

Experiment -2.1

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Branch: CSE **Section/Group:** 20BCS_KRG_DM-G1 **Semester:** 06 **Date of Performance:** 17/03/2023

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.

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</pre>
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=".MainActivity">
<LinearLayout</pre>
    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</pre>
    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"
```

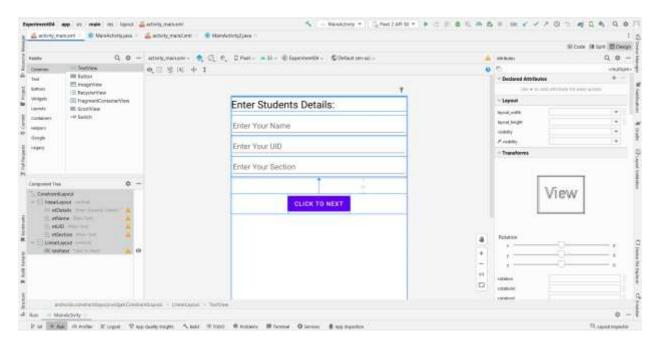
```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Click To Next"
android:visibility="visible" />
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

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MainActivity.java file screenshot

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```

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");
```

```
displayName.setText(receiveName);
        Toast.makeText (getApplicationContext(), "Value"+receiveName, Toast.LENGT
       H 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);
                });
            }
        }
      acticity main2.xml:
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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</pre>
        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</pre>
    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
```

```
android:id="@+id/dSection"
            android:layout width="198dp"
            android: layout height="wrap content"
            android: text="TextView"
            android:textSize="24sp" />
    </LinearLayout>
    <LinearLayout</pre>
        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>
```

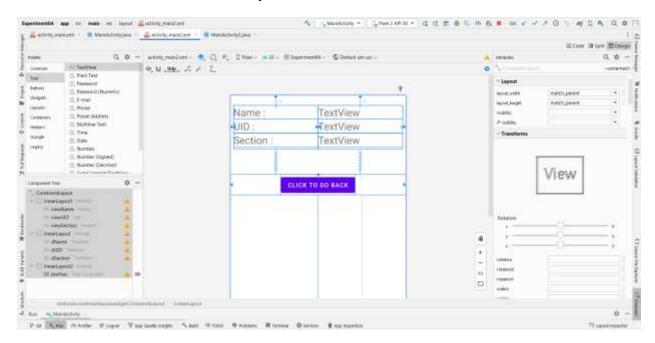
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       package com.example.experiment_04;
🎚 🗆 🚄 - public class MainActivity2 extends AppComputActivity (
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         Setton prev;
8 16
        TextViam displayName, displayNID, displaySection;
4 111
         fetunt n.w.m;
        protected wold onCreate(Randle savedinctescalitate) {
             *sper.onCreate(saveEInstanceState);
             setContentYims(P.layout.pctivity_mmin2);
            gravefind@leadyId(%.id.btoPrev);
            #ImplayMans-firsVisoById(R.is.dWase);
             String receiveSame = n.getStringExtra( --- "Students_Name");
           displayMass.setText(receiveNass)
             Tourt.makeText(getApplicationContext(), | "Value"+receiveMane,Tourt.idWSTW_idNU].show();
       String receivedID - w.getStringfetra( -- "UID");
1000
             #ImpleyVIB setText(receiveVIB);
             Teast.momefurt(gatApplicationContext(), |== "Walse"+receiseUES, Toast.LEWEF#_LOWE).shrue();
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MainActivity2.java file screenshot

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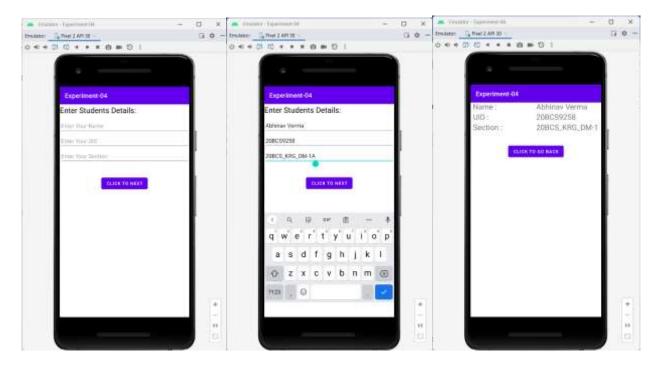
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activity_main2.xml file screenshot



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.