Experiment 2.1

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Subject Code: 21CSH-355

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

2. Objective: To develop an Android application utilizing Intent mechanism to transition between activities via button click, facilitating data transfer of values from one activity to another seamlessly.

3. Input/Apparatus Used:

Input:

• Computer: Android Studio supports Windows, macOS, and Linux, so it's crucial to verify that your computer satisfies the minimum system requirements for your selected operating system.

• Internet Connection: A stable internet connection is essential for downloading both Android Studio and the required SDK components as part of the installation procedure.

Apparatus:

• Android Studio Installer: Download the Android Studio installer from the official Android Studio website **(https://developer.android.com/studio).** Choose the appropriate version for your operating system.

• Computer Mouse, Keyboard and Monitor/Display: Utilize a mouse and keyboard for engagement in the installation steps, adjusting configurations, and navigating within Android Studio. A monitor or display is necessary to observe the installation progress and, later on, for the development and testing of Android applications.

• Storage Space: Make sure there is available storage space on your computer to facilitate the installation of Android Studio and any extra SDK components that might be downloaded.

4. **Procedure**
I.Labmanual Intent Experiment:
Code:
activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/editTextName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_marginStart="16dp"
        android:layout_marginTop="16dp"
        android:layout_marginEnd="16dp"
        android:layout_marginBottom="16dp"
        android:hint="Enter Name" />
    <EditText
        android:id="@+id/editTextAge"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/editTextName"
        android:layout_marginStart="16dp"
        android:layout_marginTop="16dp"
        android:layout_marginEnd="16dp"
        android:layout_marginBottom="16dp"
        android:hint="Enter Age"
        android:inputType="number" />
    <Button
        android:id="@+id/buttonNext"
        android:layout_width="wrap_content"
        android:layout_height="71dp"
        android:layout_below="@id/editTextAge"
        android:layout_alignParentStart="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
```

```xml
      android:layout_marginStart="129dp"
      android:layout_marginTop="355dp"
      android:layout_marginEnd="162dp"
      android:layout_marginBottom="166dp"
      android:text="Next" />
</RelativeLayout>
```

activity_second.xml:
```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".SecondActivity">
   <TextView
      android:id="@+id/textViewName"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_alignParentTop="true"
      android:layout_marginStart="16dp"
      android:layout_marginTop="94dp"
      android:textSize="20sp" />
   <TextView
      android:id="@+id/textViewAge"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_below="@id/textViewName"
      android:layout_marginStart="16dp"
      android:layout_marginTop="186dp"
      android:layout_marginBottom="645dp"
      android:textSize="20sp" />
</RelativeLayout>
```

MainActivity.java:
```java
package com.example.intents;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
```

```java
import android.widget.EditText;
import android.util.Log;
public class MainActivity extends AppCompatActivity {
    private EditText editTextName;
    private EditText editTextAge;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editTextName = findViewById(R.id.editTextName);
        editTextAge = findViewById(R.id.editTextAge);
        Button buttonNext = findViewById(R.id.buttonNext);
        buttonNext.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Get values from EditText fields
                String name = editTextName.getText().toString();
                int age = Integer.parseInt(editTextAge.getText().toString());
                // Create Intent to start SecondActivity
                Intent intent = new Intent(MainActivity.this, SecondActivity.class);
                // Pass data to SecondActivity using Intent extras
                intent.putExtra("name", name);
                intent.putExtra("age", age);
                // Start SecondActivity
                startActivity(intent);
                Log.d("MainActivity", "Name sent: " + name);
                Log.d("MainActivity", "Age sent: " + age);
            }
        });
    }
}
```

SecondActivity.java:
```xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    style="@style/Widget.Widegets_1.AppWidget.Container"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:theme="@style/Theme.Widegets_1.AppWidgetContainer">
    <TextView
        android:id="@+id/appwidget_text"
```
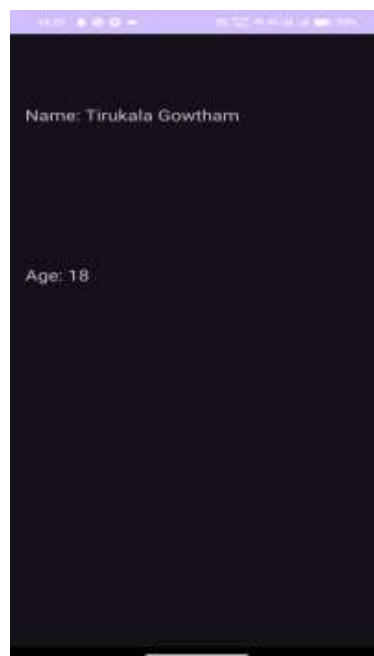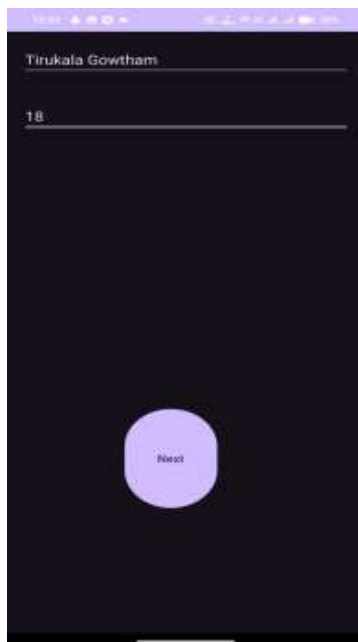
```
        style="@style/Widget.Widegets_1.AppWidget.InnerView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"
        android:layout_margin="8dp"
        android:contentDescription="@string/appwidget_text"
        android:text="@string/appwidget_text"
        android:textSize="24sp"
        android:textStyle="bold|italic" />
    <TextView
        android:id="@+id/textViewExample"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, World!"
        android:textSize="18sp"
        android:textColor="#FBF5F5" />
</RelativeLayout>
```

Output:

III. Music App:
Code:
activity_main.xml:

```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=".MainActivity">
    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:scaleType="centerCrop"
        android:src="@drawable/back"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="-37dp" />
    <TextView
        android:id="@+id/musicPlayerHeading"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="200dp"
        android:text="Music Player"
        android:textColor="#090000"
        android:textSize="40sp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/button"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:background="#0C0C0C"
        android:textColor="#FFFFFF"
        android:layout_marginTop="80dp"
        android:layout_marginBottom="12dp"
        android:text="Play"
```

```xml
        app:layout_constraintBottom_toTopOf="@+id/button2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="@+id/imageView"
        app:layout_constraintTop_toBottomOf="@+id/musicPlayerHeading" />
    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Pause"
        app:layout_constraintBottom_toTopOf="@+id/button3"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />
    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Resume"
        app:layout_constraintBottom_toTopOf="@+id/button4"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="parent" />
    <Button
        android:id="@+id/button4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Skip"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="@+id/imageView"
        app:layout_constraintVertical_bias="0.765" />
    <SeekBar
        android:id="@+id/seekBar"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        app:layout_constraintBottom_toBottomOf="@+id/imageView"
        app:layout_constraintEnd_toEndOf="parent"
```

```
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/button4"
        app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.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=".MainActivity">
    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:scaleType="centerCrop"
        android:src="@drawable/back"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="-37dp" />
    <TextView
        android:id="@+id/musicPlayerHeading"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="200dp"
        android:text="Music Player"
        android:textColor="#090000"
        android:textSize="40sp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/button"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:background="#0C0C0C"
```
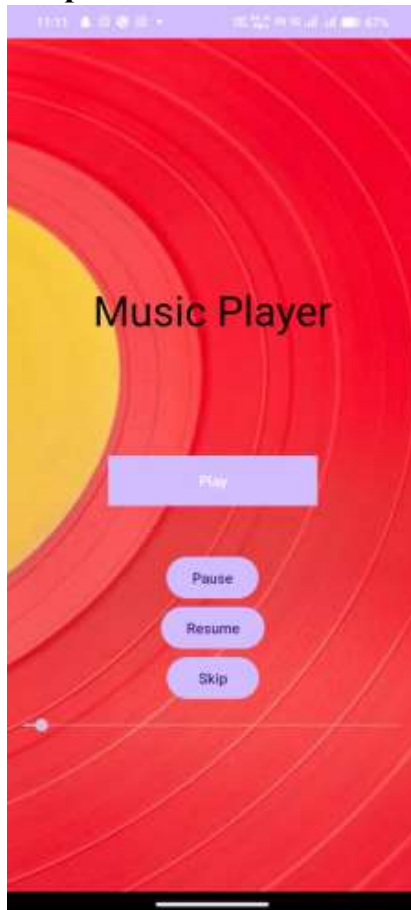
```
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        app:layout_constraintBottom_toBottomOf="@+id/imageView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/button4"
        app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output:

5. Observations/Outcome:

• I have learned how to create an intent using android studio.
• I have learned how to link two apps.
• I have learned how to link two activites.
• I have learned how to use seek bar.