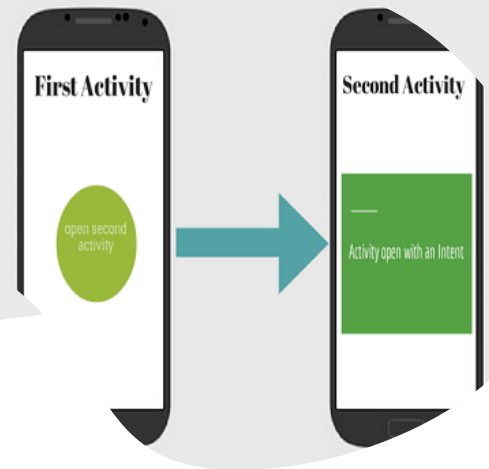


February 23, 2022

INTRODUCTION TO INTENT IN ANDROID



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DURATION 9min

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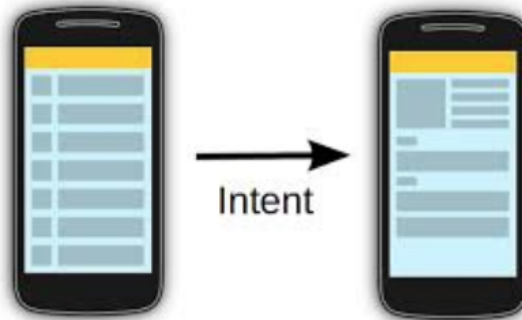
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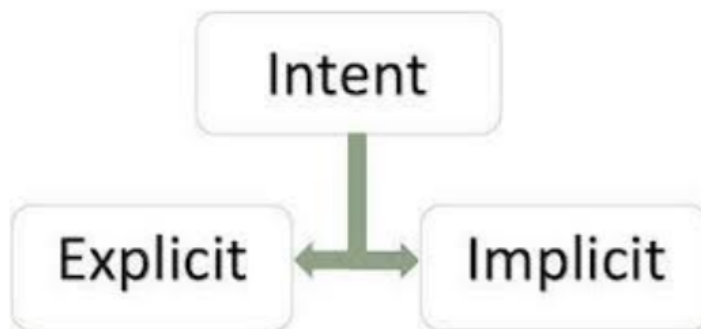
WHAT IS AN INTENT?

An intent is a messaging object used to request any action from another app component. Intents facilitate communication between different components in several ways. The intent is used to launch an activity, start the services, broadcast receivers, display a web page, dial a phone call, send messages from one activity to another activity, and so on.



TYPE OF INTENT

Intents are of two types:



1. Explicit intent
2. Implicit intent

EXPLICIT INTENT

Explicit intents are communicated between two activities inside the same application. We can use explicit intents when we need to move from one activity to another activity.

Example:- when a user wants to start a service to download a file or when a new activity gets started in response to a user action.

```

1 //Explicit Intent
2 Intent send = new Intent(FirstActivitiy.this,
3   SecondActivity.class);
4 //Starts TargetActivity
5 startActivity(send);

```

Example:-

avtivity_main.xml

```

1  <?xml version="1.0" encoding="utf-8"?>
2  <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
3      xmlns:tools="http://schemas.android.com/tools"
4      android:layout_width="match_parent"
5      android:layout_height="match_parent"
6      tools:context="com.example.application.myapplication.MainActivity">
7
8      <TextView
9          android:id="@+id/textView"
10         android:layout_width="wrap_content"
11         android:layout_height="wrap_content"
12         android:layout_centerHorizontal="true"
13         android:layout_centerVertical="true"
14         android:text="This is First Activity" />
15 <!--open activity2-->
16     <Button
17         android:id="@+id/button"
18         android:layout_width="wrap_content"
19         android:layout_height="wrap_content"
20         android:layout_below="@id/textView"
21         android:layout_centerHorizontal="true"
22         android:text="GO TO OTHER ACTIVITY" />
23 </RelativeLayout>

```

activity_2.xml

```

1  <?xml version="1.0" encoding="utf-8"?>
2  <!--activity_2-->
3  <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
4      xmlns:tools="http://schemas.android.com/tools"
5      android:layout_width="match_parent"
6      android:layout_height="match_parent"
7      tools:context="com.example.application.myapplication.Activity2">
8  <!--new activity start and Activity 2-->
9      <TextView
10         android:id="@+id/textView"
11         android:layout_width="wrap_content"
12         android:layout_height="wrap_content"
13         android:layout_centerHorizontal="true"
14         android:layout_centerVertical="true"
15         android:text="This is Second Activity " />
16     <Button
17         android:id="@+id/button"
18         android:layout_width="wrap_content"
19         android:layout_height="wrap_content"
20         android:layout_below="@id/textView"
21         android:layout_centerHorizontal="true"
22         android:text="open activity 2" />

