<u>TUTORIAL 1</u>

AIM: Create linear layout which contains one button and a text view. In button tag we set the button_id as@id/button. This id is used to uniquely identify the view. When we click on button, the text view text will change to 'you have clicked the button'

<u>XML:</u>

```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">

  <LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginStart="8dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="8dp"
    android:layout_marginBottom="8dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">
    <TextView
      android:id="@+id/textView"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:text="TextView" />
    <Button
      android:id="@+id/button"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
```

```xml
        android:text="Button" />
    </LinearLayout>
</android.support.constraint.ConstraintLayout>
```
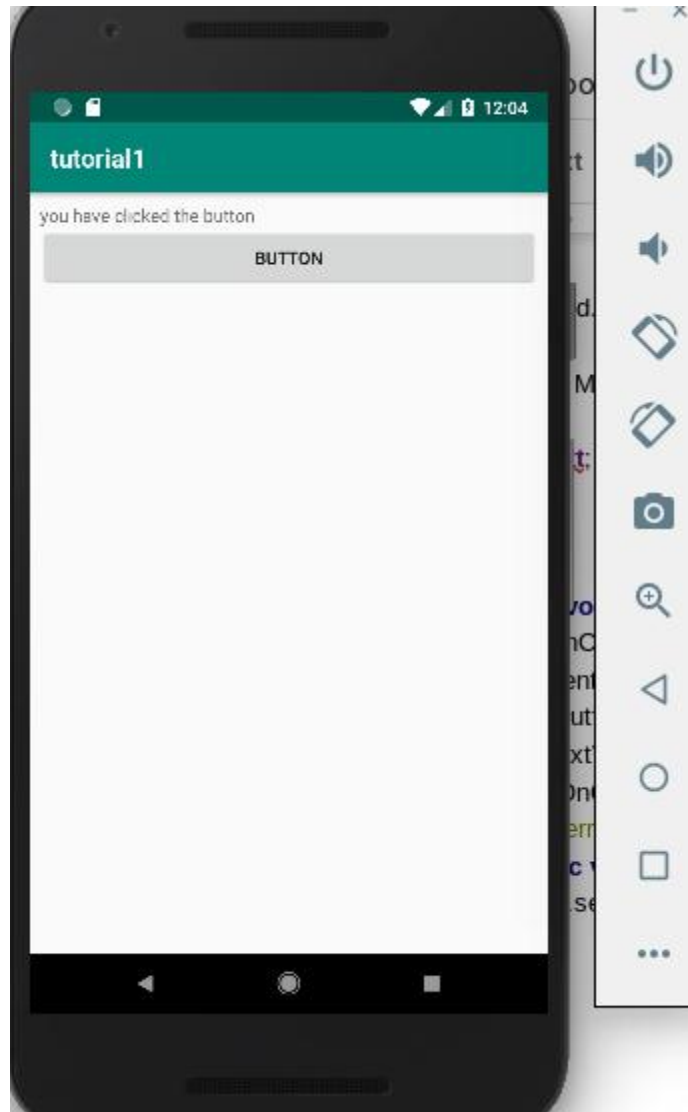
JAVA FILE:

```java
package com.example.tutorial1;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView txt;
    Button btn;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn = (Button) findViewById(R.id.button);
        txt = (TextView) findViewById(R.id.textView);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                txt.setText("you have clicked the button");
            }
        });
    }
}
```

Screenshot :

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TUTORIAL 2

AIM: Create three check boxes named as INDIA, SRILANKA and PAKISTAN. When we check the specific checkbox,it will display the corresponding text of that checkbox in the textview.

