

Team 4 Coding Report

Due April 20, 2020

Team 4 (Caroline, Joe, Liam, Lina, Mariem, Mary)

1. List of files created by the team and the devices on which they run:
 - a. activity_main.xml – Android device
 - b. activity_login.xml – Android device
 - c. search_activity.xml – Android device
 - d. search_fragment.xml – Android device
 - e. dashboard_actvty.xml – Android device
 - f. dashboard_fragment.xml – Android device
 - g. AndroidManifest.xml – Android device
 - h. MainActivity.java – Android device
 - i. LoginActivity.java – Android device
 - j. SearchActivity.java – Android device
 - k. DashboardActivity.java – Android device
 - l. SearchFragment.java – Android device
 - m. SearchViewModel.java – Android device/connects to server
 - n. DashboardFragment.java – Android device
 - o. DashboardViewModel.java – Android device/connects to server
 - p. TeacherProfile.java – Android device
2. See following pages for code snapshots.

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:
  android="http://schemas.android.com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".MainActivity">
8
9   <Button
10    android:id="@+id/dashboard_button"
11    android:layout_width="wrap_content"
12    android:layout_height="wrap_content"
13    android:text="Dashboard"
14    app:layout_constraintBottom_toBottomOf="parent"
15    app:layout_constraintEnd_toEndOf="parent"
16    app:layout_constraintHorizontal_bias="0.5"
17    app:layout_constraintStart_toStartOf="parent"
18    app:layout_constraintTop_toTopOf="parent" />
19
20   <Button
21    android:id="@+id/search_button"
22    android:layout_width="wrap_content"
23    android:layout_height="wrap_content"
24    android:text="Search"
25    app:layout_constraintBottom_toBottomOf="parent"
26    app:layout_constraintHorizontal_bias="0.498"
27    app:layout_constraintStart_toStartOf="@+id/
  dashboard_button"
28    app:layout_constraintEnd_toEndOf="@+id/
  dashboard_button"
29    app:layout_constraintTop_toBottomOf="@+id/
  dashboard_button"
30    app:layout_constraintVertical_bias="0.187" />
31
32 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:
  android="http://schemas.android.com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".LoginActivity">
8
9   <EditText
10    android:id="@+id/etName"
11    android:layout_width="wrap_content"
12    android:layout_height="wrap_content"
13    android:ems="10"
14    android:hint="Name"
15    android:inputType="textPersonName"
16    app:layout_constraintBottom_toBottomOf="parent"
17    app:layout_constraintEnd_toEndOf="parent"
18    app:layout_constraintStart_toStartOf="parent"
19    app:layout_constraintTop_toTopOf="parent"
20    app:layout_constraintVertical_bias="0.437" />
21
22   <EditText
23    android:id="@+id/etPassword"
24    android:layout_width="wrap_content"
25    android:layout_height="wrap_content"
26    android:ems="10"
27    android:hint="Password"
28    android:inputType="textPassword"
29    app:layout_constraintBottom_toBottomOf="parent"
30    app:layout_constraintEnd_toEndOf="parent"
31    app:layout_constraintStart_toStartOf="parent"
32    app:layout_constraintTop_toBottomOf="@+id/etName"
33    app:layout_constraintVertical_bias="0.132" />
34
35   <Button
36    android:id="@+id/btlogin"
37    android:layout_width="wrap_content"
38    android:layout_height="wrap_content"
39    android:layout_marginBottom="16dp"
40    android:text="Login"
41    app:layout_constraintBottom_toBottomOf="parent"
42    app:layout_constraintEnd_toEndOf="parent"
43    app:layout_constraintHorizontal_bias="0.498"
44    app:layout_constraintStart_toStartOf="parent"
45    app:layout_constraintTop_toBottomOf="@+id/
etPassword"
46    app:layout_constraintVertical_bias="0.202" />
47
48   <TextView
```

