

Phase 3 Deadline 1 – Flounders (Sequence)

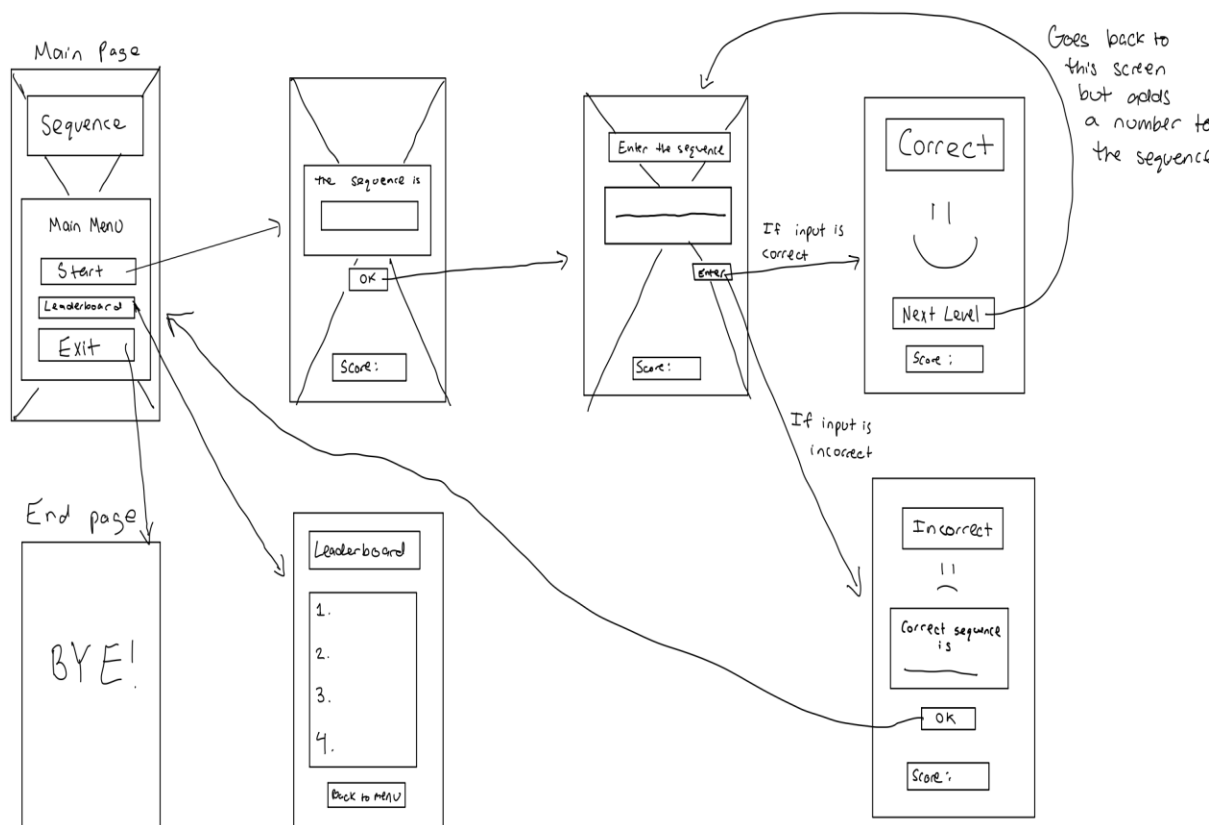
Members -

- Araham Kadakia – arahan03@my.yorku.ca - Section M Lab03
- Hiba Halani – hiba924@my.yorku.ca - Section N Lab01
- Saimanoj Yarasi – manojy11@my.yorku.ca - Section N Lab04
- Tabassum Rahman – maureen4@my.yorku.ca - Section M Lab02

