

COMP 125 Android App: Dojo Manager

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ABSTRACT

(12/06/2018) This application allows the owner of a karate school add, view, and delete Students stored in a database. Its purpose is to digitally record the information found on membership forms and to therefore have contact information available at any time. This replaces the need to take any sort of paper records into the field and merely use them as a backup. Future additions might include scheduling belt tests, scheduling competitions or recording results, and even pushing lesson plans and scheduling far in advance.

FEATURES

This app contains 4 primary features:

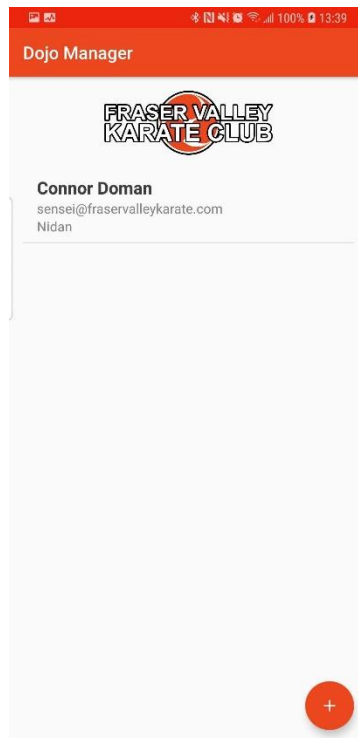
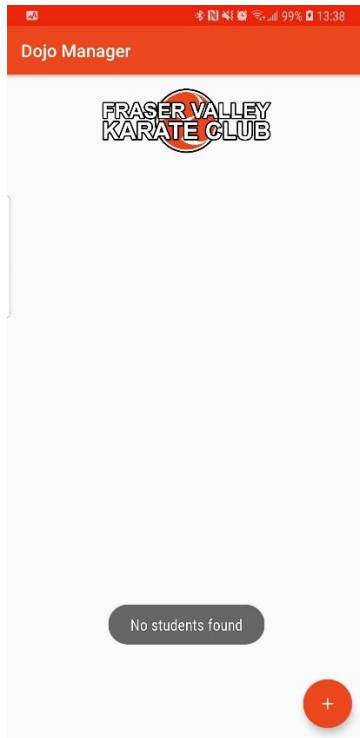
1. Listing Students
2. Adding Students
3. Displaying/expanding Students
4. Deleting Students

Students are stored in a SQLite database abstracted through *Room Persistence Library*. This allows SQL objects and database accesses to be done through Java objects rather than explicit SQL queries. The *Student* object contains the following columns:

- Student ID as *Student_id* (PRIMARY_KEY)
- First Name as *first_name*
- Last Name as *last_name*
- Birthdate as *birthdate*
- Preferred Email as *email_pref*
- Secondary Email as *email_sec*
- Preferred Phone as *phone_pref*
- Secondary Phone as *phone_sec*
- Parents' Names as *parents*
- Preferred Contact Method as *preferred_contact*
- Address as *address*
- Belt Colour as *belt_colour*

These columns are used by the Student database access object (*StudentDao*) to add, display, and delete Students.

DESIGN



First Screen (MainActivity.java):

Where Students are listed when the database is populated. If there are no items, a Toast lets you know.

A screenshot of a mobile application titled "New Student". It features a form with several input fields: "First name", "Last name", "Phone (preferred)", "Phone (secondary)", "Email (preferred)", "Email (secondary)", "Preferred contact method" (with radio buttons for "Email" and "Phone"), "Address", "Birthdate", "Parents/guardians", and "Belt colour". At the bottom is a grey button labeled "ADD STUDENT".

After Clicking "+" (AddStudentActivity.java):

Where the info for the Student is to be filled out, with a Toast either confirming the addition or stating that the Student already exists in the list.



After Clicking a Student (DisplayStudentActivity.java):

Displays all the same information found on the addition screen. In the future, it could be updated to be editable, but at this time deleting the entry with the FloatingActionButton in the corner and re-adding is the nearest solution.

/* Please note that my code is *ugly*. It works, but it could be exceedingly optimized. */

TODO

- Add edit functionality
- Create belt tests
- Add contact buttons

REFERENCES

- Google Inc. (2018, November 06). Save data in a local database using Room | Android Developers. Retrieved from Android Developers: <https://developer.android.com/training/data-storage/room/>
- Stack Exchange Inc. *Multiple Articles*. Retrieved from Stack Overflow: <https://stackoverflow.com/>