```
49      android:id="@+id/tvinfo"
50      android:layout_width="wrap_content"
51      android:layout_height="wrap_content"
52      android:text="No of incorrect attempts:"
53      android:textStyle="bold"
54      app:layout_constraintBottom_toBottomOf="parent"
55      app:layout_constraintEnd_toEndOf="parent"
56      app:layout_constraintStart_toStartOf="parent"
57      app:layout_constraintTop_toBottomOf="@+id/btlogin"
58      app:layout_constraintVertical_bias="0.247" />
59
60  <ImageView
61      android:id="@+id/imageView"
62      android:layout_width="186dp"
63      android:layout_height="306dp"
64      app:layout_constraintBottom_toTopOf="@+id/etName"
65      app:layout_constraintEnd_toEndOf="parent"
66      app:layout_constraintHorizontal_bias="0.497"
67      app:layout_constraintStart_toStartOf="parent"
68      app:srcCompat="@drawable/leaps_logo" />
69
70  <TextView
71      android:id="@+id/tvsignup"
72      android:layout_width="wrap_content"
73      android:layout_height="wrap_content"
74      android:text="Sign-up"
75      android:textColor="#440B4B"
76      android:textColorLink="#440B4B"
77      app:layout_constraintBottom_toTopOf="@+id/tvinfo"
78      app:layout_constraintEnd_toEndOf="parent"
79      app:layout_constraintStart_toStartOf="parent"
80      app:layout_constraintTop_toBottomOf="@+id/btlogin"
81
82
83  </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <FrameLayout xmlns:android="http://schemas.android.com/apk/
res/android"
3     xmlns:tools="http://schemas.android.com/tools"
4     android:id="@+id/container"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".SearchActivity" />
8
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:
  android="http://schemas.android.com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:id="@+id/search"
6   android:layout_width="match_parent"
7   android:layout_height="match_parent"
8   tools:context=".ui.search.SearchFragment">
9
10  <TextView
11    android:id="@+id/message"
12    android:layout_width="wrap_content"
13    android:layout_height="wrap_content"
14    android:text="Search for jobs"
15    app:layout_constraintEnd_toEndOf="parent"
16    app:layout_constraintStart_toStartOf="parent"
17    app:layout_constraintTop_toTopOf="parent" />
18
19  <TextView
20    android:id="@+id/job"
21    android:layout_width="wrap_content"
22    android:layout_height="wrap_content"
23    app:layout_constraintBottom_toBottomOf="parent"
24    app:layout_constraintEnd_toEndOf="parent"
25    app:layout_constraintStart_toStartOf="parent"
26    app:layout_constraintTop_toTopOf="parent" />
27
28 </androidx.constraintlayout.widget.ConstraintLayout>
29
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <FrameLayout xmlns:android="http://schemas.android.com/apk/
res/android"
3     xmlns:tools="http://schemas.android.com/tools"
4     android:id="@+id/container"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".DashboardActivity" />
8
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:
  android="http://schemas.android.com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:id="@+id/dashboard"
6   android:layout_width="match_parent"
7   android:layout_height="match_parent"
8   tools:context=".ui.dashboard.DashboardFragment">
9
10 <TextView
11   android:id="@+id/message"
12   android:layout_width="wrap_content"
13   android:layout_height="wrap_content"
14   android:text="Welcome to your Dashboard."
15   app:layout_constraintBottom_toBottomOf="parent"
16   app:layout_constraintEnd_toEndOf="parent"
17   app:layout_constraintStart_toStartOf="parent"
18   app:layout_constraintTop_toTopOf="parent" />
19
20 <TextView
21   android:id="@+id/username"
22   android:layout_width="wrap_content"
23   android:layout_height="wrap_content"
24   android:layout_marginStart="32dp"
25   android:layout_marginTop="32dp"
26   android:textSize="20dp"
27   app:layout_constraintStart_toStartOf="parent"
28   app:layout_constraintTop_toTopOf="parent" />
29
30 </androidx.constraintlayout.widget.ConstraintLayout>
31
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3     package="com.example.teachertinder">
4
5     <application
6         android:allowBackup="true"
7         android:icon="@mipmap/ic_launcher"
8         android:label="@string/app_name"
9         android:roundIcon="@mipmap/ic_launcher_round"
10        android:supportsRtl="true"
11        android:theme="@style/Theme.AppCompat.Light.
12          NoActionBar">
12      <activity android:name=".SearchActivity"></activity>
13      <activity android:name=".DashboardActivity" />
14      <activity android:name=".MainActivity" />
15      <activity android:name=".LoginActivity">
16          <intent-filter>
17              <action android:name="android.intent.action.MAIN" />
18
19              <category android:name="android.intent.
20                category.LAUNCHER" />
20          </intent-filter>
21      </activity>
22  </application>
23
24 </manifest>
```

