Practical no. 4 Exercise: Q 2: Write a program to display student name and marks. <?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" android:paddingLeft="16dp" android:paddingRight="16dp" android:paddingTop="16dp" tools:context=".MainActivity"> <TextView android:id="@+id/student name" android:layout width="wrap content" android:layout_height="wrap_content" android:layout centerInParent="true" android:text="Shreedhar Phase" /> <TextView android:id="@+id/student_marks" android:layout_width="wrap_content" android:layout_height="wrap_content" android:layout toRightOf="@+id/student name" android:layout centerInParent="true" android:paddingLeft="16dp" android:text="99" /> </RelativeLayout>



Practical no. 5 Exercise: Q 1: Write a program to place Name, Age and mobile number linearly (Vertical) on the display screen using Linear layout. <?xml version="1.0" encoding="utf-8"?> <LinearLayout 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" android:paddingLeft="16dp" android:paddingRight="16dp" android:paddingTop="16dp" android:orientation="vertical" tools:context=".MainActivity">

<TextView

android:id="@+id/student_name" android:layout_width="wrap_content" android:layout_height="wrap_content" android:text="Name:Shree Phase"/>

<TextView

android:layout_width="wrap_content" android:layout_height="wrap_content" android:text="Age: 20" />

<TextView

android:layout_width="wrap_content" android:layout_height="wrap_content" android:text="Mobile Number: 9373010729" />

</LinearLayout>



```
Practical no. 6
Exercise:
```

</TableRow> <TableRow

Q 1: Write a program to display 10 students basic information

```
in a table form using Table layout.
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
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"
  android:collapseColumns="*"
  android:shrinkColumns="*"
  tools:context=".MainActivity">
  <TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center horizontal">
    <TextView
      android:layout_width="match_parent"
      android:layout height="wrap content"
      android:text="10 Students Basic Information"
      android:textColor="#86AD33"
      android:textSize="20dp"
      android:textStyle="bold" />
  </TableRow>
  <TableRow
    android:layout width="match parent"
    android:layout_height="wrap_content">
    <TextView
      android:layout width="0dp"
      android:layout_weight="1"
      android:text="Student Numbers"
      android:textColor="#000"
      android:textStyle="bold" />
    <TextView
      android:layout width="0dp"
      android:layout weight="1"
      android:text="Name"
      android:textColor="#000"
      android:textStyle="bold" />
    <TextView
      android:layout_width="0dp"
      android:layout weight="1"
      android:text="RollNo"
      android:textColor="#000"
      android:textStyle="bold" />
    <TextView
      android:layout_width="0dp"
      android:layout_weight="1"
      android:text="Age"
      android:textColor="#000"
      android:textStyle="bold" />
```



```
android:layout width="match parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout height="wrap content"
   android:text="Student 1:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="shree"/>
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="16"/>
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout height="wrap content"
   android:text="20"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout_width="0dp"
   android:layout weight="1"
   android:text="Student 2:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="shubham"/>
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="18"/>
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout height="wrap content"
   android:text="19"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout_height="wrap_content">
```

```
<TextView
   android:layout_width="0dp"
   android:layout weight="1"
   android:text="Student 3:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="ranjit"/>
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout height="wrap content"
   android:text="01"/>
 <EditText
   android:layout width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
   android:text="20"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout height="wrap content">
 <TextView
   android:layout_width="0dp"
   android:layout_weight="1"
   android:text="Student 4:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="bhaskar"/>
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="08"/>
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
   android:text="20"/>
</TableRow>
<TableRow
 android:layout width="match parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout_width="0dp"
   android:layout weight="1"
```

```
android:text="Student 5:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="vaishnavi"/>
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
   android:text="17"/>
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="20"/>
</TableRow>
<TableRow
 android:layout width="match parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout_width="0dp"
   android:layout weight="1"
   android:text="Student 6:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout width="0dp"
   android:layout_weight="1"
   android:layout height="wrap content"
   android:text="chinmai"/>
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout height="wrap content"
   android:text="21"/>
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
   android:text="19"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout height="wrap content">
 <TextView
   android:layout width="0dp"
   android:layout weight="1"
   android:text="Student 7:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
```

```
<EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="samruddhi"/>
 <EditText
   android:layout_width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="27"/>
 <EditText
   android:layout width="0dp"
   android:layout_weight="1"
   android:layout height="wrap content"
   android:text="18"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout width="0dp"
   android:layout_weight="1"
   android:text="Student 8:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
   android:text="parth"/>
 <EditText
   android:layout width="0dp"
   android:layout_weight="1"
   android:layout height="wrap content"
   android:text="12"/>
 <EditText
   android:layout width="0dp"
   android:layout weight="1"
   android:layout_height="wrap_content"
   android:text="20"/>
</TableRow>
<TableRow
 android:layout_width="match_parent"
 android:layout_height="wrap_content">
 <TextView
   android:layout width="0dp"
   android:layout weight="1"
   android:text="Student 9:"
   android:textColor="#86AD33"
   android:textStyle="bold" />
 <EditText
   android:layout_width="0dp"
   android:layout_weight="1"
   android:layout_height="wrap_content"
```

```
android:text="vivek"/>
   <EditText
     android:layout_width="0dp"
     android:layout_weight="1"
     android:layout_height="wrap_content"
     android:text="02"/>
   <EditText
     android:layout_width="0dp"
     android:layout weight="1"
      android:layout_height="wrap_content"
     android:text="19"/>
  </TableRow>
  <TableRow
   android:layout width="match parent"
   android:layout_height="wrap_content">
   <TextView
     android:layout_width="0dp"
     android:layout_weight="1"
     android:text="Student 10:"
      android:textColor="#86AD33"
     android:textStyle="bold" />
   <EditText
     android:layout width="0dp"
     android:layout_weight="1"
     android:layout_height="wrap_content"
     android:text="raj"/>
   <EditText
     android:layout_width="0dp"
     android:layout_weight="1"
     android:layout_height="wrap_content"
     android:text="15"/>
   <EditText
     android:layout width="0dp"
     android:layout_weight="1"
     android:layout_height="wrap_content"
      android:text="19"/>
 </TableRow>
</TableLayout>
```

```
Practical no. 7 Exercise:
```

