

ANDROID

TUTORIAL

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Project - 1

We have to 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'.

XML CODE

```
<?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:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <Button
            android:id="@+id/button"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Button" />

        <TextView
            android:id="@+id/textView2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Nothing"
            android:textSize="30sp" />
    </LinearLayout>
</android.support.constraint.ConstraintLayout>
```

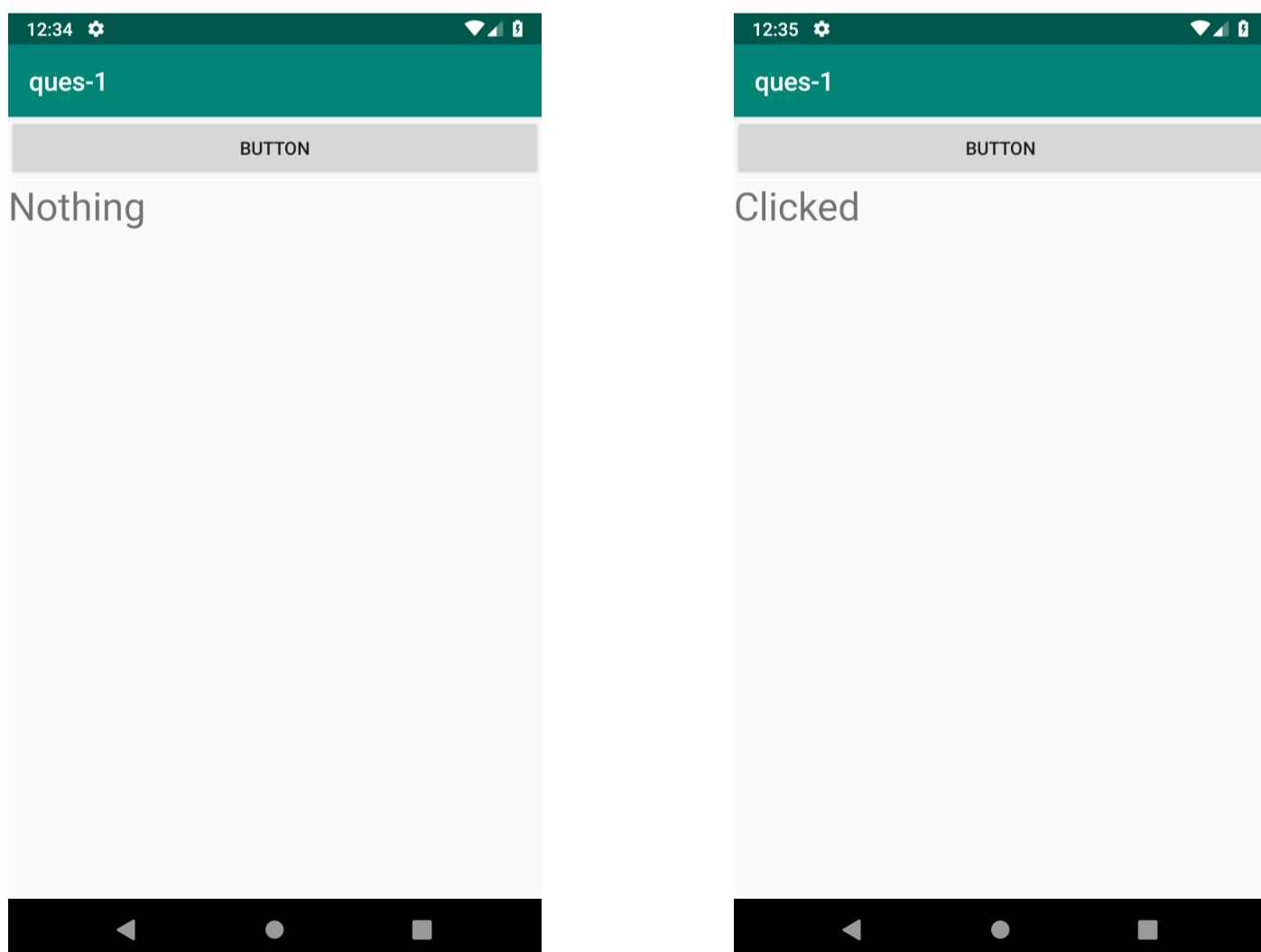
JAVA CODE

```
package com.sashwat.ques_1;

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 {
    Button buttonClick;
    TextView testContent;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        buttonClick = findViewById(R.id.button);
        testContent = findViewById(R.id.textView2);
        buttonClick.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                testContent.setText("Clicked");
            }
        });
    }
}
```

