BIRZEIT UNIVERSITY

Advanced Computer Systems Engineering Laboratory – ENCS5150

TODO 1: ASCII Dancer

Question: Using Android Studio software, design ASCII Dancer android application that is shown in Figure 1. [2 Points]
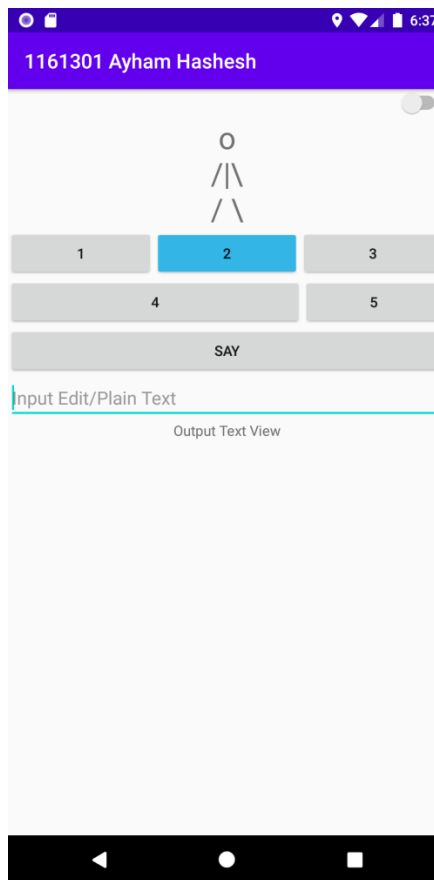

Figure 1: ASCII Dancer Android application.

The application needs to behave as follows:

- The **Switch widget** represents the state of the application. In case the button is OFF as shown in Figure 1, the rest of the application buttons should not make any change neither to the Input/output Text Views or the man position. When the switch is ON the buttons should be functioning. [1 Point]

- A man starts facing forward in the following position:

```
 o
/|\
/ \
```

You will be given a series of commands which are shown in Table 1 that indicate the moves and actions the man makes [6 Points].

Table 1: Commands with man response.

1. Left hand to head	2. Left hand to hip	3. Left hand to start
o) /| / \	o /|> / \	o /|\ / \
4. Left leg in	5. Left leg out	6. Say: Display on the 'Output Text view' what is in the 'Input Edit/Plain Text'.
o /|\ / >	o /|\ / \	

Instructions example with man position:

Left hand to hip → left leg in → Say "I love Android Lab" → Left leg in → Left leg out

```
 o                o               o                  o            o
/|>      →       /|>     →       /|>        →       /|>    →     /|>
/ \              / >             / >                / >          / \
```

- **Change the color of one of the Buttons** (1, 2, 3, 4, 5 or 6 'Say Button') as follows: (Least significant digit of your University ID + 1) % 6, the result represents the button that you need to change its background color, as an example: UID=1161301 then (1 + 1) % 6 = 2. You need to change the background color of button 2 to any color you want. [1 Point] For the rest of the buttons, feel free to use any theme you want, the default theme for my application has gray as a primary color. It's not mandatory to use the same theme.

Notes:

- The name of the application must be in the following convention: UID FirstName FamilyName.
- I will use a Pixel 3a XL device with API Level 26 (Graphic=Software). So, make sure to match these requirements to avoid unexpected issues once I test your solution.
- ToDo is individual and Cheat is not allowed (Lead to a 0 mark!) We'll be very strict in that.

What to submit?

- Project.zip file (Size in KB)
    - From Android Studio: File → Export to zip file
- APK file
    - From Android Studio: Build → Build Bundle(s) / APK(s) → Build APK(s)

Where to submit?

- Send the APK file and the ZIP file to Ritaj ID **7952**

Deadline:

- 10-11-2022 11:59 PM