Q 1: Write a program to accept username and password from the end user using Text View and Edit Text.

activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
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"
  android:padding="50dp"
  tools:context=".MainActivity">
  <TextView
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:gravity="center"
    android:textSize="25dp"
    android:text="Login Page" />
  <TableRow
    android:layout width="match parent"
    android:layout height="wrap content"
    android:gravity="center_horizontal">
    <TextView
      android:layout_height="wrap_content"
      android:layout_weight="1"
      android:gravity="center"
      android:text="Enter UserName:" />
    <EditText
      android:id="@+id/user"
      android:layout height="wrap content"
      android:layout_weight="1"
      android:hint="abc@gmail.com" />
  </TableRow>
  <TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center horizontal">
    <TextView
      android:layout_height="wrap_content"
      android:layout weight="1"
      android:gravity="center"
      android:text="Enter Password:" />
    <EditText
      android:id="@+id/pass"
      android:layout height="wrap content"
      android:layout weight="1"
      android:hint="1234" />
```



```
</TableRow>
  <Button
    android:id="@+id/btn1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout_marginBottom="172dp"
    android:text="Login" />
</TableLayout>
MainActivity.java
package com.example.helloword;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
                                                                                         Login Page
import android.widget.Button;
                                                                                 Enter UserName:
                                                                                              Shree
import android.widget.EditText;
import android.widget.Toast;
                                                                                              1234
                                                                                 Enter Password:
                                                                                             Login
public class MainActivity extends AppCompatActivity {
 EditText user,pass;
  Button b;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    b= findViewById(R.id.btn1);
    user = findViewById(R.id.user);
    pass = findViewById(R.id.pass);
    b.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
                                                                                             Shree
        if(user.getText().toString().equals("Shree") &
pass.getText().toString().equals("1234"))
```

0

Toast.makeText(getApplicationContext(),"Login

getApplicationContext(),"error",Toast.LENGTH_SHORT).show();

Sucessful", Toast.LENGTH_SHORT).show();

Toast.makeText(

} else

});
}

Practical no. 8

Exercise:

Q 1: Write a program to create a first display screen of any search engine using Auto Complete Text View.

