



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment – 2.1

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**Semester:** 06

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**Subject Name:** Mobile Application Development Lab

**Subject Code:** 20CSP-356

### **1. Aim/Overview of the practical:**

Create an Android app that uses Intent and one button to create a page and passes values from one activity to another.

### **2. Task to be done:**

To Create an Android app that uses Intent and one button to switch and pass values between two activities and understand the specific requirements, possibilities and challenges when developing a mobile context.

### **3. System Requirements:**

The required tools to develop Android applications are open source and can be downloaded from the Web. Following is the list of software's you will need before you start your Android application programming.

- Android Studio .exe file
- Java JDK5 or later version
- Java Runtime Environment (JRE) 6 Android Studio

### **4. Steps of Experiment:**

In this experiment we are creating a button to submit values and pass it to another activity by using intents. On pressing the button, we will be moved to another activity.

**Step 01:** Now, start Android Studio app and start new project as “Experiment04” and select activity as “Empty Activity” as shown below and enter activity details such as activity name, package name, save location, language as Java, minimum SDK and then select Finish.



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**Step 02:** New window will open with MyActivity.java file, our new project is started as shown below:

## Code (for 1st activity):

### MainActivity.java:

```
package com.example.experiment_04;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    Button next;
    EditText name,UID,section;
    String n,u,s;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        next=findViewById(R.id.btnNext);
        name=findViewById(R.id.etName);
        UID=findViewById(R.id.etUID);
        section=findViewById(R.id.etSection);
        next.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                n=name.getText().toString();
                u=UID.getText().toString();
                s=section.getText().toString();
                Intent i = new
Intent(getApplicationContext(),MainActivity2.class);
                i.putExtra("Students_Name",n);
                i.putExtra("UID",u);
                i.putExtra("Section",s);
                startActivity(i);
            }
        });
    }
}
```

### acticity\_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
```



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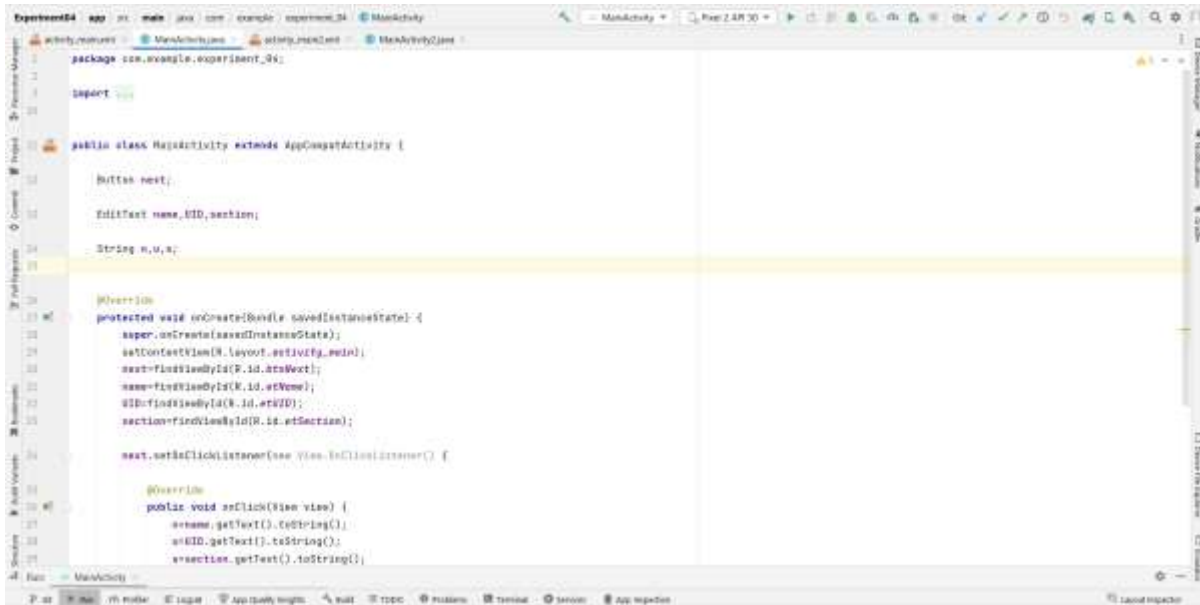
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```
android:layout_height="match_parent"
tools:context=".MainActivity">
<LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="411dp"
    android:layout_height="191dp"
    android:gravity="center"
    android:orientation="vertical"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="1dp">
    <TextView
        android:id="@+id/etDetails"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="0dp"
        android:layout_marginBottom="10dp"
        android:text="Enter Students Details: "
        android:textColor="#000000"
        android:textSize="24sp" />
    <EditText
        android:id="@+id/etName"
        android:layout_width="match_parent"
        android:layout_height="48dp"
        android:ems="10"
        android:hint="Enter Your Name"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/etUID"
        android:layout_width="match_parent"
        android:layout_height="48dp"
        android:ems="10"
        android:hint="Enter Your UID"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/etSection"
        android:layout_width="match_parent"
        android:layout_height="48dp"
        android:ems="10"
        android:hint="Enter Your Section"
        android:inputType="textPersonName" />
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="36dp"
    android:gravity="center"
    android:orientation="vertical"
    app:layout_constraintTop_toBottomOf="@+id/linearLayout"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="-16dp">
    <Button
        android:id="@+id/btnNext"
```