```
1 package com.example.teachertinder;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.content.Context;
6 import android.content.Intent;
7 import android.os.Bundle;
8 import android.view.View;
9 import android.widget.Button;
10
11 public class MainActivity extends AppCompatActivity {
12
13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         setContentView(R.layout.activity_main);
17         final Context context = getApplicationContext();
18
19         final Button dashboardButton = findViewById(R.id.
    dashboard_button);
20         dashboardButton.setOnClickListener(new View.
    OnClickListener() {
21             public void onClick(View v) {
22                 Intent intent = new Intent(context,
    DashboardActivity.class);
23                 startActivity(intent);
24             }
25         });
26
27         final Button searchButton = findViewById(R.id.
    search_button);
28         searchButton.setOnClickListener(new View.
    OnClickListener() {
29             public void onClick(View v) {
30                 Intent intent = new Intent(context,
    SearchActivity.class);
31                 startActivity(intent);
32             }
33         });
34     }
35
36
37 }
38
```

```
1 package com.example.teachertinder;
2
3 import androidx.annotation.NonNull;
4 import androidx.appcompat.app.AppCompatActivity;
5
6 import android.content.Intent;
7 import android.os.Bundle;
8 import android.text.SpannableString;
9 import android.text.Spanned;
10 import android.text.method.LinkMovementMethod;
11 import android.text.style.ClickableSpan;
12 import android.view.View;
13 import android.widget.EditText;
14 import android.widget.TextView;
15 import android.widget.Button;
16
17 /** Activity to login. */
18 public class LoginActivity extends AppCompatActivity {
19
20     private EditText Name;
21     private EditText Password;
22     private TextView Info;
23     private Button Login;
24     private TextView Signup;
25     private int counter = 5;
26
27     @Override
28     protected void onCreate(Bundle savedInstanceState) {
29         super.onCreate(savedInstanceState);
30         setContentView(R.layout.activity_login);
31
32         // Creating the objects and linking them to their
33         // corresponding
34         // screen elements
35
36         Name = (EditText)findViewById(R.id.etName);
37         Password = (EditText)findViewById(R.id.etPassword);
38         Info = (TextView)findViewById(R.id.tvinfo);
39         Login = (Button) findViewById(R.id.btlogin);
40         Signup = (TextView) findViewById(R.id.tvsignup);
41
42         Info.setText("No of attempts remaining: 5");
43
44         Login.setOnClickListener(new View.OnClickListener
45         () {
46             @Override
47             public void onClick(View v) {
48                 validate(Name.getText().toString(),
49                 Password.getText().toString());
50             }
51         });
52
53     }
54
55     private void validate(String name, String password) {
56
57         if (name.equals("") || password.equals("")) {
58             Info.setText("Please enter both fields");
59         } else {
60             Intent intent = new Intent(LoginActivity.this,
61             TeacherListActivity.class);
62             startActivity(intent);
63         }
64     }
65
66     private void incrementCounter() {
67
68         counter--;
69
70         if (counter <= 0) {
71             Info.setText("Sorry, you have run out of attempts!");
72             return;
73         }
74
75         Info.setText("No of attempts remaining: " + counter);
76     }
77
78     private void decrementCounter() {
79
80         counter--;
81
82         if (counter <= 0) {
83             Info.setText("Sorry, you have run out of attempts!");
84             return;
85         }
86
87         Info.setText("No of attempts remaining: " + counter);
88     }
89
90     private void validate() {
91
92         if (Name.getText().toString().equals("") ||
93             Password.getText().toString().equals("")) {
94             Info.setText("Please enter both fields");
95         } else {
96             Intent intent = new Intent(LoginActivity.this,
97             TeacherListActivity.class);
98             startActivity(intent);
99         }
100    }
101 }
```

```
/Users/linamcdermott/Desktop/CSC-312-Teacher-Matching-App/teacher-tinder/app/src/main/java/com/example/teachertinder/LoginActivity.java
48        });
49
50        String text = "Sign-up";
51
52        SpannableString ss = new SpannableString(text);
53
54        ClickableSpan clickableSpan1 = new ClickableSpan
55        () {
56            @Override
57            public void onClick(@NonNull View widget) {
58                Intent intent = new Intent(
59                    getApplicationContext(), MainActivity.class);
60                startActivity(intent);
61            }
62        };
63
64        ss.setSpan(clickableSpan1, 0, 7, Spanned.
65        SPAN_EXCLUSIVE_EXCLUSIVE);
66
67    }
68
69    /* This function checks whether the passwords entered
69     * is correct
70     * Parameters: userName, userPassword
71     * Returns: nothing
72     */
73    private void validate(String userName, String
73     userPassword){
74
75        // I. find the userName in the Database
76        // 1. if username found
77        // a. Get the password
78        // b. Check if the password matches userPassword
79        // c. if password is correct
80        // i. move to the next activity / Screen
81        // d. if password is NOT correct
82        // i. decrement the counter
83
84        // 2. if username not found
85        // a. return an error that the user name enter is
85        wrong
86
87        // This is an example of a simple implementation
87        for a successful scenario
88
89        if ((userName.equals("Admin")) && (userPassword.
```

```
89 equals("1234")){  
90         Intent intent = new Intent(this, MainActivity.  
91         class);  
92         startActivity(intent);  
93     } else{  
94         counter--;  
95  
96         Info.setText(getString(R.string.blank, counter  
97 ));  
97         if (counter == 0){  
98             Login.setEnabled(false);  
99         }  
100  
101     }  
102 }  
103 }  
104
```

```
1 package com.example.teachertinder;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 import com.example.teachertinder.ui.search.SearchFragment;
8
9 /** Activity to display search and search results. */
10 public class SearchActivity extends AppCompatActivity {
11
12     @Override
13     protected void onCreate(Bundle savedInstanceState) {
14         super.onCreate(savedInstanceState);
15         setContentView(R.layout.search_activity);
16         if (savedInstanceState == null) {
17             getSupportFragmentManager().beginTransaction()
18                 .replace(R.id.container, SearchFragment
19                 .newInstance())
20                 .commitNow();
21     }
22 }
23
```

```
1 package com.example.teachertinder;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 import com.example.teachertinder.ui.dashboard.
8 DashboardFragment;
9
10 /**
11  * Activity to show user dashboard.
12 */
13 public class DashboardActivity extends AppCompatActivity {
14
15     @Override
16     protected void onCreate(Bundle savedInstanceState) {
17         super.onCreate(savedInstanceState);
18         setContentView(R.layout.dashboard_activity);
19         if (savedInstanceState == null) {
20             getSupportFragmentManager().beginTransaction()
21                 .replace(R.id.container,
22                         DashboardFragment.newInstance())
23                 .commitNow();
24         }
25     }
26 }
```