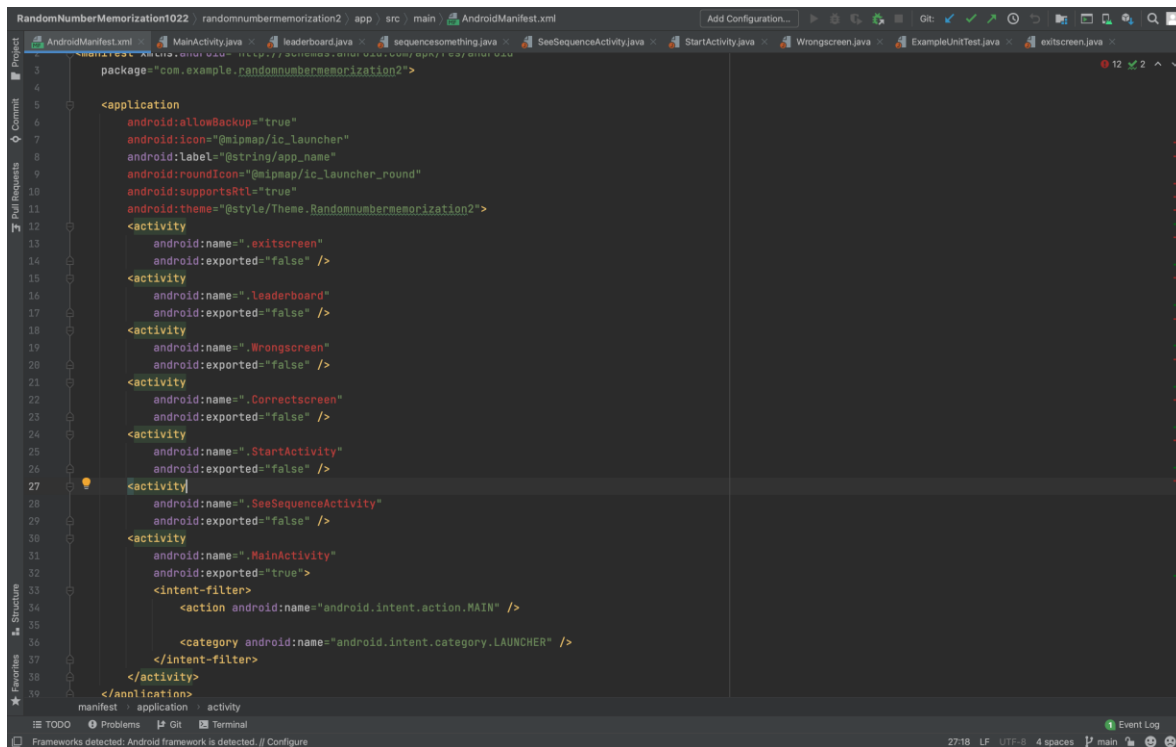
Project Title - Random Number Memorization (App name: Sequence)

Phase 2 Document - (I had to screenshot it as Microsoft Word wasn't letting me upload the Phase 2 file)