SCREENSHOT



Project - 2

We have to create three check boxes named as INDIA, SRI LANKA and PAKISTAN. When we check the specific checkbox, it will display the corresponding text of that checkbox in the textview.

XML CODE

```
<?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:orientation="vertical"
    tools:context=".MainActivity">
    <CheckBox
        android:id="@+id/india"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="INDIA"/>
    <CheckBox
        android:id="@+id/sri"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="SRILANKA"/>
    <CheckBox
        android:id="@+id/paki"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="PAKISTHAN"/>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Click a checkbox"
        android:id="@+id/tv"
        />
</LinearLayout>
```

JAVA CODE

```
package com.sashwat.q2;

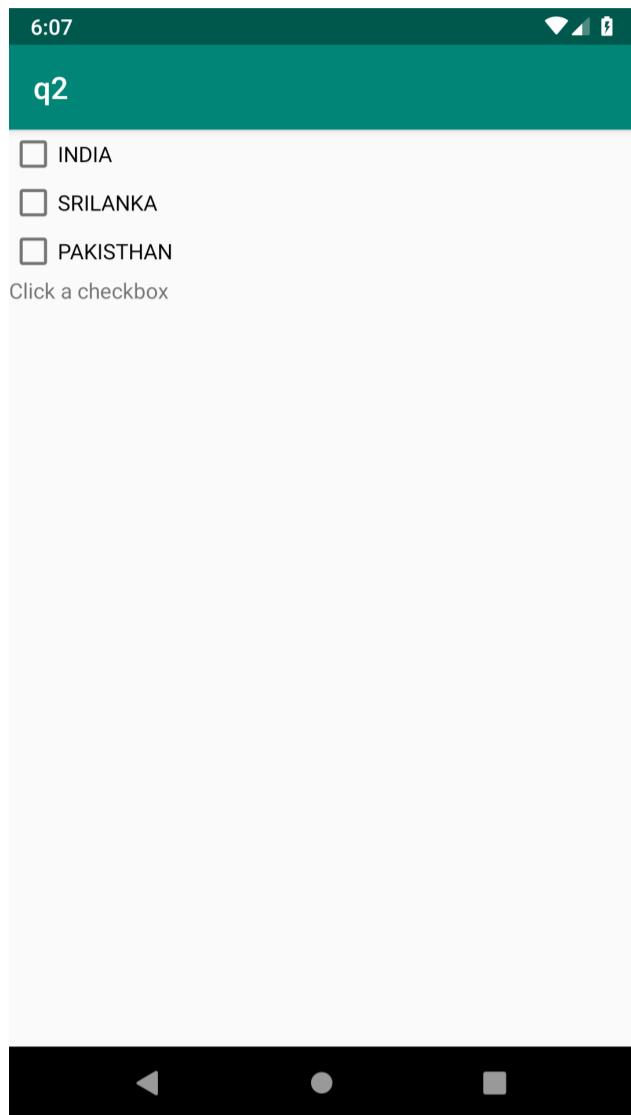
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView tv;
    CheckBox cb1, cb2, cb3;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=findViewById(R.id.tv);
        cb1=findViewById(R.id.india);
        cb2=findViewById(R.id.sri);
        cb3=findViewById(R.id.paki);

        cb1.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("INDIA");
                }
            }
        });
        cb2.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("SRILANKA");
                }
            }
        });
        cb3.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                {
                    tv.setText("PAKISTHAN");
                }
            }
        });
    }
}
```

SCREENSHOT



Project - 3

We have to create three check boxes named as INDIA, SRILANKA and PAKISTAN. When we check one or more boxes, it will display the corresponding text of those check box in the edittext.

