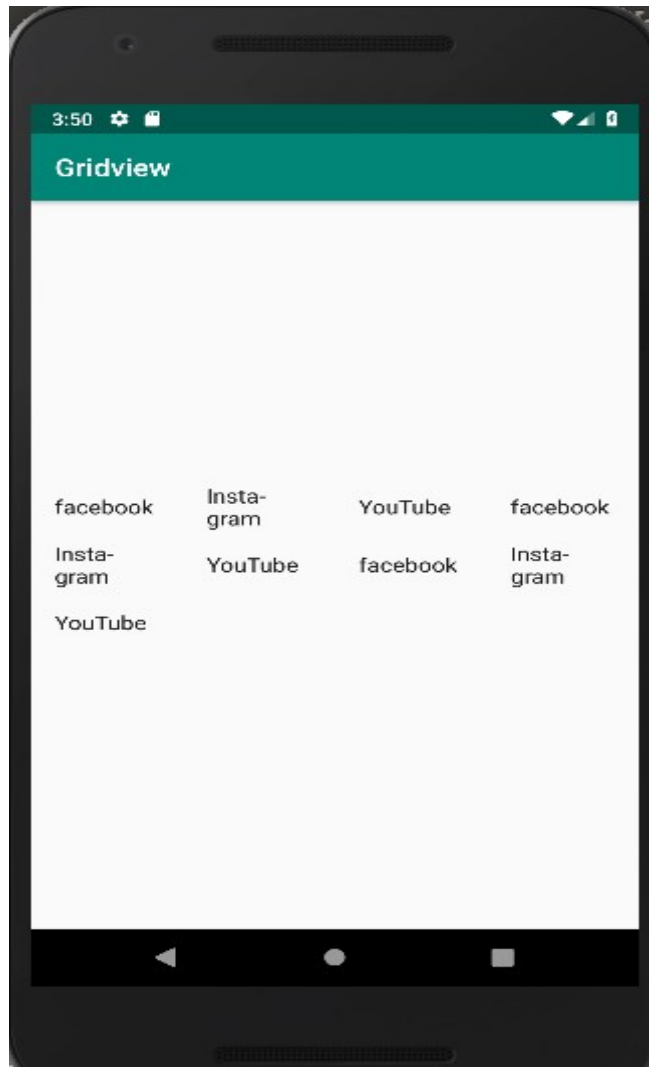## Grid View

```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <GridView
        android:id="@+id/gv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:columnWidth="100dp"
        android:minHeight="100dp"
        android:numColumns="auto_fit"
        android:stretchMode="columnWidth"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Java code