```
1 package com.example.teachertinder.ui.search;
2
3 import androidx.lifecycle.ViewModelProviders;
4
5 import android.os.Bundle;
6
7 import androidx.annotation.NonNull;
8 import androidx.annotation.Nullable;
9 import androidx.fragment.app.Fragment;
10
11 import android.view.LayoutInflater;
12 import android.view.View;
13 import android.view.ViewGroup;
14 import android.widget.TextView;
15
16 import com.example.teachertinder.R;
17
18 /**
19  * Fragment for SearchActivity.
20 */
21 public class SearchFragment extends Fragment {
22
23     private SearchViewModel mViewModel;
24
25     public static SearchFragment newInstance() {
26         return new SearchFragment();
27     }
28
29     @Nullable
30     @Override
31     public View onCreateView(@NonNull LayoutInflater
32                             , @Nullable ViewGroup container,
33                             @Nullable Bundle
34                             savedInstanceState) {
35         return inflater.inflate(R.layout.search_fragment,
36                             container, false);
37     }
38
39     @Override
40     public void onActivityCreated(@Nullable Bundle
41                             savedInstanceState) {
42         super.onActivityCreated(savedInstanceState);
43         mViewModel = ViewModelProviders.of(this).get(
44             SearchViewModel.class);
45         // TODO: Use the ViewModel
46         String jobInfo = mViewModel.getJobInfo();
47         TextView jobTextView = (TextView) getView().
48             findViewById(R.id.job);
49         jobTextView.setText(jobInfo);
50     }
51 }
52 }
```

```
1 package com.example.teachertinder.ui.search;
2
3 import androidx.lifecycle.ViewModel;
4
5 /**
6  * ViewModel for SearchActivity.
7 */
8 public class SearchViewModel extends ViewModel {
9     // TODO: Implement the ViewModel
10    public String getJobInfo() {
11        // TODO: implement
12        return "Davidson College";
13    }
14}
```

```
1 package com.example.teachertinder.ui.dashboard;
2
3 import androidx.lifecycle.ViewModelProviders;
4
5 import android.os.Bundle;
6
7 import androidx.annotation.NonNull;
8 import androidx.annotation.Nullable;
9 import androidx.fragment.app.Fragment;
10
11 import android.view.LayoutInflater;
12 import android.view.View;
13 import android.view.ViewGroup;
14 import android.widget.TextView;
15
16 import com.example.teachertinder.R;
17
18 import org.w3c.dom.Text;
19
20 /**
21  * Fragment to show user dashboard.
22 */
23 public class DashboardFragment extends Fragment {
24
25     private DashboardViewModel mViewModel;
26
27     public static DashboardFragment newInstance() {
28         return new DashboardFragment();
29     }
30
31     @Nullable
32     @Override
33     public View onCreateView(@NonNull LayoutInflater
34                             inflater, @Nullable ViewGroup container,
35                             @Nullable Bundle
36                             savedInstanceState) {
37         return inflater.inflate(R.layout.dashboard_fragment
38             , container, false);
39     }
40
41     @Override
42     public void onActivityCreated(@Nullable Bundle
43                             savedInstanceState) {
44         super.onActivityCreated(savedInstanceState);
45         mViewModel = ViewModelProviders.of(this).get(
46             DashboardViewModel.class);
47         String profileInfo = mViewModel.getProfileInfo();
48         TextView usernameTextView = (TextView) getView()
49             .findViewById(R.id.username);
50         usernameTextView.setText(profileInfo);
51     }
52 }
```

45 }

46

```
1 package com.example.teachertinder.ui.dashboard;
2
3 import androidx.lifecycle.ViewModel;
4
5 /**
6  * ViewModel for user dashboard.
7 */
8 public class DashboardViewModel extends ViewModel {
9
10     public String getProfileInfo() {
11         // TODO: implement
12         return "Dr. Davidson";
13     }
14 }
```

```
1 package com.example.teachertinder;
2
3 public class TeacherProfile {
4
5     private String fullName;
6     private int yearsOfExperience;
7     private String[] subjectsTaught;
8     private String preferredRegion;
9     private String[] certificatesObtained;
10    private String bio;
11
12    // TODO: implement a builder design pattern instead.
13    public TeacherProfile(String fullName, int
14                          yearsOfExperience, String[] subjectsTaught,
15                          String preferredRegion, String[]
16                          certificatesObtained, String bio) {
17        this.fullName = fullName;
18        this.yearsOfExperience = yearsOfExperience;
19        this.subjectsTaught = subjectsTaught;
20        this.preferredRegion = preferredRegion;
21        this.certificatesObtained = certificatesObtained;
22        this.bio = bio;
23    }
24}
```