



Advanced Computer Systems Engineering Laboratory – ENCS5150

TODO 2: SQLite Database

Question: Given the following schemas:

Boat(boatId: Integer, boatName: String, color: String)

Sailor(sailorId: Integer, boatId: Integer, name: String, nationality: String)

Using Android Studio software, design android application that meet the following requirements:

1. Add Boat Activity:
 - **Boat ID:** Unique ID which is auto generated by your application.
 - **Boat Name:** User Input.
 - **Color:** Spinner with the following options ["Red", "Blue", "White", "Black"]
2. Add Sailor Activity:
 - **Sailor ID:** Unique ID which is auto generated by your application.
 - **Boat ID:** User input.
 - **Name:** User Input.
 - **Nationality:** Spinner with the following options ["Palestinian", "Jordanian", "Qatari"]
3. Main Activity: It contains 5 buttons, two of those buttons are used to go to 'Add Boat Activity' and 'Add Sailor Activity'. While the others are used to perform the following queries and display the result on the 'Main Activity':
 - a. **Buttons 3:** List the number of sailors for each nationality.
 - b. **Buttons 4:** List the name of the boats in red color.
 - c. **Buttons 5:** List Palestinian sailor names who have a red boat.

Note: Once I lunch your application, it must show me initial predefined data to test the buttons.

READ ME:

- The name of the application must be in the following convention: UID FirstName FamilyName.
- The Database name must follow the following convention: MUID (e.g.: M1161301) **[NOTE ME]**
- 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.
- The ToDo is individual and Cheat is not allowed (Lead to a 0 mark!) We'll be very strict about that. It's Okay to collaborate, but don't take your mate's solution!

Delay Penalty:

- 1-day after the deadline (-30%).
- 2-days after the deadline(-50%).
- 3-days after the deadline(-70%).
- 4-day after the deadline (No guarantee to evaluate your work!)

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)
Note the 'locate' word which will appear.
- Text file that shows the SQL query you used for each button **[NOTE ME]**

Where to submit?

- Reply to the message on Ritaj Only!

Deadline:

- 26-11-2022 11:59 PM