XML CODE

```
<?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:orientation="vertical"
    tools:context=".MainActivity">
    <CheckBox
        android:id="@+id/india"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="INDIA"/>
    <CheckBox
        android:id="@+id/sri"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="SRILANKA"/>
    <CheckBox
        android:id="@+id/paki"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="PAKISTHAN"/>
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Click on checkbox"
        android:id="@+id/tv"
        />
</LinearLayout>
```

JAVA CODE

```
package com.sashwat.p3;

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

import java.util.ArrayList;

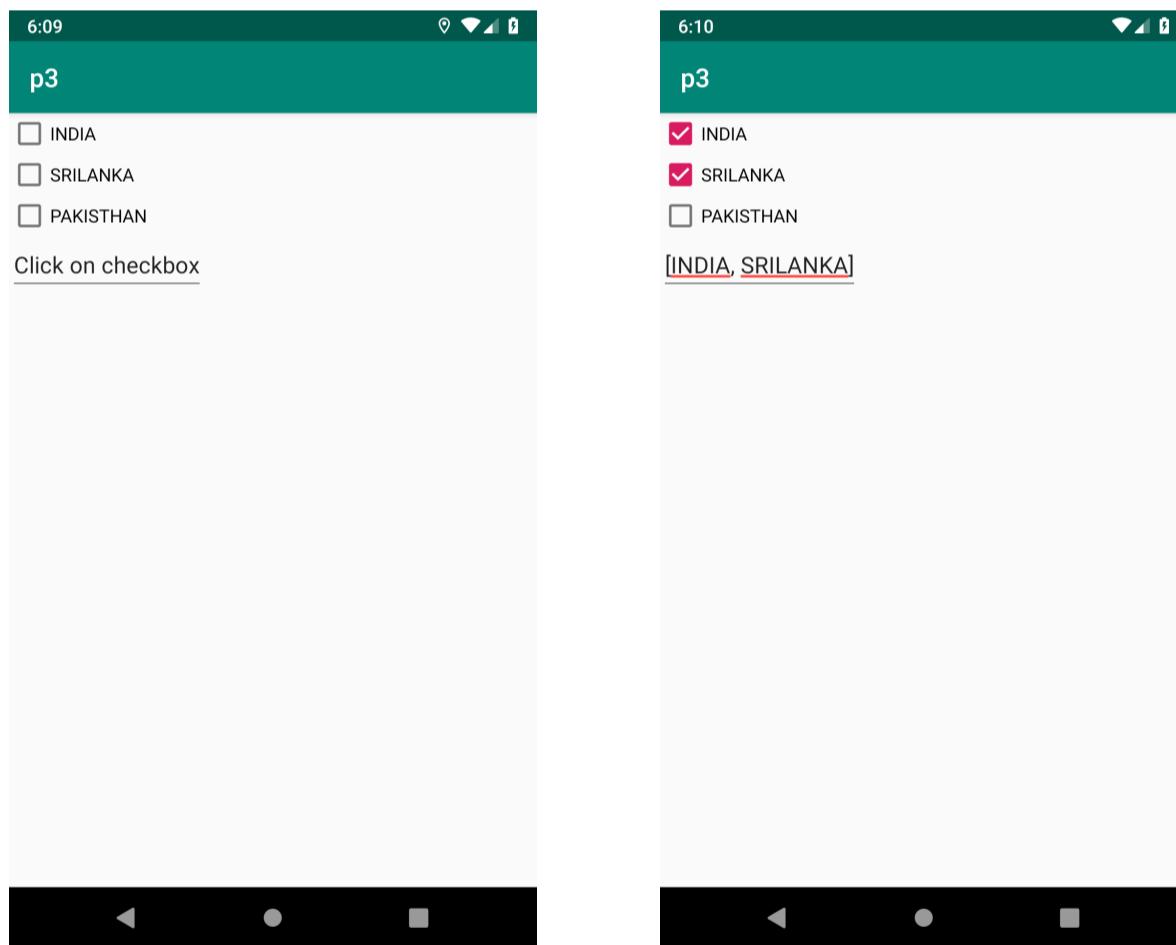
public class MainActivity extends AppCompatActivity {
    EditText et;
    CheckBox cb1,cb2,cb3;
    ArrayList<String> s = new ArrayList<String>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        et=findViewById(R.id.tv);
        cb1=findViewById(R.id.india);
        cb2=findViewById(R.id.sri);
        cb3=findViewById(R.id.paki);

        cb1.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                {
                    s.add("INDIA");
                    et.setText(s.toString());
                }
                else {
                    s.remove("INDIA");
                    et.setText(s.toString());
                }
            }
        });
        cb2.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                {
                    s.add("SRILANKA");
                    et.setText(s.toString());
                }
                else {
                    s.remove("SRILANKA");
                    et.setText(s.toString());
                }
            }
        });
        cb3.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
```

```
public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {  
    if(isChecked)  
    {  
        s.add("PAKISTAN");  
        et.setText(s.toString());  
    }  
    else {  
        s.remove("PAKISTAN");  
        et.setText(s.toString());  
    }  
}  
});  
}  
}
```