```
activity_main.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">
  <AutoCompleteTextView
    android:id="@+id/autoCompleteTextView"
    android:layout width="match parent"
    android:layout_height="wrap_content"
    android:layout margin="16dp"
    android:layout_centerVertical="true"
    android:hint="Search"
    android:completionThreshold="1" />
</RelativeLayout>
MainActivity.java
package com.example.helloword;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import androidx.appcompat.app.AppCompatActivity;
```

public class MainActivity extends AppCompatActivity {

protected void onCreate(Bundle savedInstanceState) {

AutoCompleteTextView autoCompleteTextView =

String[] suggestions = {"Google", "Bing", "Yahoo",

autoCompleteTextView.setAdapter(adapter);

ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple_dropdown_item_1line,

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

findViewById(R.id.autoCompleteTextView);

@Override

"DuckDuckGo", "Ask"};

suggestions);

}



Practical no. 11

Exercise:

Q 1: Write a program to show five checkboxes and toast selected checkboxes.

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android" android:layout width="match parent" android:layout height="wrap content" android:orientation="vertical"> <CheckBox android:id="@+id/checkbox1" android:layout_width="wrap_content" android:layout height="wrap content" android:text="Checkbox 1"/> <CheckBox android:id="@+id/checkbox2" android:layout width="wrap content" android:layout height="wrap content" android:text="Checkbox 2"/> <CheckBox android:id="@+id/checkbox3" android:layout width="wrap content" android:layout height="wrap content" android:text="Checkbox 3"/> <CheckBox android:id="@+id/checkbox4" android:layout_width="wrap_content" android:layout_height="wrap_content" android:text="Checkbox 4"/> <CheckBox android:id="@+id/checkbox5" android:layout width="wrap content" android:layout_height="wrap_content" android:text="Checkbox 5"/>



MainActivity.java

</LinearLayout>

package com.example.myapplication1; import android.os.Bundle;

import android.view.View;

import android.widget.CheckBox;

import android.widget.Toast;

 $import\ and roidx. app compat. app. App Compat Activity;$

public class MainActivity extends AppCompatActivity {
 private CheckBox mCheckbox1, mCheckbox2, mCheckbox3,
 mCheckbox4, mCheckbox5;

@Override

protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);

mCheckbox1 = findViewById(R.id.checkbox1);

mCheckbox2 = findViewById(R.id.checkbox2);

```
mCheckbox3 = findViewById(R.id.checkbox3);
    mCheckbox4 = findViewById(R.id.checkbox4);
    mCheckbox5 = findViewById(R.id.checkbox5);
  private final View.OnClickListener onCheckboxClickListener =
new View.OnClickListener() {
    @Override
  public void onClick(View view) {
    StringBuilder selectedCheckboxes = new StringBuilder();
    if (mCheckbox1.isChecked()) {
selectedCheckboxes.append(mCheckbox1.getText().toString());
      selectedCheckboxes.append(", ");
    if (mCheckbox2.isChecked()) {
selectedCheckboxes.append(mCheckbox2.getText().toString());
      selectedCheckboxes.append(", ");
    if (mCheckbox3.isChecked()) {
selectedCheckboxes.append(mCheckbox3.getText().toString());
      selectedCheckboxes.append(", ");
    if (mCheckbox4.isChecked()) {
selectedCheckboxes.append(mCheckbox4.getText().toString());
      selectedCheckboxes.append(", ");
    }
    if (mCheckbox5.isChecked()) {
selectedCheckboxes.append(mCheckbox5.getText().toString());
      selectedCheckboxes.append(", ");
    if (selectedCheckboxes.length() > 0) {
      selectedCheckboxes.delete(selectedCheckboxes.length() -
2, selectedCheckboxes.length() - 1);
      String toastMessage = "Selected checkboxes: " +
selectedCheckboxes.toString();
      Toast.makeText(MainActivity.this, toastMessage,
Toast.LENGTH_SHORT).show();
    }
  }
  };
```

6. Write a program to create login form for student registration form.