```

```
23
24 </RelativeLayout>
```

MainActivity.java

```
1  package com.example.application.myapplication;
2  import android.content.Intent;
3  import android.support.v7.app.AppCompatActivity;
4  import android.os.Bundle;
5  import android.view.View;
6  import android.widget.Button;
7
8  public class MainActivity extends AppCompatActivity {
9      private Button button;
10
11     @Override
12     protected void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         button = (Button) findViewById(R.id.button);
17         button.setOnClickListener(new View.OnClickListener() {
18             @Override
19             public void onClick(View v) {
20                 openActivity2();
21             }
22         });
23     }
24
25     public void openActivity2() {
26         //Explicit Intent
27         Intent intent = new Intent(this, Activity2.class);
28         startActivity(intent);
29     }
30 }
```

Activity2.java

```
1  package com.example.application.myapplication;
2  import android.support.v7.app.AppCompatActivity;
3  import android.os.Bundle;
4
5  public class Activity2 extends AppCompatActivity {
6      private Button button;
7      @Override
8      protected void onCreate(Bundle savedInstanceState) {
9          super.onCreate(savedInstanceState);
10         setContentView(R.layout.activity_2);
11         button = (Button) findViewById(R.id.button);
12         button.setOnClickListener(new View.OnClickListener() {
13             @Override
14             public void onClick(View v) {
15                 // Back to the MainActivity
16                 openActivity1();
17             }
18         });
19     }
20     public void openActivity1() {
21         //Explicit Intent
22         Intent intent = new Intent(this, MainActivity.class);
23         startActivity(intent);
```

```

24 }
25 }

```

Output:-



IMPLICIT INTENT

Implicit intent is communicated between two activities of an application. One thing to note here is we should not name a specific component. In place of that we can declare a general action to perform which allows a component from another app to handle it.

Example:- To show the user a location on a map, we can use an implicit intent.

```

1 //Implicit intent
2 Intent intent = new Intent();
3
4 intent.setAction(android.content.Intent.ACTION_VIEW);
5 intent.setData(Contract.Contacts.CONTENT_URL);
6
7 startActivity(intent);

```

Example:activity_main.xml

```

1 < ? xml version = "1.0"
2 encoding = "utf-8" ? >
3 <
4 !--activity_main-- >
5 <
6 RelativeLayout xmlns : android = "http://schemas.android.com/apk/res/andro:
7 <
8 !--default layout structure-- >
9 xmlns: tools = "http://schemas.android.com/tools" <!--tools-- >
10 xmlns: app = "http://schemas.android.com/apk/res-auto" <!--app-- >
11 tools: context = "com.example.implicitintent.MainActivity"
12 android: layout_width = "match_parent" <!--for width-- >
13 android: layout_height = "match_parent" <!--for height-- >
14 <
15 !--input field for writing website name-- >
16 <
17 EditText <
18 !--for input field-- >
19 android: id = "@+id/editText" <!--edittext id name-- >
20 android: layout_width = "wrap_content" <!--for width-- >
21 android: layout_height = "wrap_content" <!--for height-- > android: layout
22 android: layout_marginStart = "7dp" <!--margin at the start-- >
23 android: layout_marginTop = "70dp" <!--margin at the top-- >
24 android: ems = "9" <
25 !--for alignment-- >
26 android: layout_alignParentTop = "true"

```

```

27 android: layout_centerHorizontal = "true" /
28 >
29 <
30 !--Open webpage-- >
31 <
32 Button
33 android: id = "@+id/button" < !--button id name-- >
34 android: layout_width = "wrap_content" < !--for width-- >
35 android: layout_height = "wrap_content" < !--for height-- >
36
37 <
38 !--button below editText-- >
39 android: layout_below = "id/editText"
40 android: layout_centerHorizontal = "true"
41 android: layout_marginTop = "172dp"
42 android: layout_marginRight = "8dp"
43 android: layout_marginLeft = "156dp" <
44 !--display text-- >
45 android: text = "Visit" /
46 >
47 <
48 /RelativeLayout>

