## Report of CS 522 Assignment 1

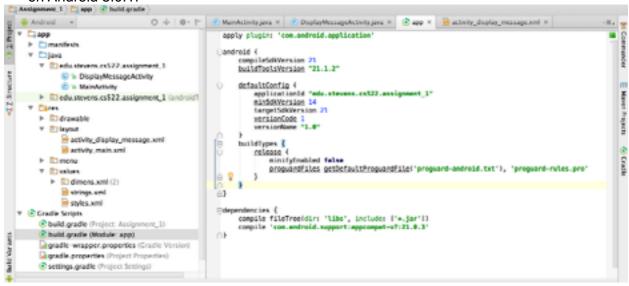
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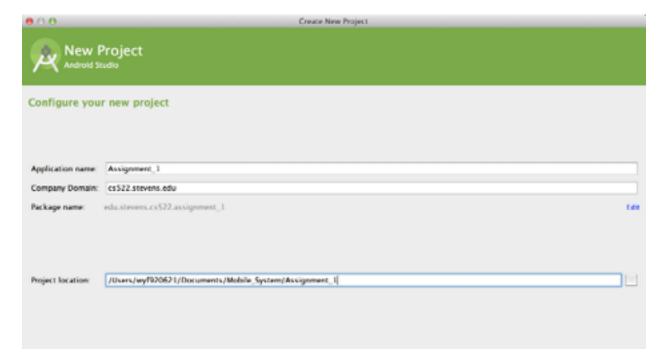
Video: In the Zip archive file, named "Yunfeng\_Wei.MOV"

## Steps to create the Android App

1. Start a new Android Studio Project, set the application name as Assignment\_1, set the domain name as <u>cs522.stevens.edu</u>, as Figure 1.1.1. In the project, open the build.gradle(Module: app), set the targetSdkVersion to 21 as Figure 1.1.2 in order to run it on Android 5.0.1.



**Figure 1.1.1** 



## Figure 1.1.2

2. In the project, select the activity\_main.xml in the folder 'res/layout', change the RelativeLayout to LinearLayout ,set the orientation of the layout to 'horizontal', delete the TextView and create a new EditText and a Button. Set the id of the EditText to 'edit\_message', the width to 1 and the hint of it to '@string/edit\_message' which will be defined in string.xml. Set the Button's content to 'SEND' and the OnClick() method to sendMessage() which will be defined in MainActivity.java. Figure 1.2.1 shows the Design view of the activity\_main.xml file,

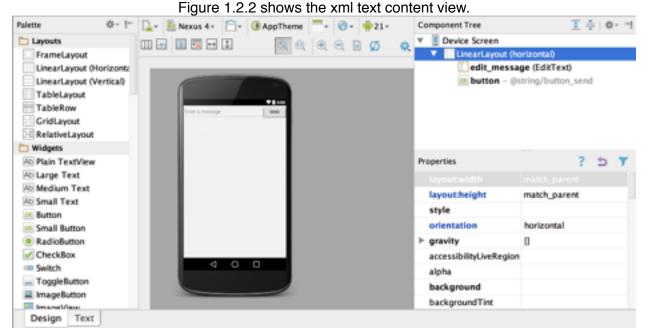


Figure 1.2.1

Figure 1.2.2

3. Modify the strings.xml file in the folder 'res/values' as Figure 1.3.1

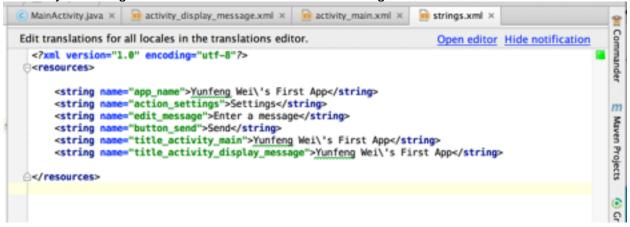


Figure 1.3.1

4. In the MainActivity.java, create a static constant string which is used for the Intent as the key. Set the string's content as "edu.stevens.cs522.assignment\_1.MESSAGE" as Figure 1.4.1

```
package edu.stevens.cs522.assignment_1;

import ...

public class MainActivity extends ActionBarActivity {
    public final static String EXTRA_MESSAGE = "edu.stevens.cs522.assignment_1.MESSAGE";

@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
}
```