```
MainActivity.xml code:
  <?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
  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"
  android:background="@drawable/background"
  tools:context=".MainActivity">
<TextView android:layout_width="match_parent"
  android:layout height="wrap content"android:id="@+id/signin"
  android:text="Sign in" android:textColor="@color/white"
  android:textSize="35dp" android:textStyle="bold"
  android:layout_margin="50dp" android:gravity="center"/>
<EditText android:layout_width="match_parent"
  android:layout height="wrap content"
  android:id="@+id/username" android:layout_below="@id/signin"
  android:background="#30ffffff" android:hint="Username"
  android:textColorHint="@color/white"
  android:textColor="@color/white"
  android:layout margin="10dp"android:padding="20dp"
  android:drawableLeft="@drawable/ic baseline person outline 24"
  android:drawablePadding="20dp"/>
<EditText android:layout_width="match_parent"
  android:layout height="wrap content"
  android:id="@+id/password"
  android:layout below="@id/username"
  android:background="#30ffffff" android:hint="Password"
  android:textColorHint="@color/white"
  android:textColor="@color/white" android:layout margin="10dp"
  android:padding="20dp"
  android:drawableLeft="@drawable/ic_baseline_info_24"
  android:drawablePadding="20dp"
  android:inputType="textPassword"/>
<com.google.android.material.button.MaterialButton
  android:layout_width="wrap_content"
  android:layout height="wrap content" android:id="@+id/loginbtn"
  android:layout_below="@id/password" android:text="LOGIN"
  android:backgroundTint="@color/design default color secondary"
  android:layout_centerHorizontal="true"
  android:layout margin="20dp"/>
<TextView android:layout_width="wrap_content"
  android:layout height="wrap content"
  android:id="@+id/forgotpass"
  android:layout below="@id/loginbtn" android:text="Forgot
```

password?" android:textColor="@color/white"
android:layout_centerHorizontal="true"
android:layout_margin="20dp"/>

<TextView android:layout_width="wrap_content" android:layout_height="wrap_content" android:id=" android:layout_above="@id/socialicons" android:tex with" android:layout_centerHorizontal="true"/>

<LinearLayout android:layout_width="match_parent" android:layout_height="wrap_content" android:id="@+id/socialicons" android:layout_alignParentBottom="true"android:graph

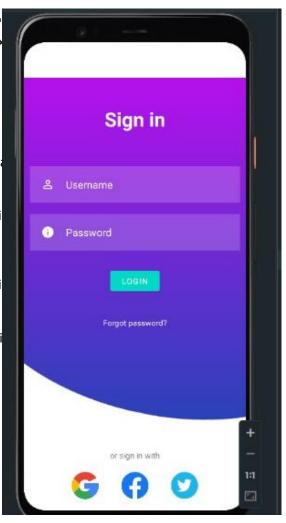
<ImageView android:layout_width="48dp"
android:layout_height="48dp" android:layout_margi
android:src="@drawable/google"/>

<ImageView android:layout_width="48dp"
android:layout_height="48dp" android:layout_margi
android:src="@drawable/fb"/>

<ImageView android:layout_width="48dp"
android:layout_height="48dp" android:layout_margi
android:src="@drawable/twitter"/>

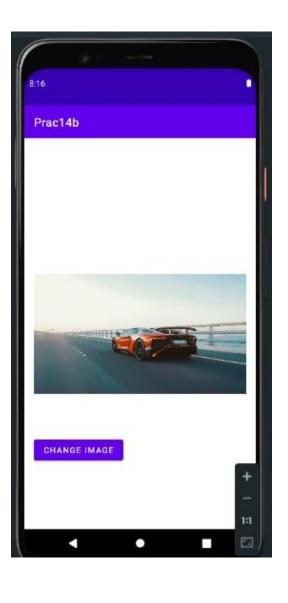
</LinearLayout>

</RelativeLayout>



Qyestion: Write a program to display image using Image View and the button named as "changed Image". Once you click on button another image should get displayed.