XML:

```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">
  <LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:orientation="vertical">

    <CheckBox
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:id="@+id/india"
      android:text="INDIA"/>
    <CheckBox
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:id="@+id/pak"
      android:text="PAKISTHAN"/>
    <CheckBox
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:id="@+id/srilanka"
      android:text="SRILANKA"/>
    <TextView
      android:id="@+id/textView"
      android:layout_width="match_parent"
```

```xml
                    android:layout_height="wrap_content"
                    android:text="TextView" />
        </LinearLayout>
</android.support.constraint.ConstraintLayout>
```

JAVA CODE :

```java
package com.example.tutorial2;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView txt;
    CheckBox india,sri,pak;
    String str = " ";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        txt = (TextView)findViewById(R.id.textView);
        india = (CheckBox)findViewById(R.id.india);
        sri = (CheckBox)findViewById(R.id.srilanka);
        pak = (CheckBox)findViewById(R.id.pak);
        india.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked) {
                    str += " INDIA ";
                    txt.setText(str);
                }
                else {
                    String[] split = str.split("INDIA");
                    String firstSubString = split[0];
                    String secondSubString = split[1];
                    str = firstSubString+" " +secondSubString;
                    txt.setText(str);
                }
            }
        });

        sri.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
```

```java
        @Override
        public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
            if(isChecked) {
                str += " SRILANKA ";

                txt.setText(str);
            }
            else {
                String[] split = str.split("SRILANKA");
                String firstSubString = split[0];
                String secondSubString = split[1];
                str = firstSubString+" " +secondSubString;
                txt.setText(str);
            }
        }
    });

    pak.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
            if(isChecked) {
                str += " PAKISTAN ";
                txt.setText(str);
            }
            else {
                String[] split = str.split("PAKISTAN");
                String firstSubString = split[0];
                String secondSubString = split[1];
                str = firstSubString+" " +secondSubString;
                txt.setText(str);
            }
        }
    });
}
}
```
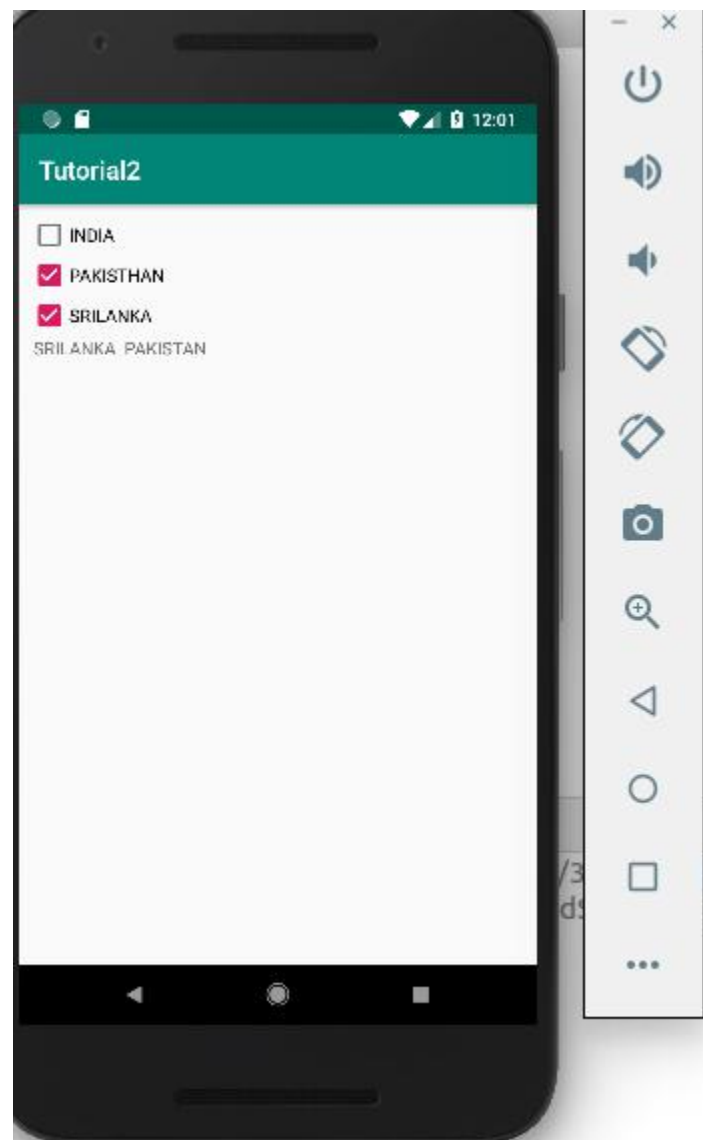
Screenshot :

TUTORIAL 3

AIM: Create three check boxes named as INDIA, SRILANKA and PAKISTAN. When we check the specific checkbox,it will display the corresponding text of that checkbox in the edittext.

