HW1:

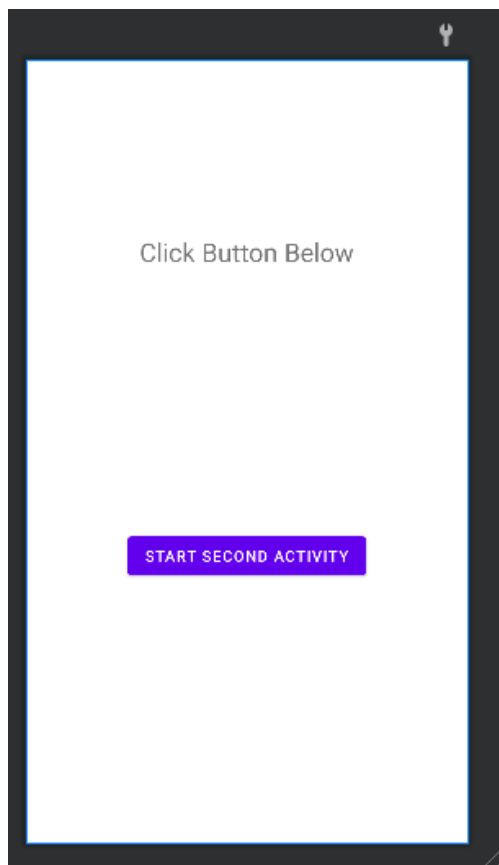# Switching Activities

Martin Mudenda Bbela

2582912

Overview:

This project is an android application that has two activites. Both activities will be blank except for the ability to switch between then at the click of a button found on each activity. The Main activity will also contain a count of how many times the application has switched back and forth Since it was opened.

Method:

Activity 1:

Created a new project called HW1. This will contain a blank activity.

First the Main activity is created. The Main activity has a Button and a Text View.


```xml
<TextView
    android:id="@+id/textViewSwitchingCount"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:autoSizeTextType="uniform"
    android:text="Click Button Below"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.234" />

<Button
    android:id="@+id/buttonStartNewActivity"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Start Second Activity"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textViewSwitchingCount" />
```

The Button and text view are wired into the Main activity.

```java
btnStartNewActivity = findViewById(R.id.buttonStartNewActivity);
tvSwitchingCount    = findViewById(R.id.textViewSwitchingCount);
count = 0;
```

Note that a Int variable *count* has been initialized with zero. This will represent the number of times the activity has been switched back and forth. Next the *btnStartNewActivity* is wired to a trigger opening the next activity with an intent.
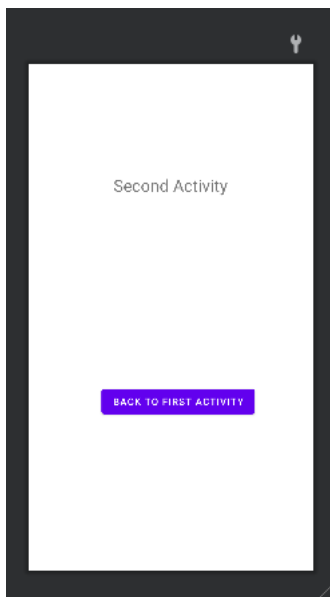
```java
btnStartNewActivity.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        //TODO how do you start a new activity
        //startActivity();
        Intent intent = new Intent(getApplicationContext(), SecondActivity.class);
        startActivity(intent);
    }
});
```

When the activity switches, it will trigger the current activity to run *onPause()*. This method is Overriden, allowing the *textViewSwitchingCount* to update with an incremented count value.

```java
@Override
protected void onPause() {
    super.onPause();
    tvSwitchingCount.setText("Switched Count: " + count++);
    Log.d(this.getLocalClassName(),  msg: "onPause: paused");
}
```

Activity2:

Much like Activity1, Activity2 will consist of a Button and a TextView

```xml
<TextView
    android:id="@+id/textViewSecondActivity"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Second Activity"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.227" />

<Button
    android:id="@+id/buttonCloseActivity"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="272dp"
    android:text="Back to First activity"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.555"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textViewSecondActivity"
    app:layout_constraintVertical_bias="0.0" />
```

Second Activity

BACK TO FIRST ACTIVITY

Activity2 will only have the btn wired to close this activity again revealing activity one again.

```java
btnCloseActivity    = findViewById(R.id.buttonCloseActivity);

btnCloseActivity.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        //TODO close activity
        finish();
    }
});
```

Result:

The application works as expected. Allowing the user to switch between activites and keeping count of how many times it has switched to activity 2.