```
MainActivity.xml code:
  <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"
    android:padding="16dp" tools:context=".MainActivity">
  <ImageView android:id="@+id/my_image_view"</pre>
    android:layout_width="match_parent"
    android:layout height="wrap content"
    android:layout_centerVertical="true"
    android:layout marginBottom="16dp"
    android:scaleType="fitCenter"
  android:src="@drawable/image1"/>
  <Button android:id="@+id/change button"
    android:layout_width="wrap content"
    android:layout height="wrap content"
    android:layout_below="@+id/my_image_view"
    android:layout marginTop="-150dp"
    android:text="Change Image" />
    </RelativeLayout>
    MainActivity.java code:
    package com.example.prac14b;import android.os.Bundle; import
    android.view.View; import android.widget.Button;
    import android.widget.ImageView;
    import androidx.appcompat.app.AppCompatActivity; public class
    MainActivity extends AppCompatActivity {private ImageView
    mylmageView;
    private Button changeButton;
      private boolean isImage1Displayed = true;@Override
    protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);
  myImageView = findViewById(R.id.my_image_view); changeButton =
      findViewById(R.id.change_button);
changeButton.setOnClickListener(new View.OnClickListener() {
      @Override
  public void onClick(View view) {if (isImage1Displayed) {
    myImageView.setImageResource(R.drawable.image2);
    isImage1Displayed = false;
    } else {
    myImageView.setImageResource(R.drawable.image1);
    isImage1Displayed = true;
    }});}}
```



Write a program to create Hello World Activity using all lifecycles methods to display messages sing Log.d.

```
Practical 17 MainActivity.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:layout width="match parent"
  android:layout height="match parent"
  tools:context=".MainActivity">
<TextView android:layout_width="wrap_content"
  android:layout_height="wrap_content"android:text="Hello World!"
  app:layout constraintBottom toBottomOf="parent"
  app:layout_constraintEnd_toEndOf="parent"
  app:layout_constraintStart_toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
  </androidx.constraintlayout.widget.ConstraintLayout>
  MainActivity.java code:
  package com.example.practical17;
  import androidx.appcompat.app.AppCompatActivity;
  import android.os.Bundle;
  import androidx.appcompat.app.AppCompatActivity;
  import android.os.Bundle;import android.util.Log;
  public class MainActivity extends AppCompatActivity {
  private static final String TAG = "MainActivity";
  @Override
protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity main);
  Log.d(TAG, "onCreate: Hello World!");
  }
  @Override
protected void onStart() {super.onStart();
  Log.d(TAG, "onStart: Activity started.");
  }
  @Override
protected void onResume() {super.onResume();
  Log.d(TAG, "onResume: Activity resumed.");
  }
  @Override
protected void onPause() {super.onPause();
```

```
Log.d(TAG, "onPause: Activity paused.");
}
@Override

protected void onStop() {super.onStop();
    Log.d(TAG, "onStop: Activity stopped.");
}
@Override

protected void onDestroy() {super.onDestroy();
    Log.d(TAG, "onDestroy: Activity destroyed.");
}
@Override

protected void onRestart() {super.onRestart();
    Log.d(TAG, "onRestart: Activity restarted.");
}
```