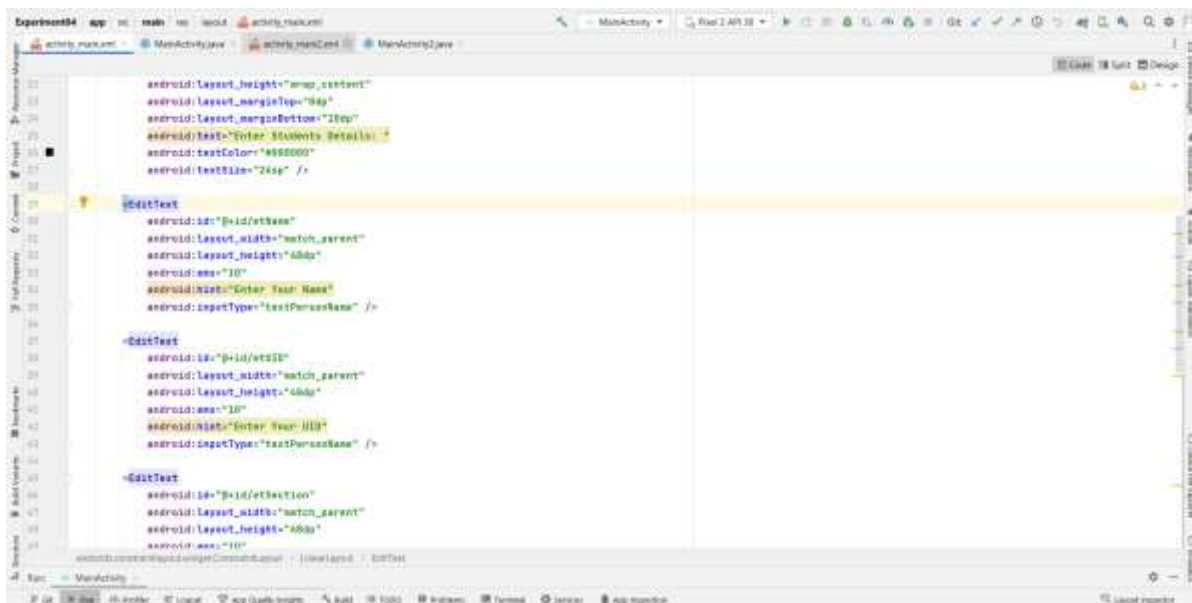
```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Click To Next"
        android:visibility="visible" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>

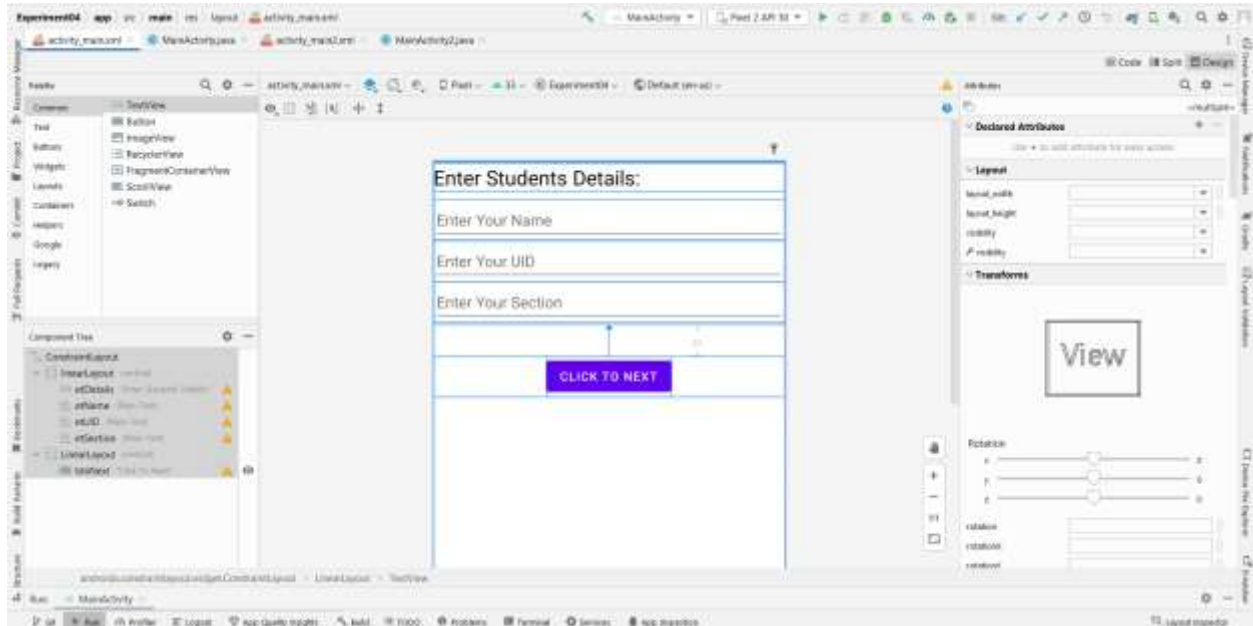
```



