



BIRZEIT UNIVERSITY

Advanced Computer Systems Engineering Laboratory – ENCS5150

TODO 1: Simple Quiz Game

Objective:

Your task is to develop a simple quiz game using Android Studio. The game should consist of 5 multiple choice questions, each question has 4 possible answers, and the user has 10 seconds to answer each question.

User Interface:

1. Main Activity:

- The game's title "Simple Quiz Game" horizontally centered and in **bold font**.
- Two TextFields, one to show current score (**green colored**) and one to show how many seconds are left (**red colored**).
- TextField that displays the question, it should begin with the question number.
- 4 buttons, each containing a choice to answer the question.
- TextView that contains your Name and ID.

2. Result Activity:

- Feedback Textfield (that displays the text "You Won!" or "You Lost!").
- Score TextField (displays the result as follows: "Result/5").
- Reset button (**red background color and white text color**).

Game Logic:

1. The game begins directly after the user opens the application.
2. The countdown textfield should be "10" initially and decrease by one every second.
3. The score textfield should be "0" initially and increase by one after every correct answer.
4. If the 10 seconds has passed and the user didn't choose an answer, the game will automatically go to the next question and reset the counter to 10.
5. If the user chose an answer, then the game directly proceeds to the next question and the counter resets to 10.
6. After the 5 questions, the application switches to "Result Activity".
7. If the user's score is 4 or 5 then the feedback TextField should display "You Won!" else it should display "You Lost!".
8. The score TextField should show the user's score out of 5 "Result/5", so if user scored 2 it should be "2/5".
9. If the reset button is clicked then it should restart the game and switch to "Main Activity", also it resets the score to 0 and the countdown timer to 10.

Notes:

- You can create any design as long as it is clear, easy to understand, and follows any mentioned specifics in “**User Interface**” section above (such as specific color or hint requirements).
- You should have exactly two activities, no more or less.
- The name of the application must be “ID_FirstName_LastName”.
- Use Pixel 3a XL device with API Level 26 (Graphic=Software).
- ToDo is individual work and cheating will result in **0 mark**.
- Marks distribution is 8 for functionality and error-handling, and 2 for design.
- No late submissions whatsoever, if the deadline is about to arrive, submit your work as it is.
- What to submit:
 1. **Project.zip** file (Size in KB)
From Android Studio: File → Export → Export to Zip File
 2. **app-debug.apk** file
From Android Studio: Build → Build Bundle(s) / APK(s) → Build APK(s)
You will find the APK file under “app\build\outputs\apk\debug\app-debug.apk”

Send both the APK file and the ZIP file as a reply to my message.

- Test your APK before submission, either by installing it to the emulator by dragging and dropping app-debug.apk file into the emulated phone, or by installing it to your personal Android phone. At least one mark will be deducted for submitting faulty APK file.
- Deadline: **14/03/2024 Midnight (Send it before 15/03/2024)**