Wireframes Together
Wednesday, February 16, 2022 3:13 PM

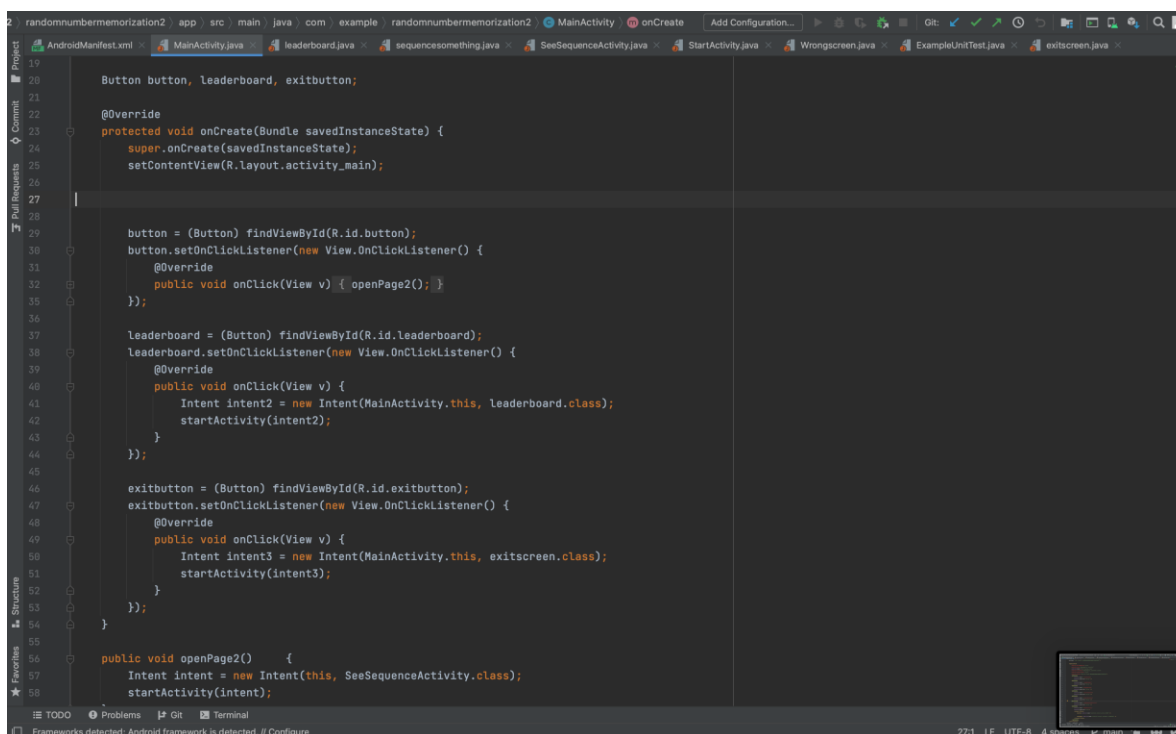


Phase 3 Deadline 1 - (Here are some pictures of our code written in Java on Android Studio.)



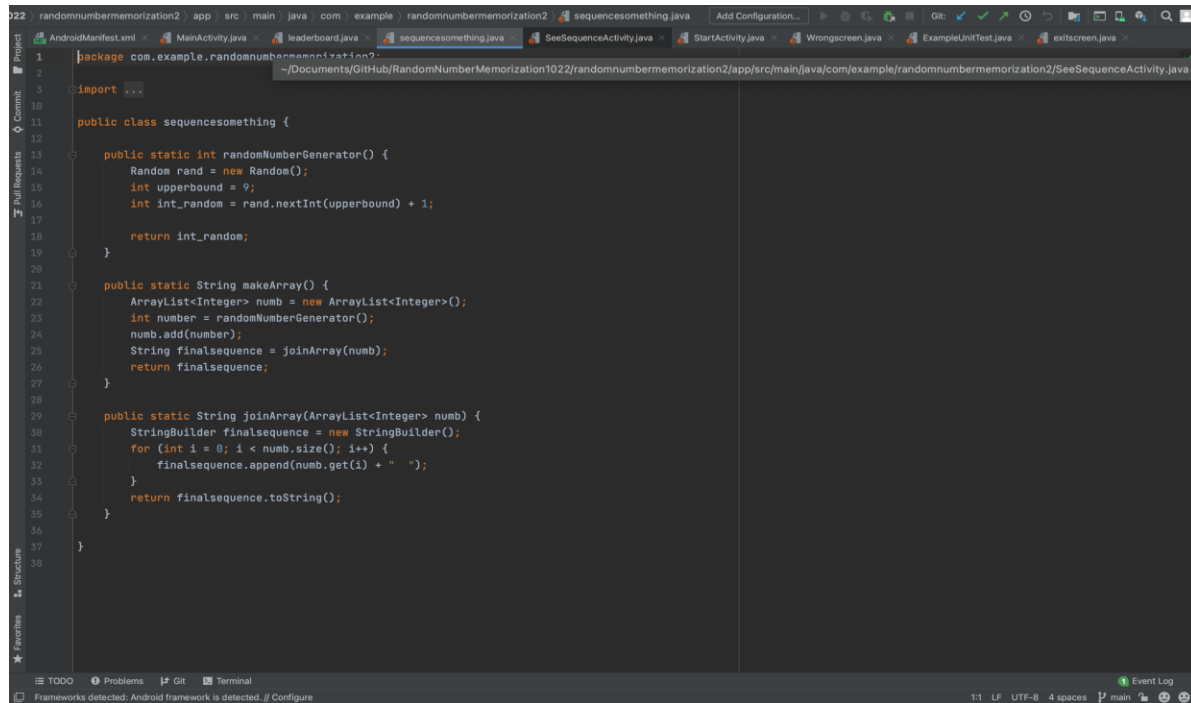
This screenshot shows the `AndroidManifest.xml` file in Android Studio. The manifest defines the application package as `com.example.randomnumbermemorization2` and lists several activities. The `MainActivity` is the primary activity, with an intent filter for the `android.intent.action.MAIN` category. Other activities include `exitScreen`, `leaderboard`, `wrongScreen`, `correctScreen`, `startActivity`, `seeSequenceActivity`, and `sequenceSomething`.

```
1 package="com.example.randomnumbermemorization2">
2
3 <application
4     android:allowBackup="true"
5     android:icon="@mipmap/ic_launcher"
6     android:label="@string/app_name"
7     android:roundIcon="@mipmap/ic_launcher_round"
8     android:supportRtl="true"
9     android:theme="@style/Theme.Randomnumbermemorization2">
10
11     <activity
12         android:name=".exitScreen"
13         android:exported="false" />
14
15     <activity
16         android:name=".leaderboard"
17         android:exported="false" />
18
19     <activity
20         android:name=".wrongScreen"
21         android:exported="false" />
22
23     <activity
24         android:name=".correctScreen"
25         android:exported="false" />
26
27     <activity
28         android:name=".startActivity"
29         android:exported="false" />
30
31     <activity
32         android:name=".seeSequenceActivity"
33         android:exported="false" />
34
35     <activity
36         android:name=".MainActivity"
37         android:exported="true">
38         <intent-filter>
39             <action android:name="android.intent.action.MAIN" />
40
41             <category android:name="android.intent.category.LAUNCHER" />
42         </intent-filter>
43     </activity>
44 </application>
```