### MainActivity.java file screenshot



activity\_main.xml file screenshot



activity\_main.xml file (design format) screenshot

## Code (for 2nd activity):

### MainActivity2.java:

```
package com.example.experiment_04;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity2 extends AppCompatActivity {
    Button prev;
    TextView displayName, displayUID, displaySection;
    Intent n,u,s;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        prev=findViewById(R.id.btnPrev);

        displayName=findViewById(R.id.dName);
        n=getIntent();
        String receiveName = n.getStringExtra("Students_Name");
```



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```
        displayName.setText(receiveName);

Toast.makeText(getApplicationContext(), "Value"+receiveName, Toast.LENGTH
_LONG).show();

        displayUID=findViewById(R.id.dUID);
        u=getIntent();
        String receiveUID = u.getStringExtra("UID");
        displayUID.setText(receiveUID);

Toast.makeText(getApplicationContext(), "Value"+receiveUID, Toast.LENGTH
_LONG).show();

        displaySection=findViewById(R.id.dSection);
        s=getIntent();
        String receiveSection = s.getStringExtra("Section");
        displaySection.setText(receiveSection);

Toast.makeText(getApplicationContext(), "Value"+receiveSection, Toast.LE
NGTH_LONG).show();

        prev.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i = new
Intent(getApplicationContext(), MainActivity.class);
                startActivity(i);
            }
        });
    }
}
```

## activity\_main2.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity2">

    <LinearLayout
        android:id="@+id/linearLayout1"
        android:layout_width="198dp"
        android:layout_height="102dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="24dp"
        android:layout_marginBottom="60dp"
        android:gravity="right">
```



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```
        android:orientation="vertical"
        app:layout_constraintBottom_toTopOf="@+id/linearLayout2"
        app:layout_constraintEnd_toStartOf="@+id/linearLayout"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:ignore="MissingConstraints">
        <TextView
            android:id="@+id/viewName"
            android:layout_width="199dp"
            android:layout_height="wrap_content"
            android:text="Name : "
            android:textSize="24sp" />
        <TextView
            android:id="@+id/viewUID"
            android:layout_width="198dp"
            android:layout_height="wrap_content"
            android:text="UID : "
            android:textSize="24sp" />
        <TextView
            android:id="@+id/viewSection"
            android:layout_width="198dp"
            android:layout_height="wrap_content"
            android:text="Section : "
            android:textSize="24sp" />
    </LinearLayout>