SCREENSHOT



Project - 4

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

XML CODE

```
<<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:orientation="vertical"
    tools:context=".MainActivity">
    <ToggleButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tb"/>
    <ToggleButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tb1"/>
    <Button
        android:id="@+id/b"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@android:string/VideoView_error_button" />
</LinearLayout>
```

JAVA CODE

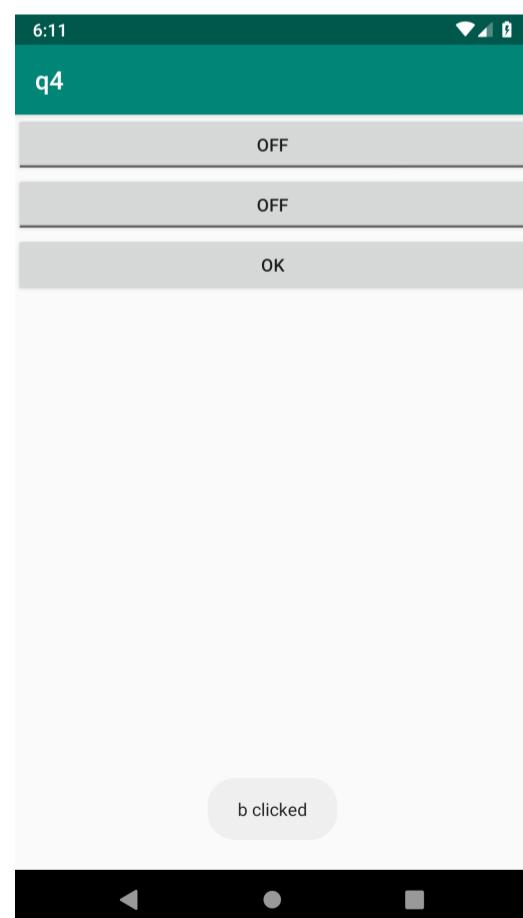
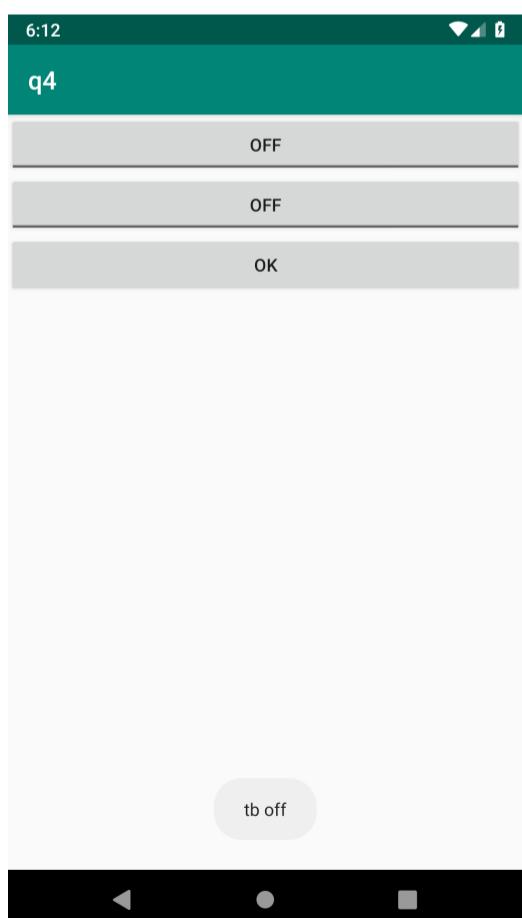
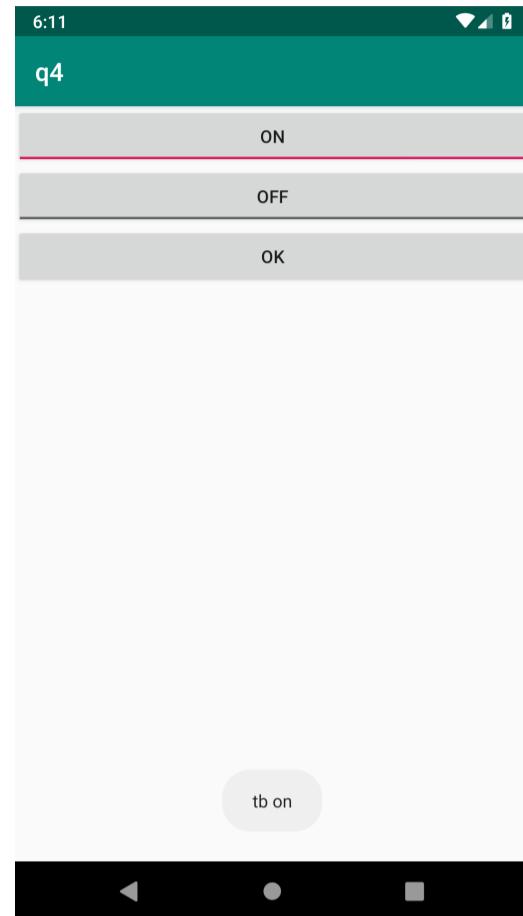
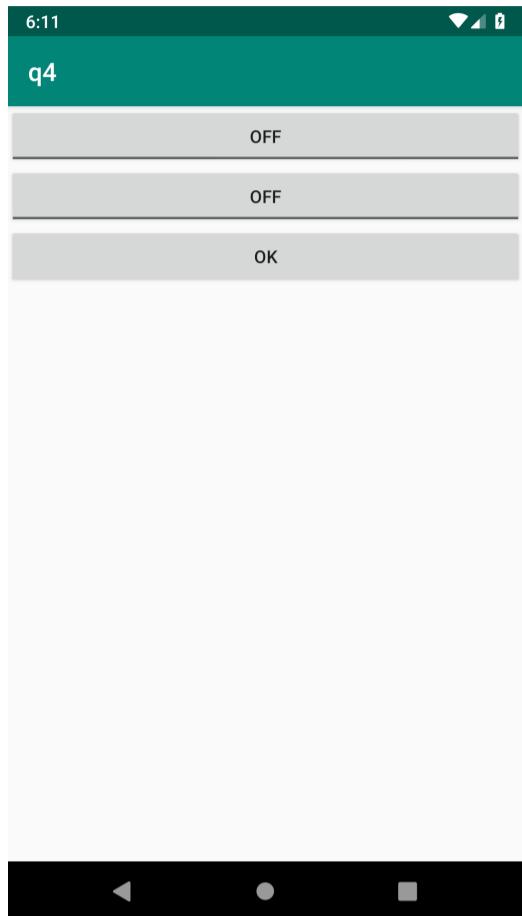
```
package com.sashwat.q4;

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

public class MainActivity extends AppCompatActivity {
    ToggleButton tb;
    ToggleButton tb1;
    Button b;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tb=findViewById(R.id.tb);
        tb1=findViewById(R.id.tb1);
        b=findViewById(R.id.b);
        tb.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                    Toast.makeText(getApplicationContext(),"tb
on",Toast.LENGTH_LONG).show();
                else
                    Toast.makeText(getApplicationContext(),"tb
off",Toast.LENGTH_LONG).show();
            }
        });
        tb1.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if(isChecked)
                    Toast.makeText(getApplicationContext(),"tb1
on",Toast.LENGTH_LONG).show();
                else
                    Toast.makeText(getApplicationContext(),"tb1
off",Toast.LENGTH_LONG).show();
            }
        });
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(getApplicationContext(),"b
clicked",Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

SCREENSHOT



Project - 5

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 CODE