```java
package com.example.sjcet.gridview;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.GridView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity implements
AdapterView.OnItemClickListener {
    GridView gridView;
    static final String[] gridviewvalue={
            "facebook","Instagram","YouTube",
            "facebook","Instagram","YouTube",
            "facebook","Instagram","YouTube"
    };
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        gridView=findViewById(R.id.gv);
        ArrayAdapter adapter = new
ArrayAdapter(this,android.R.layout.simple_list_item_1,gridviewvalue);
        gridView.setAdapter(adapter);
        gridView.setOnItemClickListener(this);
    }
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
        String itemname=gridView.getItemAtPosition(i).toString();
        Toast.makeText(this,itemname,Toast.LENGTH_SHORT).show();
    }
}
```

Output

Activity life cycle
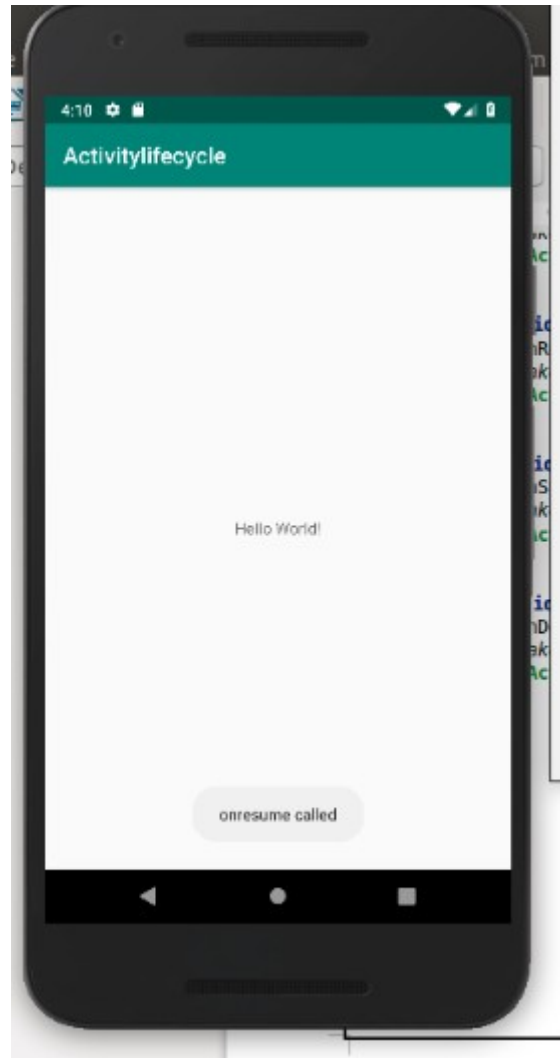
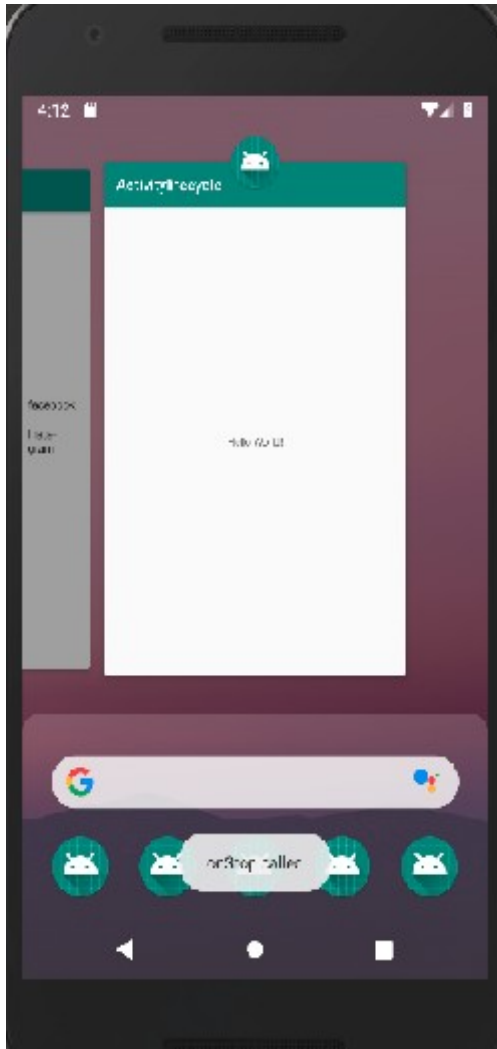### xml code

```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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="example.javatpoint.com.activitylifecycle.MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Java code

```java
package com.example.sjcet.activitylifecycle;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this,"OnCreate called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","oncreate called");
    }
    @Override
    protected void onStart() {
        super.onStart();
        Toast.makeText(this,"onStart called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onStart called");
    }
    @Override
    protected void onResume() {
        super.onResume();
        Toast.makeText(this,"onresume called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onresume called");
    }
    @Override
    protected void onPause() {
        super.onPause();
        Toast.makeText(this,"onpause called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onpause called");
    }
    @Override
    protected void onRestart() {
        super.onRestart();
        Toast.makeText(this,"onReStart called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onReStart called");
    }
    @Override
    protected void onStop() {
        super.onStop();
        Toast.makeText(this,"onStop called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onStop called");
    }
    @Override
    protected void onDestroy() {
        super.onDestroy();
        Toast.makeText(this,"onDestroy called",Toast.LENGTH_SHORT).show();
        Log.d("Activitylifecycle","onDestroy called");
    }
}
```