XML:

```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">

  <LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginStart="8dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="8dp"
    android:layout_marginBottom="8dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <CheckBox
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:id="@+id/india"
      android:text="INDIA"/>
    <CheckBox
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:id="@+id/pak"
      android:text="PAKISTHAN"/>
    <CheckBox
      android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"
        android:id="@+id/srilanka"
        android:text="SRILANKA"/>
    <EditText
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

        android:text="TextView" />
    </LinearLayout>
</android.support.constraint.ConstraintLayout>
```

Java code:

```java
package com.example.tutorial3;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText txt;
    CheckBox india,sri,pak;
    String str = "";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        txt = (EditText)findViewById(R.id.textView);
        india = (CheckBox)findViewById(R.id.india);
        sri = (CheckBox)findViewById(R.id.srilanka);
        pak = (CheckBox)findViewById(R.id.pak);
        india.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked) {
                    str += " INDIA ";
                    txt.setText(str);
                }
                else {
                    String[] split = str.split("INDIA");
```

```java
                String firstSubString = split[0];
                String secondSubString = split[1];
                str = firstSubString+" " +secondSubString;
                txt.setText(str);
            }
        }
    });
    sri.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
            if(isChecked) {
                str += " SRILANKA ";

                txt.setText(str);
            }
            else {
                String[] split = str.split("SRILANKA");
                String firstSubString = split[0];
                String secondSubString = split[1];
                str = firstSubString+" " +secondSubString;
                txt.setText(str);
            }
        }
    });
    pak.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
            if(isChecked) {
                str += " PAKISTAN ";
                txt.setText(str);
            }
            else {
                String[] split = str.split("PAKISTAN");
                String firstSubString = split[0];
                String secondSubString = split[1];
                str = firstSubString+" " +secondSubString;
                txt.setText(str);
            }
        }
    });
}
}
```
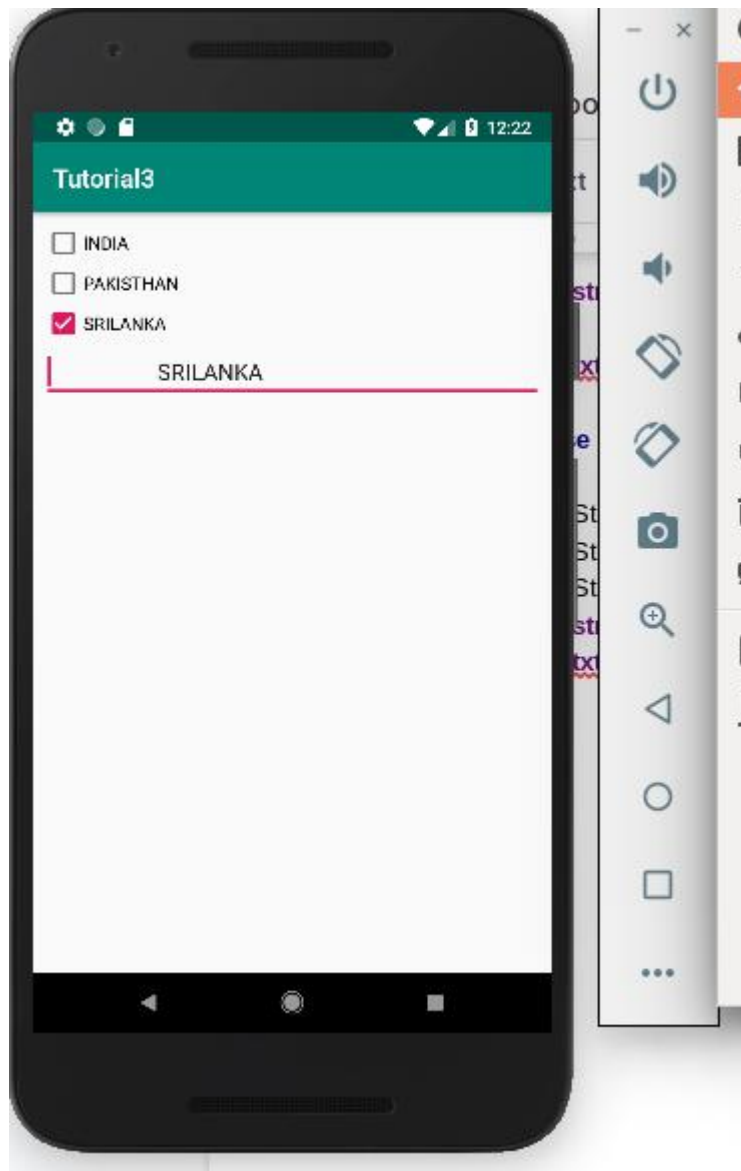
Screenshot :

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TUTORIAL 4

AIM: Create an application contains two toggle button and one button .When we click on toggle button it will show a toast message.

XML:

```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">

  <LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginStart="8dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="8dp"
    android:layout_marginBottom="8dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <ToggleButton
      android:id="@+id/toggleButton"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:text="ToggleButton" />
    <ToggleButton
      android:id="@+id/toggleButton2"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
```

```xml
            android:text="ToggleButton" />
        <Button
            android:id="@+id/button"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Button" />
    </LinearLayout>
</android.support.constraint.ConstraintLayout>
```

Java code :

```java
package com.example.tutorial4;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity {

    Button b;
    ToggleButton one,two;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b = (Button)findViewById(R.id.button);
        one = (ToggleButton)findViewById(R.id.toggleButton);
        two = (ToggleButton)findViewById(R.id.toggleButton2);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(getApplicationContext(),"Toggle 1 : "+one.getText()+"\nToggle 2 :
"+two.getText(),Toast.LENGTH_LONG).show();


            }
        });
    }
}
```
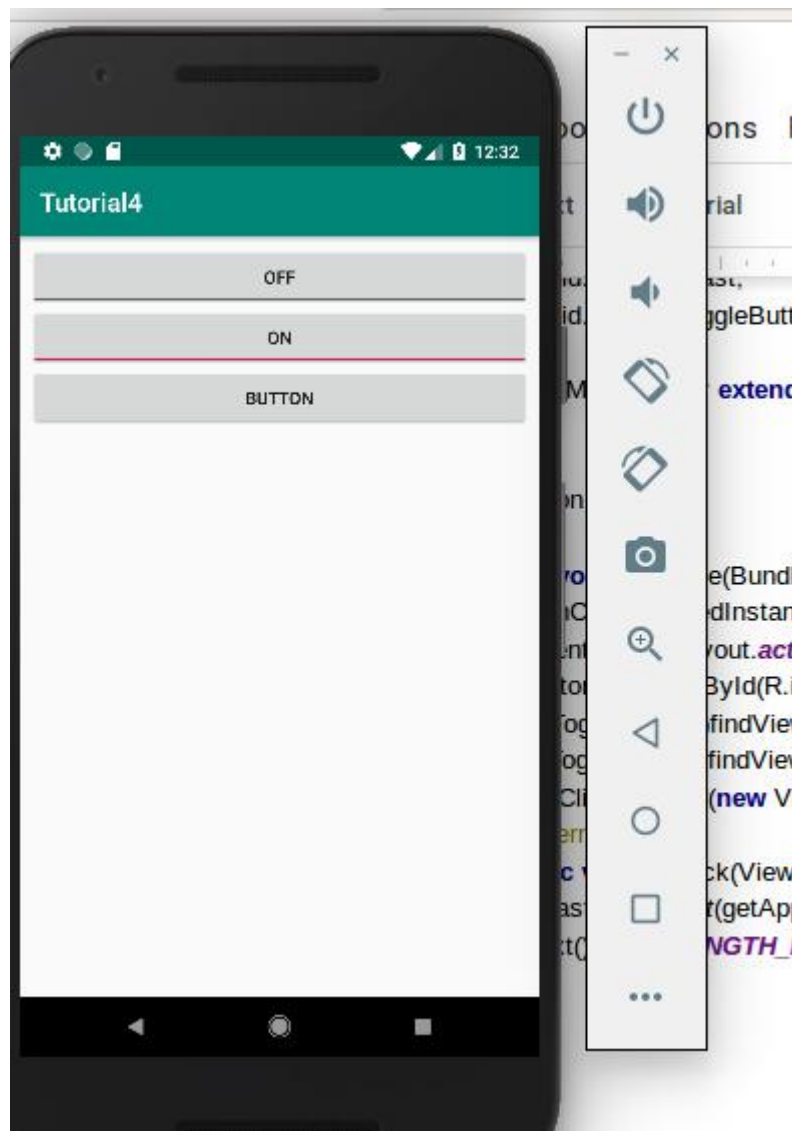
Screenshot:

TUTORIAL 5

AIM: Create an application which contains two radio button present in one group. That means at a time one radio button is selected .When we click on button, corresponding text will display in textview. That means, when we click on female radio button, it displays "selected gender:female"

XML:

```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">
    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="8dp"
        android:orientation="vertical"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">
        <TextView
            android:id="@+id/textView"
            android:layout_width="match_parent"
            android:layout_height="42dp"
            android:layout_margin="10dp"
            android:padding="5dp"
            android:text="@string/tutorial_5"
            android:textAlignment="center" />
        <RadioGroup
            android:layout_width="318dp"
            android:layout_height="128dp"
```

```xml
                android:textAlignment="center"
                android:id="@+id/sexradiogroup">
                <RadioButton
                    android:id="@+id/male"
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
                    android:layout_weight="1"
                    android:text="@string/male" />
                <RadioButton
                    android:id="@+id/female"
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
                    android:layout_weight="1"
                    android:text="@string/female" />
            </RadioGroup>
            <TextView
                android:id="@+id/textView2"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_margin="30dp"
                android:padding="10dp"
                android:text="@string/selected_gender"
                android:textAlignment="center"
                android:textColorLink="@color/colorAccent" />
        </LinearLayout>
</android.support.constraint.ConstraintLayout>
```

JAVA CODE :

```java
package com.example.tutorial5;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    RadioGroup radioGroup;
    RadioButton male,female;
    TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```java
        radioGroup = findViewById(R.id.sexradiogroup);
        textView =  findViewById(R.id.textView2);
        male = findViewById(R.id.male);
        female = findViewById(R.id.female);
        male.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                textView.setText("SELECTED SEX : MALE");
            }
        });
        female.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                textView.setText("SELECTED SEX : FEMALE");
            }
        });
    }
}
```

ScreenShot

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TUTORIAL 6

AIM: Create an example applcation , when we write a letter it suggests the words related to that letter which we write in the edit text.(Auto complete view)
XML:

```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">
    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="8dp"
        android:orientation="vertical"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">
        <TextView
            android:id="@+id/textView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="15dp"
            android:padding="15dp"
            android:text="TUTORIAL 5"
            android:textAlignment="center"
            android:textColor="@color/colorAccent" />
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="vertical">
```

```xml
        <AutoCompleteTextView
            android:id="@+id/autoCompleteTextView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="20dp"
            android:padding="20dp"
            android:hint="Enter the names like vyshak puthusseri, yedhu thampi,vishnu prashanth, Tyson"
            android:textColor="@color/colorAccent" />
    </LinearLayout>
  </LinearLayout>
</android.support.constraint.ConstraintLayout>
```
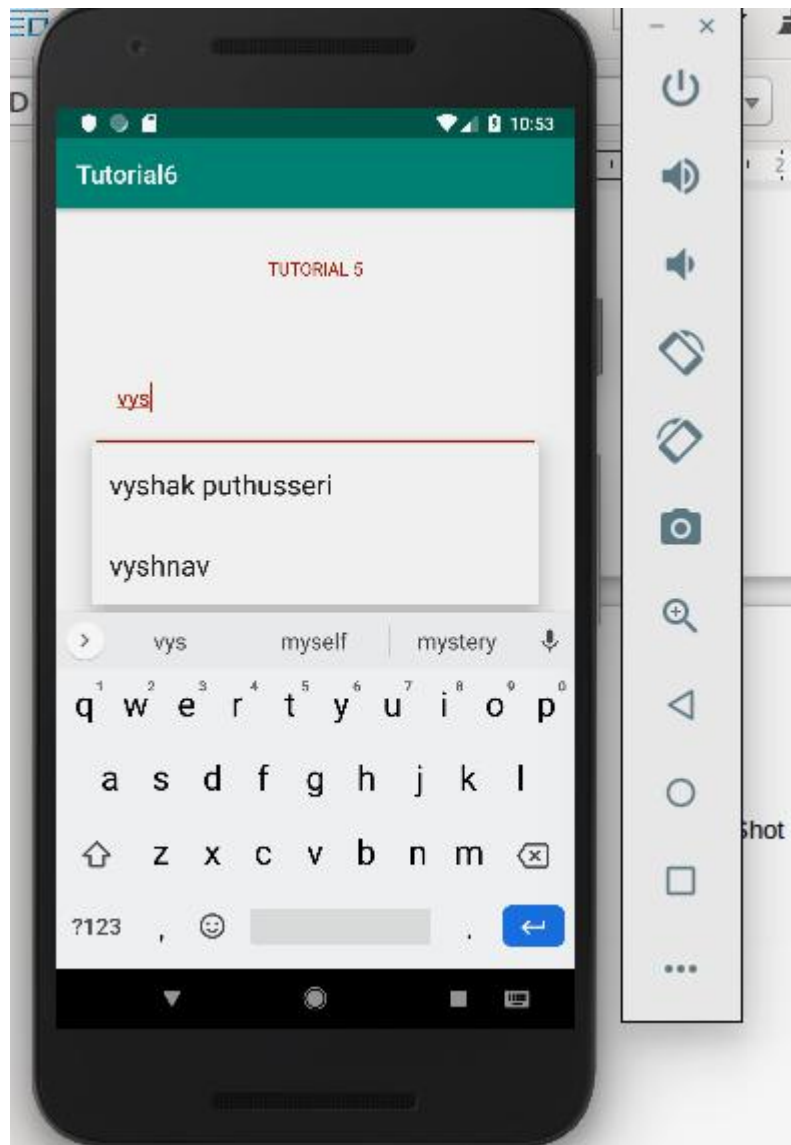
JAVA CODE :

```java
package com.example.tutorial6;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
public class MainActivity extends AppCompatActivity {
    String[] names = {"vyshak puthusseri","vyshnav","yeanest","yedhu thampi","vimuna","vishnu prashanth","Tarson","Tyson"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
android.R.layout.select_dialog_item,names);
        AutoCompleteTextView txt =
(AutoCompleteTextView)findViewById(R.id.autoCompleteTextView);
        txt.setThreshold(1);//Start prediction from first character
        txt.setAdapter(adapter);
    }
}
```

