# Practical No. 3

## Title: Android program based on Intents

### Aim: Create an application to demonstrate use of Intent

### Introduction

**Android Intent** is the *message* that is passed between components such as activities, content providers, broadcast receivers, services etc.

It is generally used with startActivity() method to invoke activity, broadcast receivers etc.

The **dictionary meaning** of intent is *intention or purpose*. So, it can be described as the intention to do action.

The LabeledIntent is the subclass of android.content.Intent class.

### Android intents are mainly used to:

- o   Start the service
- o   Launch an activity
- o   Display a web page
- o   Display a list of contacts
- o   Broadcast a message
- o   Dial a phone call etc.

### Types of Android Intents

There are two types of intents in android: implicit and explicit.

### 1) Implicit Intent

**Implicit Intent** doesn't specifiy the component. In such case, intent provides information of available components provided by the system that is to be invoked.

For example, you may write the following code to view the webpage.

1. Intent intent=**new** Intent(Intent.ACTION_VIEW);
2. intent.setData(Uri.parse("http://www.javatpoint.com"));
3. startActivity(intent);

## 2) Explicit Intent

**Explicit Intent** specifies the component. In such case, intent provides the external class to be invoked.

1. Intent i = **new** Intent(getApplicationContext(), ActivityTwo.**class**);
2. startActivity(i);

**Exercise - Create android application to demonstrate Intent**

**Implementation:**
**Program:**

**MainActivity.java**

```
package com.example.btndashboard;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {
    private Button button;
    private Button button2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button=findViewById(R.id.button);
```

```
        button2=findViewById(R.id.button2);

        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                click_for_other();
            }
        });

        button2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                second();
            }
        });
    }
    public void click_for_other()
    {
        Intent intent=new Intent(MainActivity.this,Activity2.class);
        startActivity(intent);
    }
    public void second()
    {
        Intent intent2=new Intent(MainActivity.this,Activity3.class);
            startActivity(intent2);
    }}
```

**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">

    <Button
        android:id="@+id/button"
        android:layout_width="123dp"
        android:layout_height="49dp"
        android:text="First"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.506"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
```

```
        app:layout_constraintVertical_bias="0.444" />
    <Button
        android:id="@+id/button2"
        android:layout_width="119dp"
        android:layout_height="48dp"
        android:layout_marginTop="68dp"
        android:text="second"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/button"
        app:layout_constraintVertical_bias="0.011" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

**Output:**