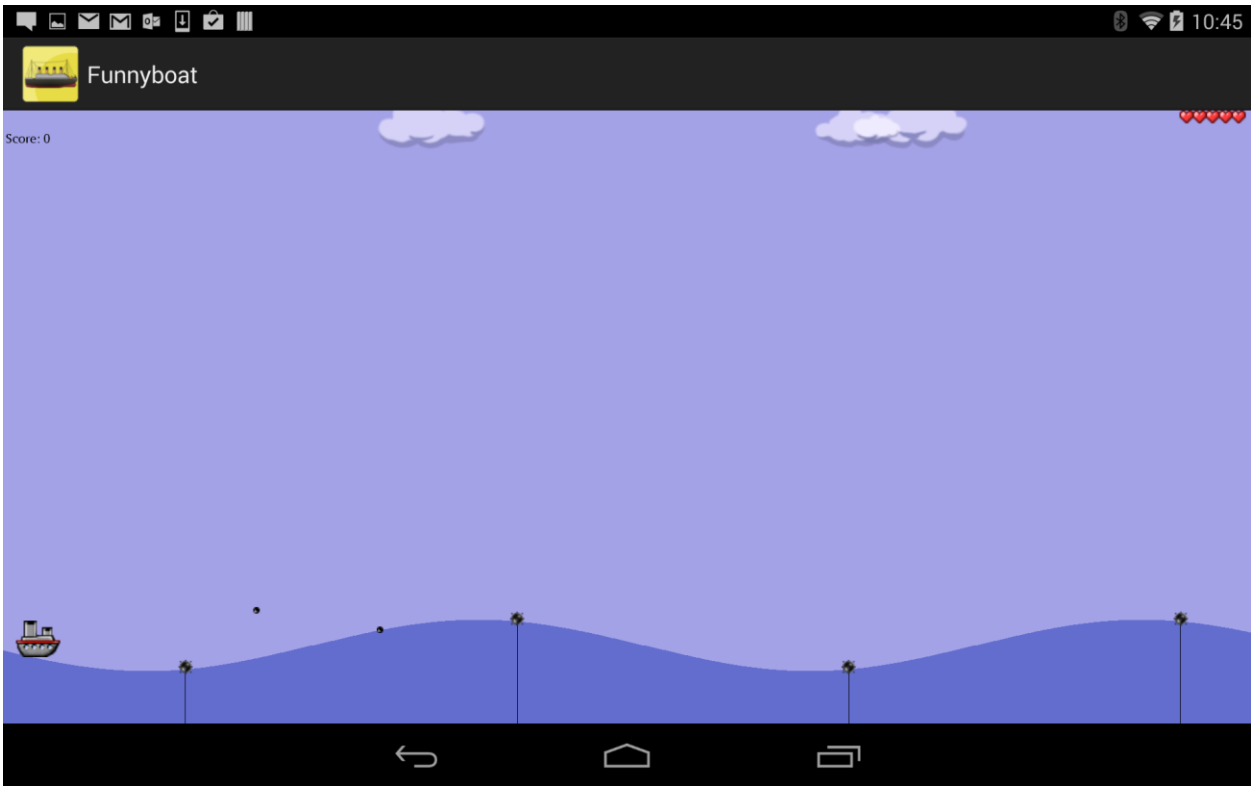
Lab 5

CS590BD Big Data Analytics and Applications

-FunnyBoat-



by

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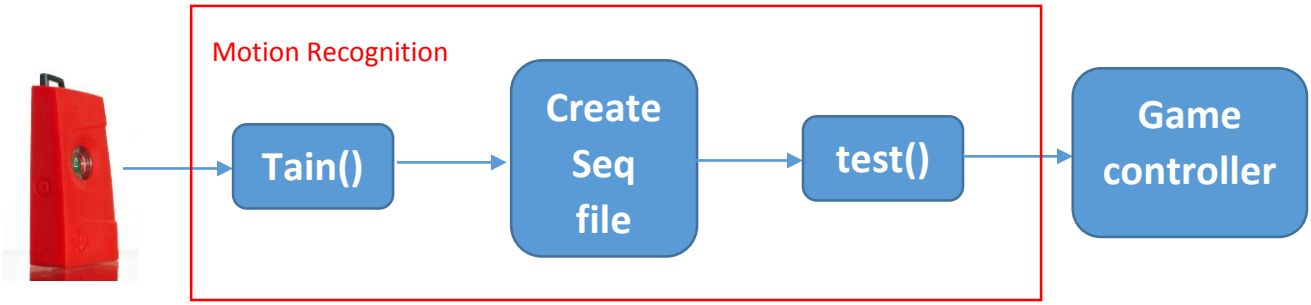
ABSTRACT

In lab 5, we build an on-line motion-based game. The game is an open source game called “FunnyBoat”, which is a boat sailing in the see and can shoot and jump above obstacles facing it. We modified the code to collect the data from sensorTag, train the data, and then test the data using files stored in real-time in the SDcard of the device. The overall work flow of this lab is shown in the following figure.



The open source game has the following classes:

- Game
- GameObject
- GameModule
- Bullet
- DeathBody
- Enemey
- GamePlay
- Player
- MainActivity
- Water
- Menu

To modify the game to match our needs, we added and modified the following files from the FlappyCow game provided in blackboard:

- ConnectionService
- TestGesture
- SensorTag

Since the game has the ability to jump the boat whever there is an obstacle infront of it, we trained our data on a gesture and made that gesture result in triggering the jump() function in the game.

- First, we started by calling the *ConnectionService* class form the *onCreate()* in the main game body in *MainActivity*

```
startService(new Intent(this,ConnectionService.class));
```

- After collecting data, it is organized in *updateAccelerometerCals* function and later to create the sequence file
- *TestGesture* class is used to test the gestures, calculate and determine probabilities
- After determining the gestures, we register a receive and call the broadcast services in the *Game* class

```
egisterReceiver(receiver, new IntentFilter("myproject"));
```

- Then we call the *jump()* function for the stomp gesture

```
public void onReceive(Context context, Intent intent) {
                    Bundle bundle = intent.getExtras();
                    if (bundle!=null) {

                          //extra data inserted into the fired intent
                          String data = bundle.getString("data");
                          Log.i("data in main class", data);


                          if ("stomp".equalsIgnoreCase(data)) {
                                //view.flyCow();

                                obj.jump();
                          }

                          //Toast.makeText(getApplicationContext(), "Ok",
Toast.LENGTH_SHORT).show();
                    }else{
                          Log.i("data in main class", "bundle null");
                          //Toast.makeText(getApplicationContext(), "not",
Toast.LENGTH_SHORT).show();
                    }
                    //handleResult(bundle);
              }
```