TUTORIAL 7

AIM: Create an example application, where we have to display one image on the screen. Then we have to create two images named android1 and android2,and place it in drawable folder .When we click on change button, the picture of image view will change to android2 (Image view)
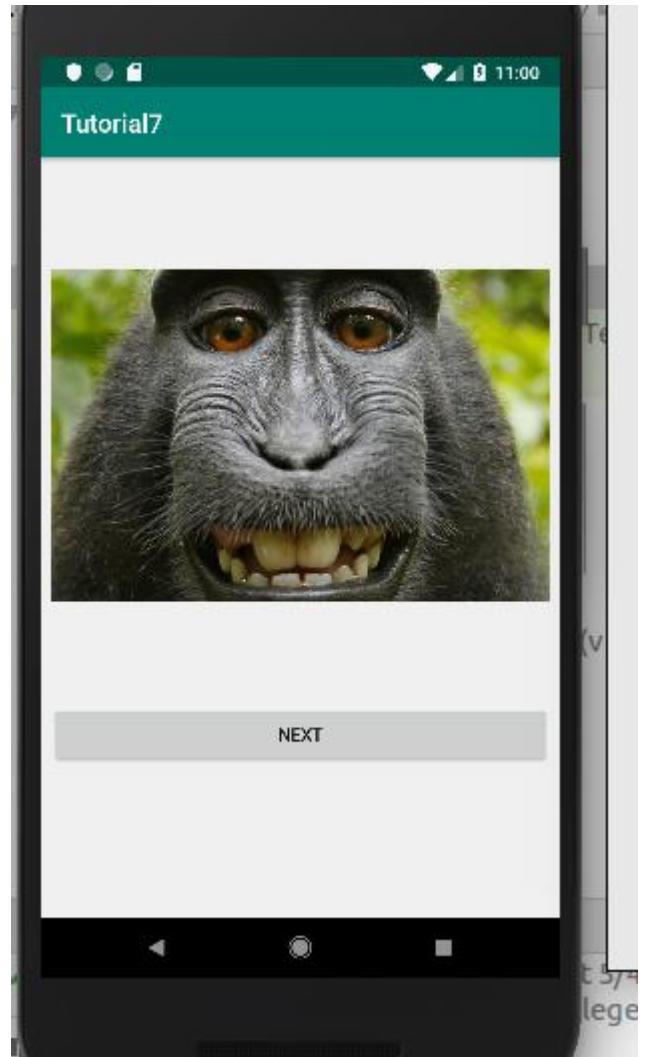
<u>XML:</u>

```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">
  <LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginStart="8dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="8dp"
    android:layout_marginBottom="8dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">
    <ImageView
      android:id="@+id/imageView"
      android:layout_width="match_parent"
      android:layout_height="426dp"
      android:contentDescription="TODO"
      android:src="@drawable/dora" />
    <Button
      android:id="@+id/button"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:text="@string/next" />
```

</LinearLayout>
</android.support.constraint.ConstraintLayout>

JAVA CODE :

```java
package com.example.tutorial7;
import android.provider.ContactsContract;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class MainActivity extends AppCompatActivity {
    Button nextButton;
    ImageView imageView;
    int count = 0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        nextButton = (Button)findViewById(R.id.button);
        imageView = (ImageView)findViewById(R.id.imageView);
        nextButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(count == 0 ) {
                    imageView.setImageDrawable(getDrawable(R.drawable.img1));
                    count = 1;
                } else if(count == 1){
                    imageView.setImageDrawable(getDrawable(R.drawable.img2));
                    count = 2;
                } else if(count == 2){
                    imageView.setImageDrawable(getDrawable(R.drawable.img3));
                    count = 3;
                }else if(count == 3){
                    imageView.setImageDrawable(getDrawable(R.drawable.rose));
                    count = 4;
                }else {
                    imageView.setImageDrawable(getDrawable(R.drawable.dora));
                    count = 0;
                }}
        });
    }
}
```

ScreenShot

<u>TUTORIAL 8</u>

AIM: Create an example ,where you have a push button for which you can specify a customized background image (Drawable)

<u>XML:</u>

```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">

    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="8dp"
        android:orientation="vertical"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:background="@drawable/img2">


        <ImageButton
            android:id="@+id/button"
            android:layout_width="300dp"
            android:layout_height="150dp"
            android:src="@drawable/dora" />
    </LinearLayout>

</android.support.constraint.ConstraintLayout>
```

JAVA CODE :

```java
package com.example.tutorial_8;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageButton;
import android.widget.LinearLayout;

public class MainActivity extends AppCompatActivity {

    ImageButton nextButton;
```

```java
    LinearLayout background;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        nextButton = findViewById(R.id.button);
        background = (LinearLayout)findViewById(R.id.linearLayout);
        nextButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                background.setBackground(getDrawable(R.drawable.dora));
            }
        });
    }
}
```

ScreenShot

TUTORIAL 9

AIM: Create a timepicker application where we have to pick current time and display it on the screen.