    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="198dp"
        android:layout_height="102dp"
        android:layout_marginTop="24dp"
        android:layout_marginEnd="7dp"
        android:layout_marginBottom="60dp"
        android:gravity="left"
        android:orientation="vertical"
        app:layout_constraintBottom_toTopOf="@+id/linearLayout2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/linearLayout1"
        app:layout_constraintTop_toTopOf="parent"
        tools:ignore="MissingConstraints">
        <TextView
            android:id="@+id/dName"
            android:layout_width="199dp"
            android:layout_height="wrap_content"
            android:text="TextView"
            android:textSize="24sp" />
        <TextView
            android:id="@+id/dUID"
            android:layout_width="198dp"
            android:layout_height="wrap_content"
            android:text="TextView"
            android:textSize="24sp" />
        <TextView
```



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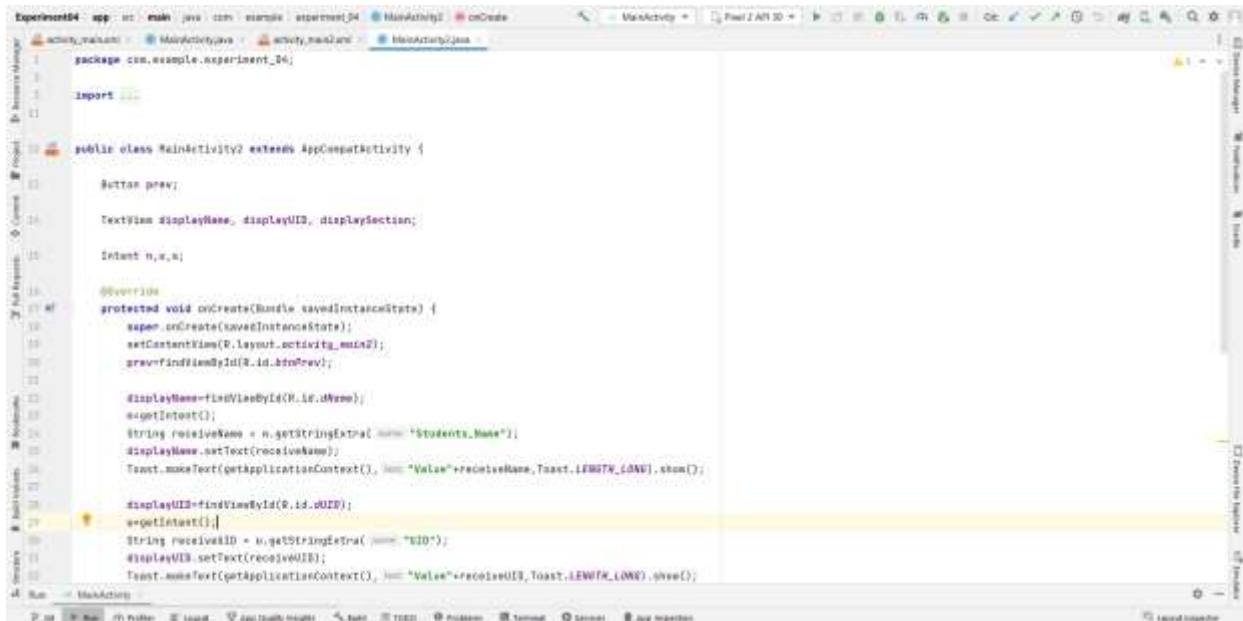
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```
        android:id="@+id/dSection"
        android:layout_width="198dp"
        android:layout_height="wrap_content"
        android:text="TextView"
        android:textSize="24sp" />
    </LinearLayout>

    <LinearLayout
        android:id="@+id/linearLayout2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="497dp"
        android:gravity="center"
        android:orientation="vertical"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        tools:ignore="MissingConstraints">

        <Button
            android:id="@+id/btnPrev"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Click To Go Back"
            android:visibility="visible" />

    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```