**Figure 1.4.1** 

5. In the MainActivity.java, create a new method called sendMessage(), which is used to send the content of the message to another activity. In the method, define a new Intent for a new Activity 'DisplayMessageActivity' which is used to display the message. Use the findViewById() method to refer to the EditText in the activity\_main.xml, get the string in the EditText and send the message to the DisplayMessageActivity by intent. Start the Activity. sendMessage() method

is written as Figure 1.5.1

```
activity_display_message.xml × activity_main.xml ×
                                                                         strings.xml ×
                                                                                                            in Commander
          getMenuInflater().inflate(R.menu.menu_main, menu);
          return true;
      @Override
      public boolean onOptionsItemSelected(MenuItem item) {
8
0
          // Handle action bar item clicks here. The action bar will
                                                                                                            m
          // automatically handle clicks on the Home/Up button, so long
                                                                                                            Maven Projects
          // as you specify a parent activity in AndroidManifest.xml.
          int id = item.getItemId();
          //noinspection SimplifiableIfStatement
          if (id == R.id.action_settings) {
              return true;

    Gradle

          return super.onOptionsItemSelected(item);
0
      public void sendMessage(View view) {
          Intent intent = new Intent(this, DisplayMessageActivity.class);
          EditText editText = (EditText)findViewById(R.id.edit_message);
          String message = editText.getText().toString();
          intent.putExtra(EXTRA_MESSAGE, message);
          startActivity(intent);
```

**Figure 1.5.1** 

6. Create a new blank activity, set the activity name as "DisplayMessageActivity" and the Hierarchical Parent as "edu.stevens.cs522.assignment\_1.MainActivity" as Figure 1.6.1. In the onCreate() method, delete the callback of setContentView(). Define an Intent which is used to get Intent, define a new String to get the message from the Intent. Define a new TextView, set the size of the text as 40dp and set the content of the text as the message of the Intent. Finally, display the TextView on the Activity. Figure 1.6.2 shows the code of the onCreate() method.

Choose options for your new file			
	Creates a new blank ac	tivity with an action bar.	
( <b></b>	Activity Name:	DisplayMessageActivity	
	Layout Name:	activity_display_message	
	Title:	DisplayMessageActivity	
	Menu Resource Name:	menu_display_message	
		Launcher Activity	
	Hierarchical Parent:	edu.stevens.cs522.assignment_1.DisplayMessageActivity	
	Package name:	edu.stevens.cs522.assignment_1	
Blank Activity			

Figure 1.6.1

```
public class DisplayMessageActivity extends ActionBarActivity {

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);

    // Get the message from the intent
    Intent intent = getIntent();
    String message = intent.getStringExtra(MainActivity.EXTRA_MESSAGE);

    // Set the text view
    TextView textView = new TextView(this);
    textView.setTextSize(40);
    textView.setText(message);

    // Set the text view as the activity layout
    setContentView(textView);

//setContentView(R.layout.activity_display_message);

}
```

Figure 1.6.2

7. Finally, run the application on the phone, Figure 1.7.1, Figure 1.7.2, Figure 1.7.3 and Figure 1.7.4 show the result.

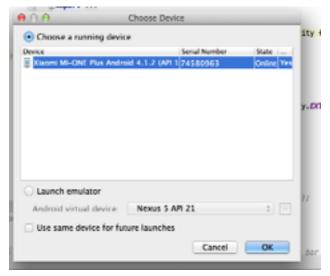


Figure 1.7.1

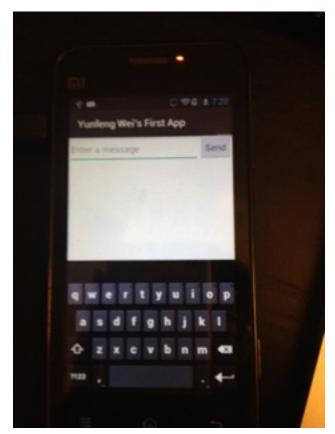


Figure 1.7.2

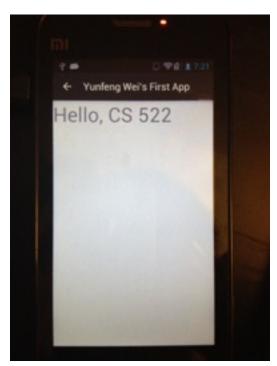


Figure 1.7.3

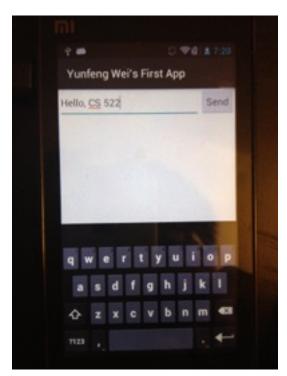


Figure 1.7.4