XML:

```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">
    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <TimePicker
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/timePicker"></TimePicker>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/display"
            android:layout_below="@+id/timePicker"/>
    </RelativeLayout>
</android.support.constraint.ConstraintLayout>
```
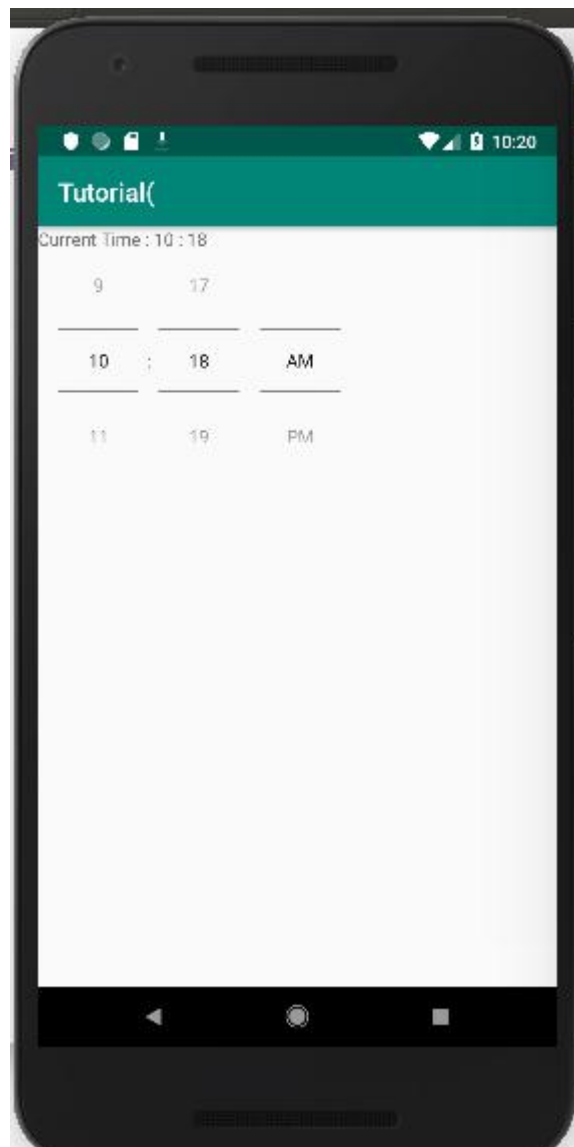
```java
JAVA CODE :
package com.example.tutorial;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
import android.widget.TimePicker;
public class MainActivity extends AppCompatActivity {
    TimePicker timePicker;
    TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```java
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        timePicker =findViewById(R.id.timePicker);
        textView = findViewById(R.id.display);
        textView.setText("Current Time : "+timePicker.getHour()+ " : "+timePicker.getMinute()+"  ");
        timePicker.setOnTimeChangedListener(new TimePicker.OnTimeChangedListener() {
            @Override
            public void onTimeChanged(TimePicker view, int hourOfDay, int minute) {
                textView.setText("Time : "+hourOfDay + " : "+minute);
            }
        });
    }
}
```

ScreenShot

VYSHAK PUTHUSSERI
YEDHU THAMBI

TUTORIAL 10

AIM: Create a datepicker application where we have to pick current date and display it on the screen.

XML:

```xml
<?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"
    tools:context=".MainActivity">
    <DatePicker
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/datePicker">
    </DatePicker>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/display"/>
</RelativeLayout>
```

```java
JAVA CODE :
package com.example.tutorial_10;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.DatePicker;
import android.widget.TextView;
import android.widget.TimePicker;
import java.time.Year;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    DatePicker datePicker;
    TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        datePicker =findViewById(R.id.datePicker);
```

```java
    textView = findViewById(R.id.display);
    final Calendar calendar = Calendar.getInstance();
    textView.setText(calendar.get(calendar.DAY_OF_MONTH)+" : "+
calendar.get(Calendar.MONTH)+ " : " +calendar.get(Calendar.YEAR));
    datePicker.init(calendar.get(Calendar.YEAR), calendar.get(Calendar.MONTH),
calendar.get(Calendar.DAY_OF_MONTH), new DatePicker.OnDateChangedListener() {
        @Override
        public void onDateChanged(DatePicker view, int year, int monthOfYear, int dayOfMonth) {
            textView.setText(dayOfMonth +" : "+monthOfYear+" : "+ year);
        }
    });

    }
}
```
ScreenShot