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Part 1:

Reflection:

In this section, I learned how to upload and reference custom drawables. I was able to modify the game list fragment to include an ImageView. When the RecyclerView is loading individual games, it determines which team is the winner and sets the appropriate picture in the ImageView.

Screenshots:

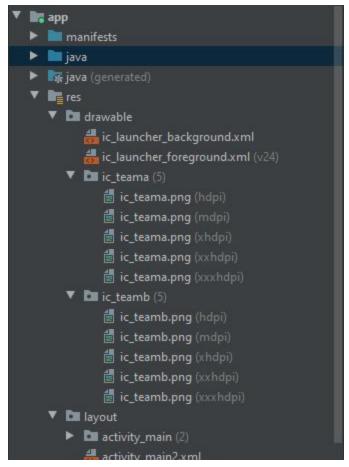


Figure 1: Relative Drawables Directory

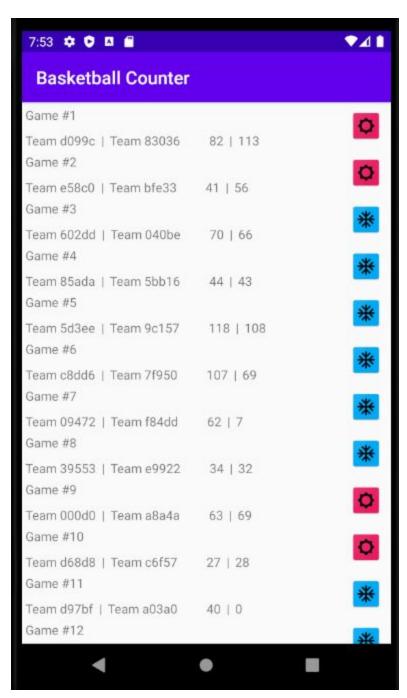


Figure 2: Varied Team Logos (Blue = Team A, Red = Team B)

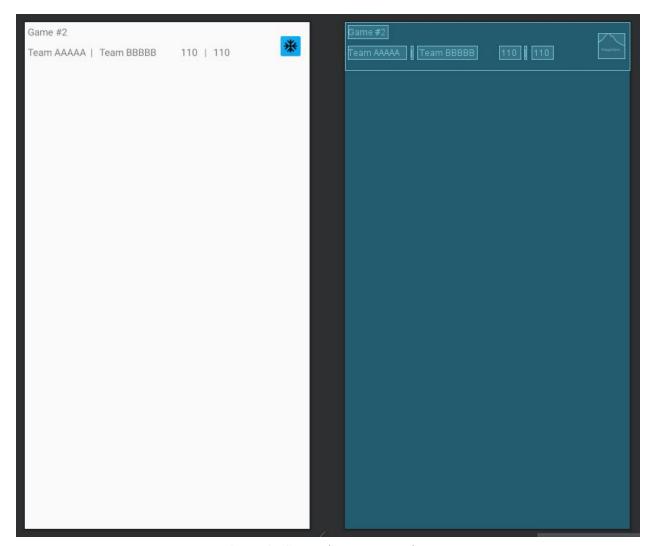


Figure 3: ConstraintLayout Design

Part 2:

Reflection:

In this section I learned how to leverage fragment arguments to pass relevant data between fragments in the single activity architecture. I was also able to learn how to select a single item in a RecyclerView, get its information, and pass it into a function.

Screenshots:

```
2020-09-24 20:03:17.434 15652-15652/com.example.basketballcounter D/BasketballCounter: BasketballCounter instance created 2020-09-24 20:03:17.473 15652-15652/com.example.basketballcounter D/BasketballCounter: BC Fragment set callbacks in onAttach 2020-09-24 20:03:17.473 15652-15652/com.example.basketballcounter D/BasketballCounter: BC fragment created 2020-09-24 20:03:17.475 15652-15652/com.example.basketballcounter D/BasketballCounter: BC fragment view inflated 2020-09-24 20:03:17.569 15652-15652/com.example.basketballcounter D/BasketballCounter: BC fragment started 2020-09-24 20:03:33.974 15652-15652/com.example.basketballcounter D/BasketballCounter: BC Fragment display button clicked 2020-09-24 20:03:33.978 15652-15652/com.example.basketballcounter D/BasketballCounter: BasketballCounter displaying game list 2020-09-24 20:03:33.979 15652-15652/com.example.basketballcounter D/BasketballCounter: GLF: Attached and Callback set 2020-09-24 20:03:33.979 15652-15652/com.example.basketballcounter D/BasketballCounter: GLF: Team A is winning - false
```

Figure 1: Display Button Sequence Calls



Figure 2: Game List Displayed

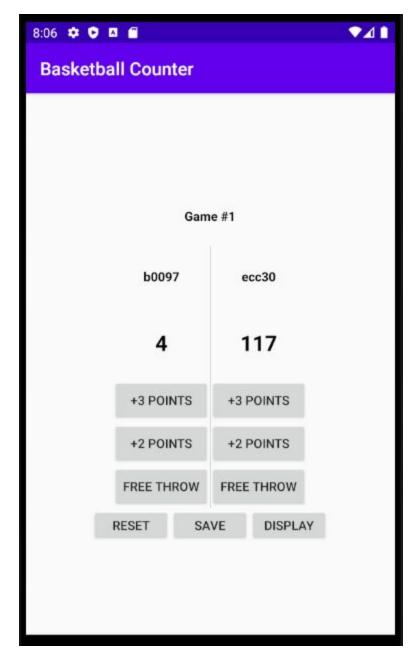


Figure 3: First Game Selected

Part 3:

Reflection:

In this section I was able to learn how to utilize the repository pattern and Room library to insert, update, and select information from a database. I also learned how to use the Device File Explorer to add dummy data into an AVD's file system for use in testing queries. LiveData was also used to run queries in the background and automatically update the UI once results were available.

Screenshots:

```
C:\Users\rhwal\Desktop>cd databases

C:\Users\rhwal\Desktop\databases>>sqlite3 game-database

SQLite version 3.33.0 2020-08-14 13:23:32

Enter ".help" for usage hints.

sqlite> .schema

CREATE TABLE android_metadata (locale TEXT);

CREATE TABLE android_metadata (locale TEXT);

CREATE TABLE 'table_game` ('id` TEXT NOT NULL, 'teamAName` TEXT NOT NULL, 'teamBName` TEXT NOT NULL, 'teamBScore` INTEGE

R NOT NULL, 'teamBScore` INTEGER NOT NULL, 'date` INTEGER NOT NULL, PRIMARY KEY('id'));

CREATE TABLE room_master_table (id INTEGER PRIMARY KEY,identity_hash TEXT);

sqlite> select count(*) from table_game

...>;

252

sqlite>
```

Figure 1: Console Output from SQLite Commands