Experiment No-4

Aim:- Write a program to send user from one application to another

Procedure:-

Step 1: Firstly create a new Android Application. This will create an XML file and a Java File. Please refer the pre-requisites to learn more about this step.

Step 2: Open “activity_first_activity.xml” file and add the following widgets in a Relative Layout:

- A EditText to Input the message
- A Button to send the data

Also, Assign the ID to each component along with other attributes as shown in the image and the code below. The assigned ID on a component helps that component to be easily found and used in the Java files.
Syntax:
android:id="@+id/id_name"

Here the given IDs are as follows:

- Send Button: send_button_id
- input EditText: send_text_id

This will make the UI of the Application.

Step 3: Now, after the UI, this step will create the Backend of the App. For this, open the “first_activity.java” file and instantiate the components made in the XML file (EditText, send Button) using findViewById() method. This method binds the created object to the UI Components with the help of the assigned ID.

General Syntax:
ComponentType object =
(ComponentType)findViewById(R.id.IdOfTheComponent);

Syntax for components used:
Button send_button=
(Button)findViewById(R.id.send_button_id);
send_text = (EditText) findViewById(R.id.send_text_id);

Step 4: This step involves setting up the operations on the sending and received the data. These operations are as follows:
1. first Add the listener on the send button and this button will send the data. This is done as follows:

send_button.setOnClickListener(new View.OnClickListener()
{}

after clicked this button following operation will be performed.

2. Now create the String type variable for store the value of EditText which is input by user. Get the value and convert it to string. This is done as follows:

String str = send_text.getText().toString();

3. Now create the Intent object First_activity.java class to Second_activity class. This is done as follows:

Intent intent = new Intent(getApplicationContext(),
Second_activity.class);

where getApplicationContext() will fetch the current activity.

4. Put the value in putExtra method in key value pair then start the activity. This is done as follows:

intent.putExtra(“message_key”, str);
startActivity(intent);

where “str” is the string value and the key is “message_key” this key will use to get the str value

Step 5: Now we have to create a Second_Activity to receive the data.
The steps to create the second activity is as follows:
android project > File > new > Activity > Empty Activity

Step 6: Now open your second xml file.
Add TextView for display the receive messages. assign ID to Textview. Second Activity is shown below:

Step 7: Now, open up your second activity java file and perform the following operation.
1. Define the TextView variable, use findViewById() to get the TextView as shown above.

receiver_msg = (TextView)
findViewById(R.id.received_value_id);

2. Now In second_activity.java file create the object of getTntent to receive the value in String type variable by getStringExtra method using message_key.
Intent intent = getIntent();
String str = intent.getStringExtra(“message_key”);

3. The received value set in the TextView object of the second activity xml file

receiver_msg.setText(str);

Step 8: Now Run the app and operate as follows:

- When the app is opened, it displays a “Input” EditText. Enter the value for the send.
- click the send button then message will display on second screen.

Code:-

Filename: MainAcivity.java

```
package com.example.myfirstapp;

import android.os.Bundle;

import
com.google.android.material.floatingactionbutton.FloatingActi
onButton;
import com.google.android.material.snackbar.Snackbar;

import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;

import android.view.View;
```

```
import android.view.Menu;
import android.view.MenuItem;


public class MainActivity<overiding> extends
AppCompatActivity {


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toolbar toolbar = findViewById(R.id.toolbar);
        setSupportActionBar(toolbar);


        FloatingActionButton fab = findViewById(R.id.fab);
        fab.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Snackbar.make(view, "Replace with your own action",
Snackbar.LENGTH_LONG)
                        .setAction("Action", null).show();
            }
```

```
        });
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
```

```
        }

        return super.onOptionsItemSelected(item);
    }
```

Filename: First_Activity.java

```
<?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=".FirstFragment">

    <TextView
        android:id="@+id/textview_first"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="NK Orchid Collage of Engineering and
Technology ,Solapur"
```

```
        android:textColor="@color/black"
        android:padding="30dp"
        app:layout_constraintBottom_toTopOf="@id/button_first"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button_first"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/next"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@id/textview_first" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Filename: activity_second_activity.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=".SecondFragment">

    <TextView
        android:id="@+id/textview_second"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

app:layout_constraintBottom_toTopOf="@id/button_second"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:text="Wel-come  "
        android:textColor="@color/black"
        android:textSize="30dp"/>
```

```
    <Button
        android:id="@+id/button_second"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/previous"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@id/textview_second
" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

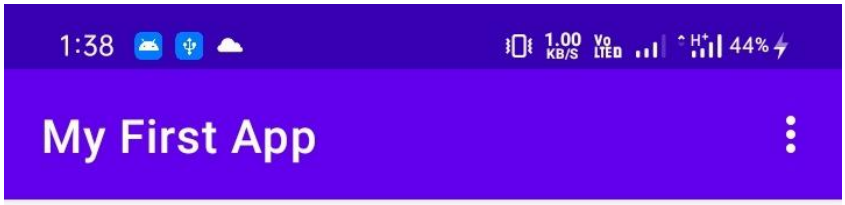
Filename:activity_second_activity.java

```
package com.example.myfirstapp;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
```

```
import android.view.ViewGroup;

import androidx.annotation.NonNull;
import androidx.fragment.app.Fragment;
import androidx.navigation.fragment.NavHostFragment;

public class SecondFragment extends Fragment {

    @Override
    public View onCreateView(
            LayoutInflater inflater, ViewGroup container,
            Bundle savedInstanceState
    ) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_second,
container, false);
    }

    public void onViewCreated(@NonNull View view, Bundle
savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);
```

```
view.findViewById(R.id.button_second).setOnClickListener(ne
w View.OnClickListener() {
        @Override
        public void onClick(View view) {

NavHostFragment.findNavController(SecondFragment.this)

.navigate(R.id.action_SecondFragment_to_FirstFragment);
        }
    });
  }
}
```

Output :-



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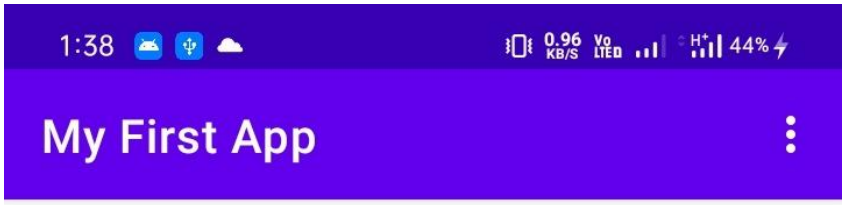
NEXT



Wel-come

PREVIOUS