Output

Option menu

xml code

```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">
    <TextView
        android:id="@+id/tv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```
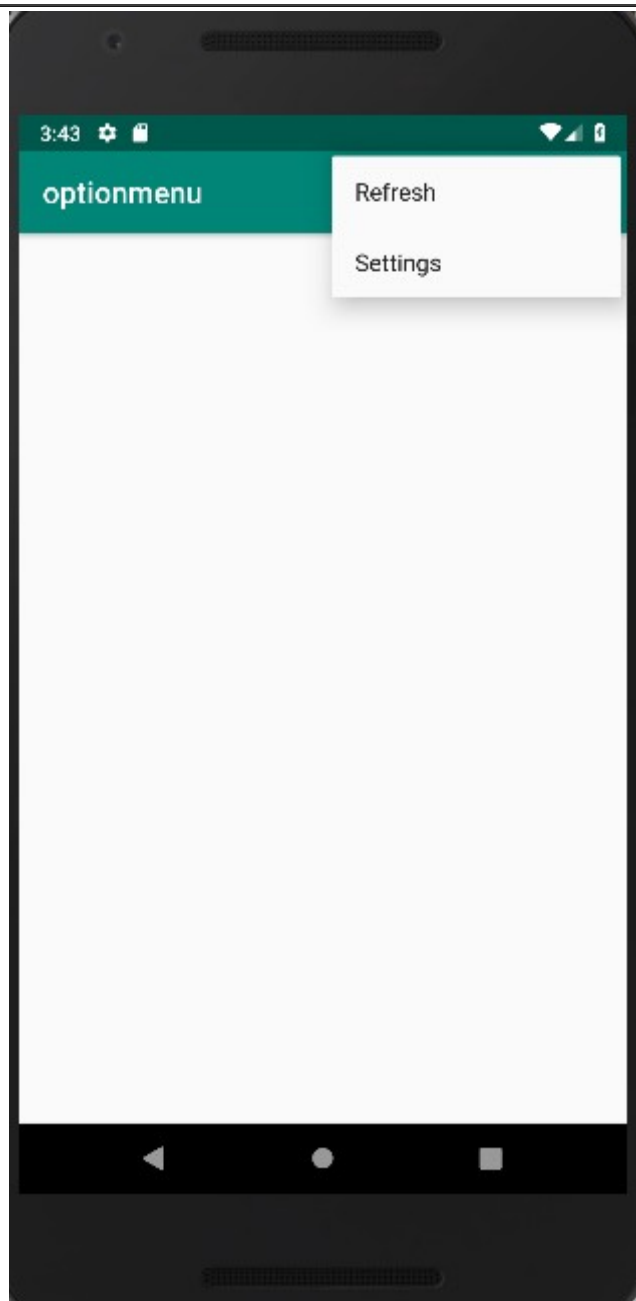
java code

```java
package com.example.sjcet.optionmenu;
```

```java
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=(TextView)findViewById(R.id.tv);
        String msg=getIntent().getStringExtra("mykey");// receiving the data
        tv.setText(msg);                              // display(welcom changing
to admin)
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.optionmenu,menu);    //connecting menu
        return true;                      // changing to true
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case R.id.Refresh:    // full colon
                Toast.makeText(this," Refresh",Toast.LENGTH_SHORT).show();
                break;
            case R.id.Settings:
                Toast.makeText(this," Settings",Toast.LENGTH_SHORT).show();
                break;
        }
        return true;// changing to true
    }
}
```

output

Context Menu

Xml code
```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">
    <TextView
```

```xml
            android:id="@+id/text_view"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Click Here"
            android:textSize="30dp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintLeft_toLeftOf="parent"
            app:layout_constraintRight_toRightOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

menu.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:id="@+id/Emergency"
        android:title="Emergency"
        />
    <item android:id="@+id/profile"
        android:title="Profile"
        />
    <item android:id="@+id/aboutus"
        android:title="About Us"
        />
    <item android:id="@+id/signout"
        android:title="SignOut"
        />
</menu>
```

java code

```java
package com.example.sjcet.contextmenu;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.MenuItem;
import android.view.View;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView textView=findViewById(R.id.text_view);
        registerForContextMenu(textView);
    }
    @Override
    public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        getMenuInflater().inflate(R.menu.mainmenu,menu);
    }
    @Override
    public boolean onContextItemSelected(MenuItem item) {
        switch (item.getItemId()){
            case R.id.Emergency:
                Toast.makeText(this,"Emergency Clicked",Toast.LENGTH_SHORT).show();
                break;
            case R.id.profile:
                Toast.makeText(this,"Profile Clicked",Toast.LENGTH_SHORT).show();
                break;
            case R.id.aboutus:
                Toast.makeText(this,"About Us Clicked",Toast.LENGTH_SHORT).show();
```

```
                break;
            case R.id.signout:
                Toast.makeText(this,"Signout Clicked",Toast.LENGTH_SHORT).show();
                break;
            default:
        }
        return super.onContextItemSelected(item);
    }
}
```

Output