

Implicit Intent

Objective: The objective of this Android program is to demonstrate the use of **implicit intents**. Specifically, the program allows a user to open a web browser by clicking a button. The application uses an implicit intent to request an action (`Intent.ACTION_VIEW`) without specifying the component (activity) that should handle the intent. Instead, it allows the Android system to choose an appropriate application (e.g., a browser) to handle the request, based on the type of data provided (a URL).

XML Code:

```
<?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:id="@+id/main"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">

<EditText
    android:id="@+id/editText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Url"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
```

```

        app:layout_constraintVertical_bias="0.384" />

<Button
    android:id="@+id/btn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="search"
    android:text="Search"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText"
    app:layout_constraintVertical_bias="0.221" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Saksham Gupta"
    android:textSize="25sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.551"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btn"
    app:layout_constraintVertical_bias="0.899" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Java Code:

```

package com.example.implicit;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

```

```
import android.widget.EditText;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        EditText editText;
```

```
        Button button;
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        button = findViewById(R.id.btn);
```

```
        editText = (EditText) findViewById(R.id.editText);
```

```
        button.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
                String url=editText.getText().toString();
```

```
                Intent intent = new Intent(Intent.ACTION_VIEW, Uri.parse(url));
```

```
                startActivity(intent);
```

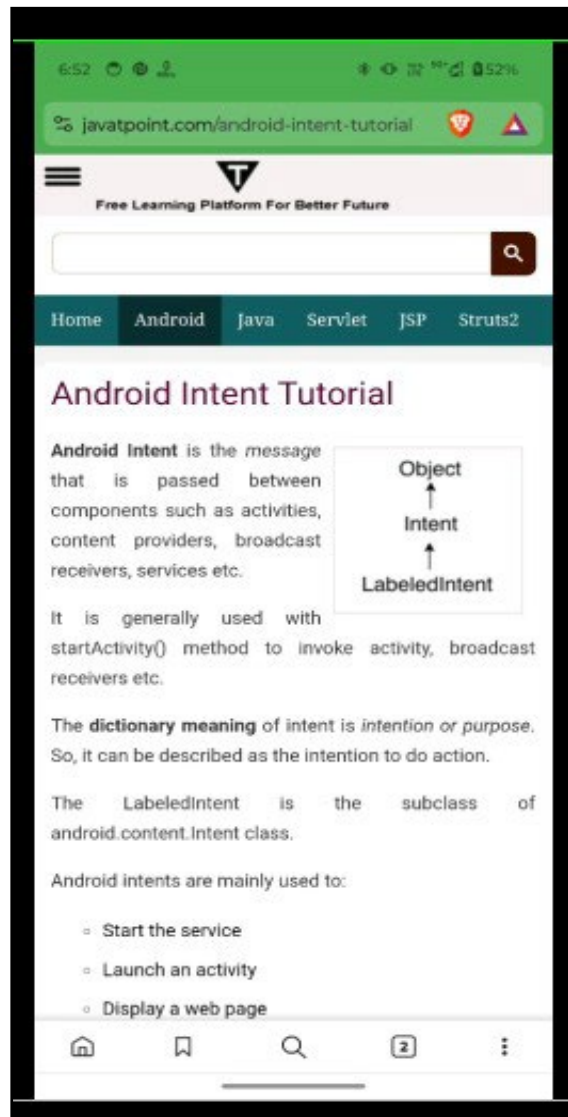
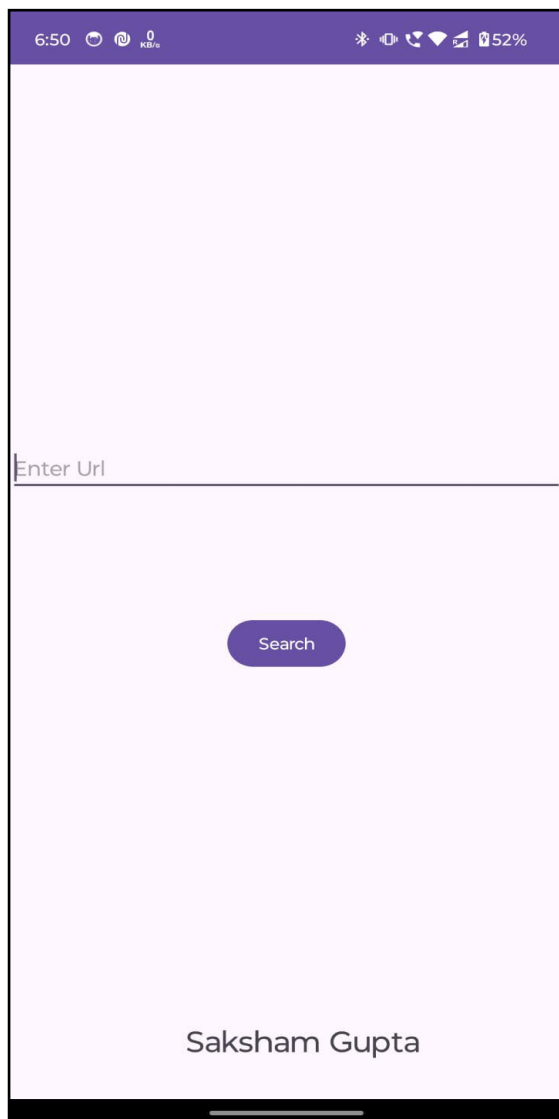
```
            }
```

```
        });
```

```
    }
```

```
}
```

Output:



Explicit Intent

Objective: The objective of this Android program is to demonstrate the use of **explicit intents** to navigate between activities within the same application. Explicit intents allow developers to explicitly specify the target activity to be started by providing its class name.

XML Code(activity_main.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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Welcome to GFG Home Screen"
        android:textAlignment="center"
        android:textSize="28sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.359" />

    <Button
        android:id="@+id/btn1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
android:onClick="newsScreen"
android:text="Go to News Screen"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/editText"
app:layout_constraintVertical_bias="0.212" />
```

<TextView

```
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Saksham Gupta"
android:textSize="25sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.568"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/btn1"
app:layout_constraintVertical_bias="0.802" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

Java Code(MainActivity.java):

```
package com.example.explicit;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
```

```

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void newsScreen(View view){
        Intent i = new Intent(getApplicationContext(), MainActivity2.class);
        startActivity(i);

        Toast.makeText(this, "Activity two called", Toast.LENGTH_SHORT).show();
    }
}

```

XML Code(activity_main2.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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity2">

    <TextView
        android:id="@+id/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Welcome to GFG News Screen"
        android:textAlignment="center"
        android:textSize="28sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"

```

```
app:layout_constraintHorizontal_bias="0.0"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.297" />
```

<Button

```
android:id="@+id/btn2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="homeScreen"
android:text="Go to Home Screen"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/editText"
app:layout_constraintVertical_bias="0.241" />
```

<TextView

```
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Saksham Gupta"
android:textSize="25sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.512"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/btn2"
app:layout_constraintVertical_bias="0.899" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

Java Code(MainActivity2.java):

```
package com.example.explicit;
import android.content.Intent;
import android.os.Bundle;
```



```
import android.view.View;
import android.widget.Toast;
```

```
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
```

```
public class MainActivity2 extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
```

```
    }
```

```
    public void homeScreen(View view) {
        Intent i = new Intent(getApplicationContext(), MainActivity.class);
        startActivity(i);
        Toast.makeText(this, "Activity one called", Toast.LENGTH_SHORT).show();
    }
```

```
}
```

Output:

