to the **first** input when the mobile app is started.

(A) Reset Button

Reset all input and output components. Place **cursor focus** on the **first** input.

(B) Submit Button

Obtain 6 inputs from the user, which include:

Input	Data Type	Remark	Input Validation
Weight	Double	Max length = 6. Number (decimal). Default 0.0.	Cannot < 0.01.
Height	Double	Max length = 4. Number (decimal). Default 0.0.	Cannot < 0.01.
Condition	String	Radion button group with 2 options: • Healthy (default) • Sick	-
First Time Donor	Boolean	-	-
Age	Int	Max length = 2. Number. Default 0.	Cannot < 1.

Region	String	Spinner with 3 entries: • West Malaysia (default) • Sarawak • Sabah	-

Perform **simple input validation** on the following 3 inputs. Use **Toast** to show simple error message:

- **Weight**
- **Height**
- **Age**

Then, calculate the **BMI** (Double), **Status** (String) and **Eligible** (Boolean):

BMI = Weight / (Height * Height)

BMI	**Status**
< 18.5	Underweight
< 25.0	Normal
< 30.0	Overweight
Above	Obese

Status	Condition	First Time Donor	Age	**Eligible**
Normal	Healthy	True	18 – 60	True
		False	18 – 65	
Otherwise				False

Finally, display the outputs based on the following formats:

Value	Format
Weight	2 decimal places, postfix with “kg”.
Height	2 decimal places, postfix with “m”.
Condition	-
First Time Donor	“Yes” or “No”.
Age	-
Region	-
BMI	1 decimal place.
Status	-
Eligible	“Yes” or “No”.

(C) Phone and SMS Button

By using **implicit intent**, dial phone and send SMS to **+60123456789**.