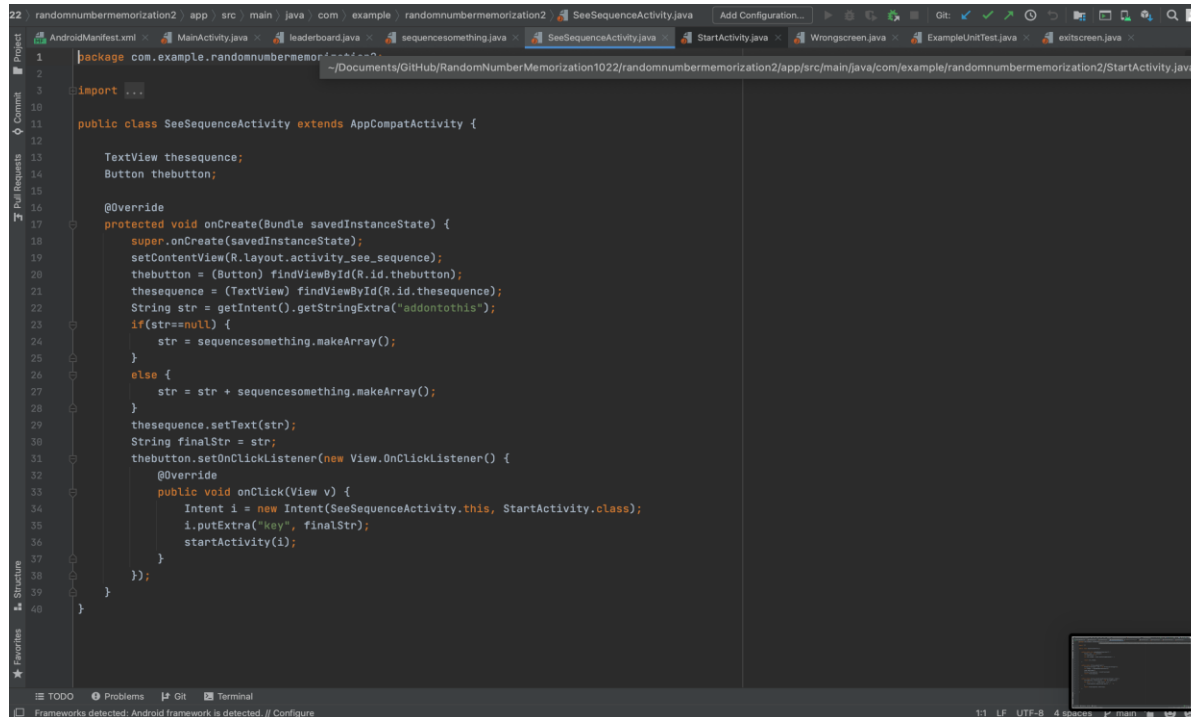


This screenshot shows the `MainActivity.java` file in Android Studio. The code implements the `onCreate` method, which initializes the UI elements (button, leaderboard, and exit button) and sets up click listeners. The `openPage2` method is also defined, which starts the `SeeSequenceActivity`.

```
19 Button button, leaderboard, exitbutton;
20
21
22 @Override
23 protected void onCreate(Bundle savedInstanceState) {
24     super.onCreate(savedInstanceState);
25     setContentView(R.layout.activity_main);
26
27
28
29     button = (Button) findViewById(R.id.button);
30     button.setOnClickListener(new View.OnClickListener() {
31         @Override
32         public void onClick(View v) { openPage2(); }
33     });
34
35     leaderboard = (Button) findViewById(R.id.leaderboard);
36     leaderboard.setOnClickListener(new View.OnClickListener() {
37         @Override
38         public void onClick(View v) {
39             Intent intent2 = new Intent(MainActivity.this, leaderboard.class);
40             startActivity(intent2);
41         }
42     });
43
44     exitbutton = (Button) findViewById(R.id.exitbutton);
45     exitbutton.setOnClickListener(new View.OnClickListener() {
46         @Override
47         public void onClick(View v) {
48             Intent intent3 = new Intent(MainActivity.this, exitScreen.class);
49             startActivity(intent3);
50         }
51     });
52
53
54
55 public void openPage2() {
56     Intent intent = new Intent(this, SeeSequenceActivity.class);
57     startActivity(intent);
58 }
```



```
1 package com.example.randomnumbermemorization2;
2
3 import ...
4
5
6
7
8
9
10
11 public class sequencesomething {
12
13     public static int randomNumberGenerator() {
14         Random rand = new Random();
15         int upperbound = 9;
16         int int_random = rand.nextInt(upperbound) + 1;
17
18         return int_random;
19     }
20
21     public static String makeArray() {
22         ArrayList<Integer> numb = new ArrayList<Integer>();
23         int number = randomNumberGenerator();
24         numb.add(number);
25         String finalsequence = joinArray(numb);
26         return finalsequence;
27     }
28
29     public static String joinArray(ArrayList<Integer> numb) {
30         StringBuilder finalsequence = new StringBuilder();
31         for (int i = 0; i < numb.size(); i++) {
32             finalsequence.append(numb.get(i) + " ");
33         }
34         return finalsequence.toString();
35     }
36
37 }
38
```



```
1 package com.example.randomnumbermemorization2;
2
3 import ...
4
5
6
7
8
9
10
11 public class SeeSequenceActivity extends AppCompatActivity {
12
13     TextView thesequence;
14     Button thebutton;
15
16
17     @Override
18     protected void onCreate(Bundle savedInstanceState) {
19         super.onCreate(savedInstanceState);
20         setContentView(R.layout.activity_see_sequence);
21         thebutton = (Button) findViewById(R.id.thebutton);
22         thesequence = (TextView) findViewById(R.id.thesequence);
23         String str = getIntent().getStringExtra("addontothis");
24         if(str==null) {
25             str = sequencesomething.makeArray();
26         }
27         else {
28             str = str + sequencesomething.makeArray();
29         }
30         thesequence.setText(str);
31         String finalStr = str;
32         thebutton.setOnClickListener(new View.OnClickListener() {
33             @Override
34             public void onClick(View v) {
35                 Intent i = new Intent(SeeSequenceActivity.this, StartActivity.class);
36                 i.putExtra("key", finalStr);
37                 startActivity(i);
38             }
39         });
40     }
41 }
42
```

GitHub Repo Link - <https://github.com/hiba924/RandomNumberMemorization1022.git>

(Also included a zip file in submission)

Some key takeaways – We learnt how to understand Android Studio's app building process.

We've implemented knowledge learnt from labs that we have done with IntelliJ to create working functions for our app. Another key tool which was present throughout constructing our project was the textbook. It assisted us with a lot of important points we needed clearance on or some new additional information we were not aware of. We are continuing to intergrade some more features and the corresponding functions to perfect our application. Also, another thing we have learnt that is new to us is creating a lot of the features that the app houses. Features such as a homepage, leaderboard of past and present score(s), game screen, etc. Some new tools that are going to be added are some testing tools/functions which will be needed to eliminate any defects and fix them.