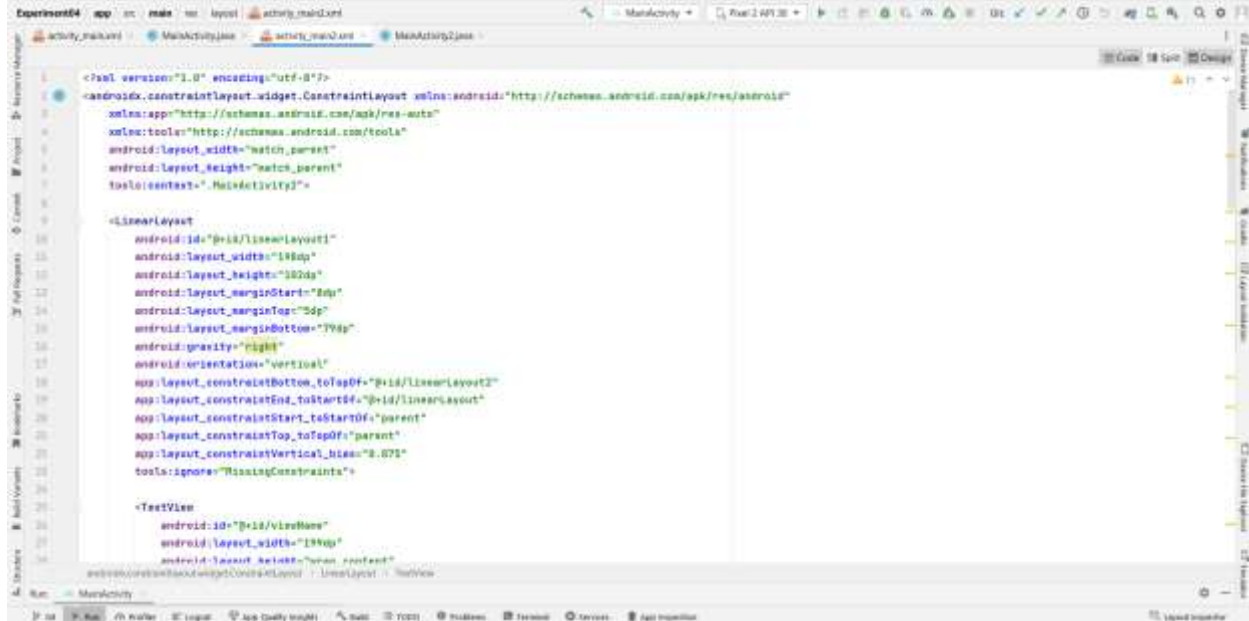
MainActivity2.java file screenshot



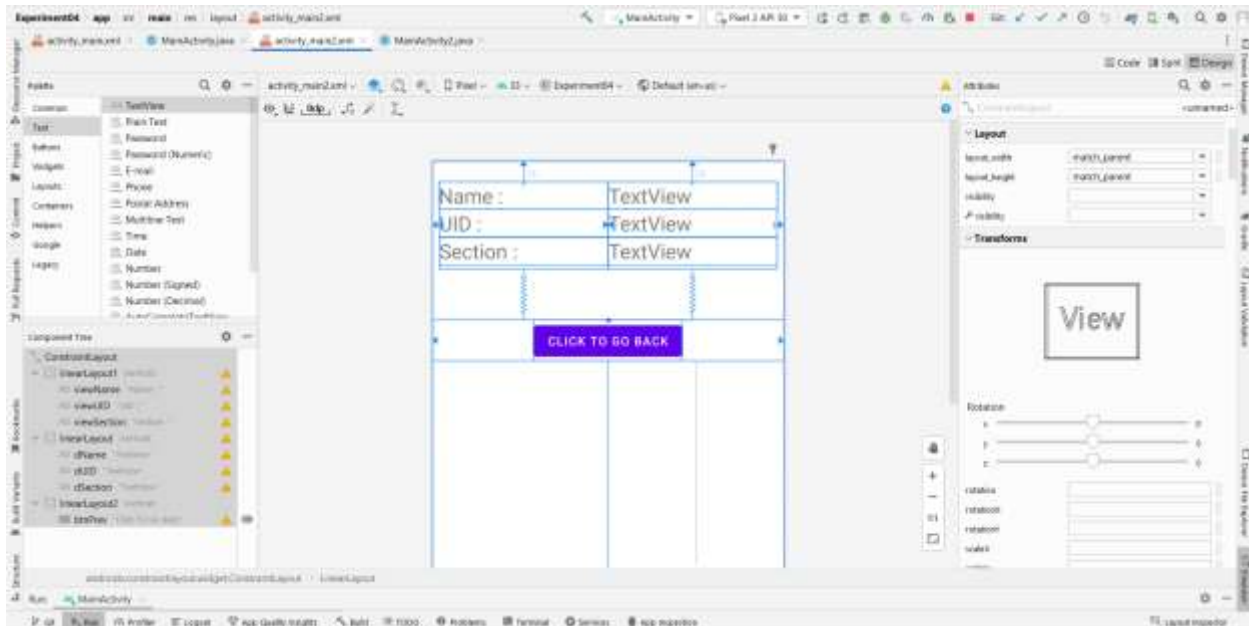


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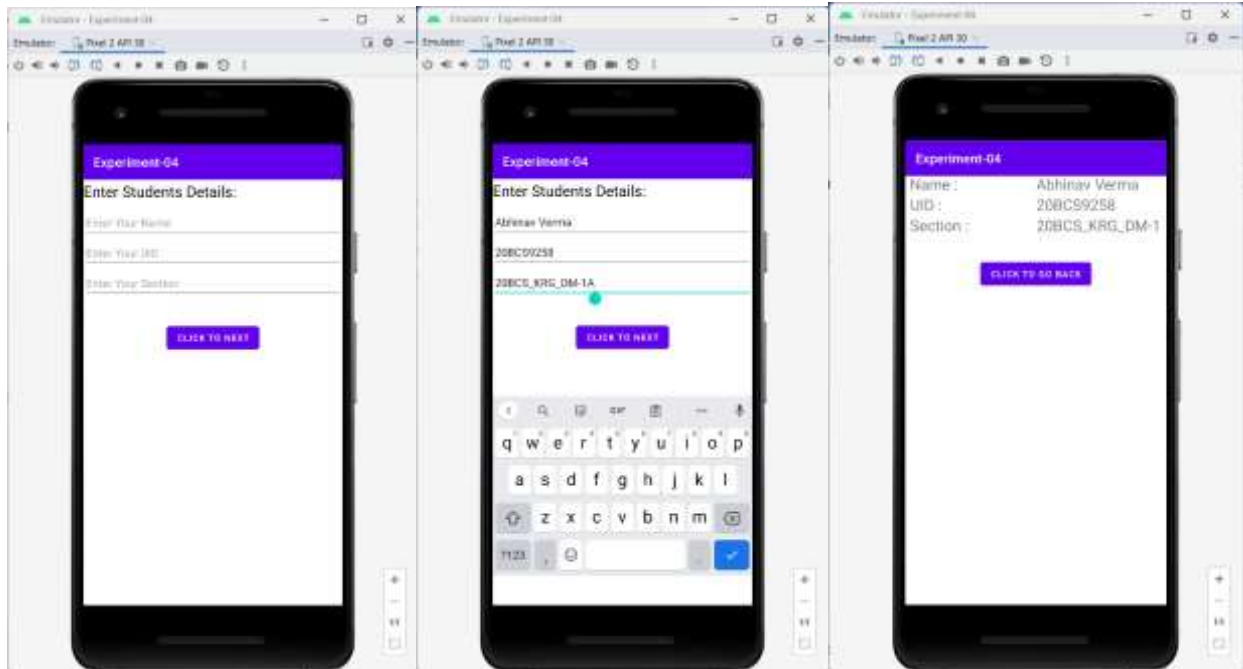


activity\_main2.xml file screenshot



activity\_main2.xml file (design format) screenshot

**Step 3:** Now, if we run the application, it will show as below and on filling up the entry and on clicking button we will pass our values to next activity as shown in third screenshot, it will display the details entered in previous activity:



As we can see from above screenshots, by using Intent and one button, we are passing values from one activity to another.

### Learning Outcomes:

1. Learned how to add intents in our application.
2. Learned to switch between two activities.
3. Learned to add buttons and textview, edittext.
4. Learned more about Android Studio and its components.