```

MainActivity.java

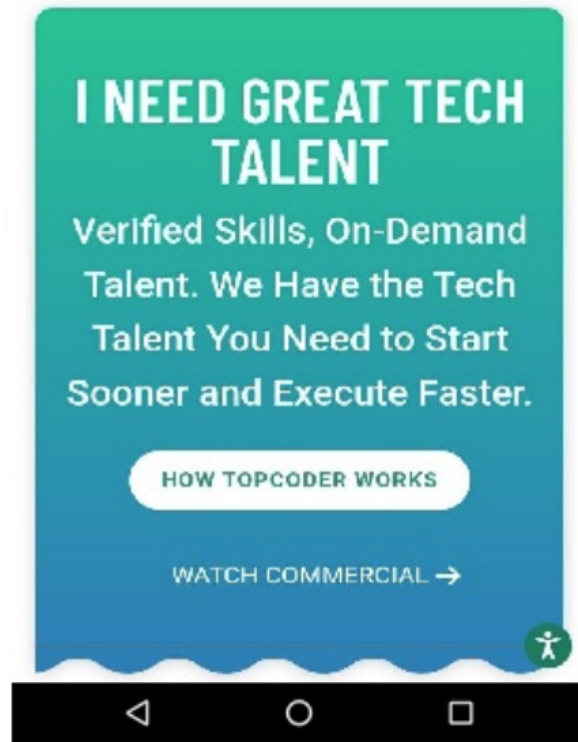
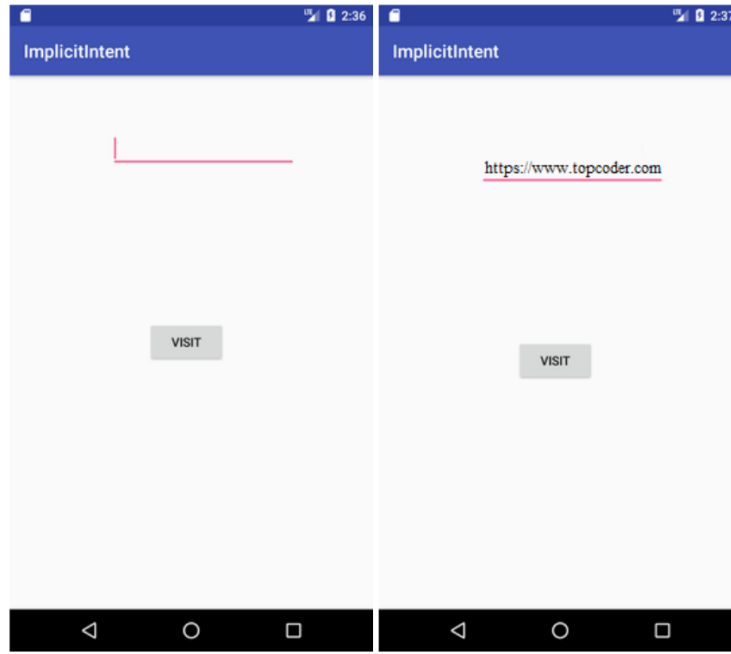
```

1 package com.example.implicitintent; //package name
2
3 import android.content.Intent;
4 import android.net.Uri;
5 import android.support.v7.app.AppCompatActivity;
6 import android.os.Bundle;
7 import android.view.View;
8 import android.widget.Button;
9 import android.widget.EditText;
10
11 public class MainActivity extends AppCompatActivity {
12
13     Button button; //button
14     EditText editText; //inputtext
15
16     @Override
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         setContentView(R.layout.activity_main);
20
21         button = findViewById(R.id.button);
22         editText = findViewById(R.id.editText);
23         button.setOnClickListener(new View.OnClickListener() { //add the listener
24
25             @Override
26             public void onClick(View view) {
27                 //string type variable
28                 String url = editText.getText()
29                     .toString(); //for storing edittextvalue
30
31                 //Intent object and open the webpage
32                 Intent intent = new Intent(Intent.ACTION_VIEW, Uri.parse(url));
33
34                 startActivity(intent); //call a webpage
35             }
36         });

```

```
37 }  
38 }
```

Output:-



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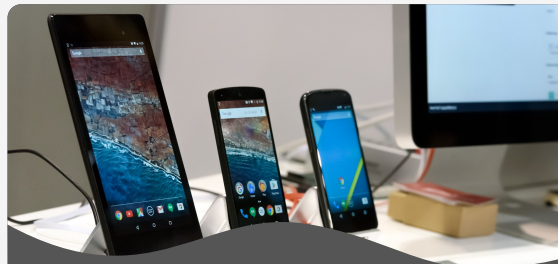
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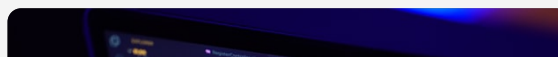
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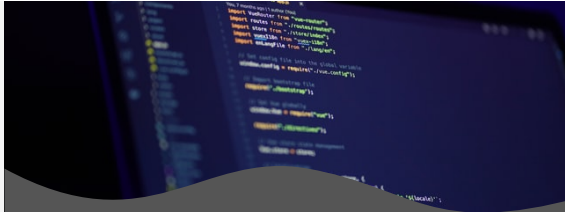


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