```
<?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:orientation="vertical"
    tools:context=".MainActivity">
    <RadioGroup
        android:id="@+id/gender"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <RadioButton
            android:id="@+id/male"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:text="Male"/>
        <RadioButton
            android:id="@+id/female"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:text="Female"/>
    </RadioGroup>
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tv"
        android:text="Selected gender: none"/>
</LinearLayout>
```

JAVA CODE

```
package com.sashwat.q5;

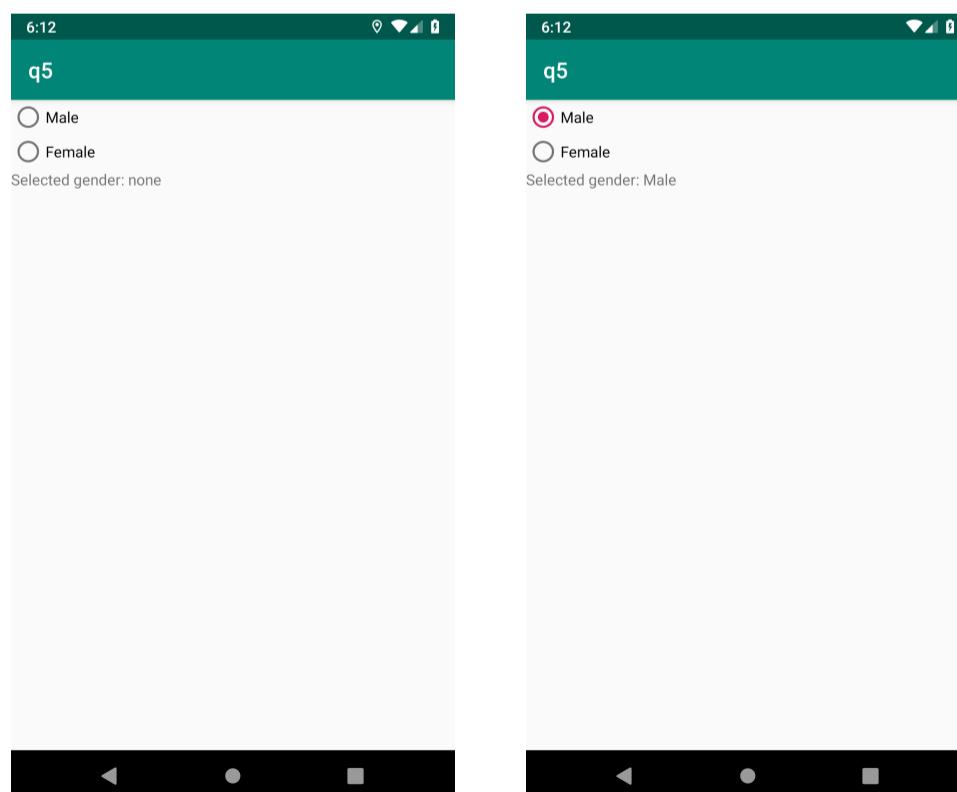
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    RadioGroup rg;
    RadioButton rb;
    TextView tv;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        rg=findViewById(R.id.gender);
        tv=findViewById(R.id.tv);
        rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(RadioGroup group, int checkedId) {
                int selectedId = rg.getCheckedRadioButtonId();

                // find the radiobutton by returned id
                rb = (RadioButton) findViewById(selectedId);
                tv.setText("Selected gender: " + rb.getText());
            }
        });
    }
}
```

SCREENSHOT



Project - 6

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

XML CODE

```
<?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">

    <AutoCompleteTextView
        android:id="@+id/autoCompleteTextView"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="104dp"
        android:layout_marginLeft="104dp"
        android:layout_marginTop="256dp"
        android:text=""
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

JAVA CODE

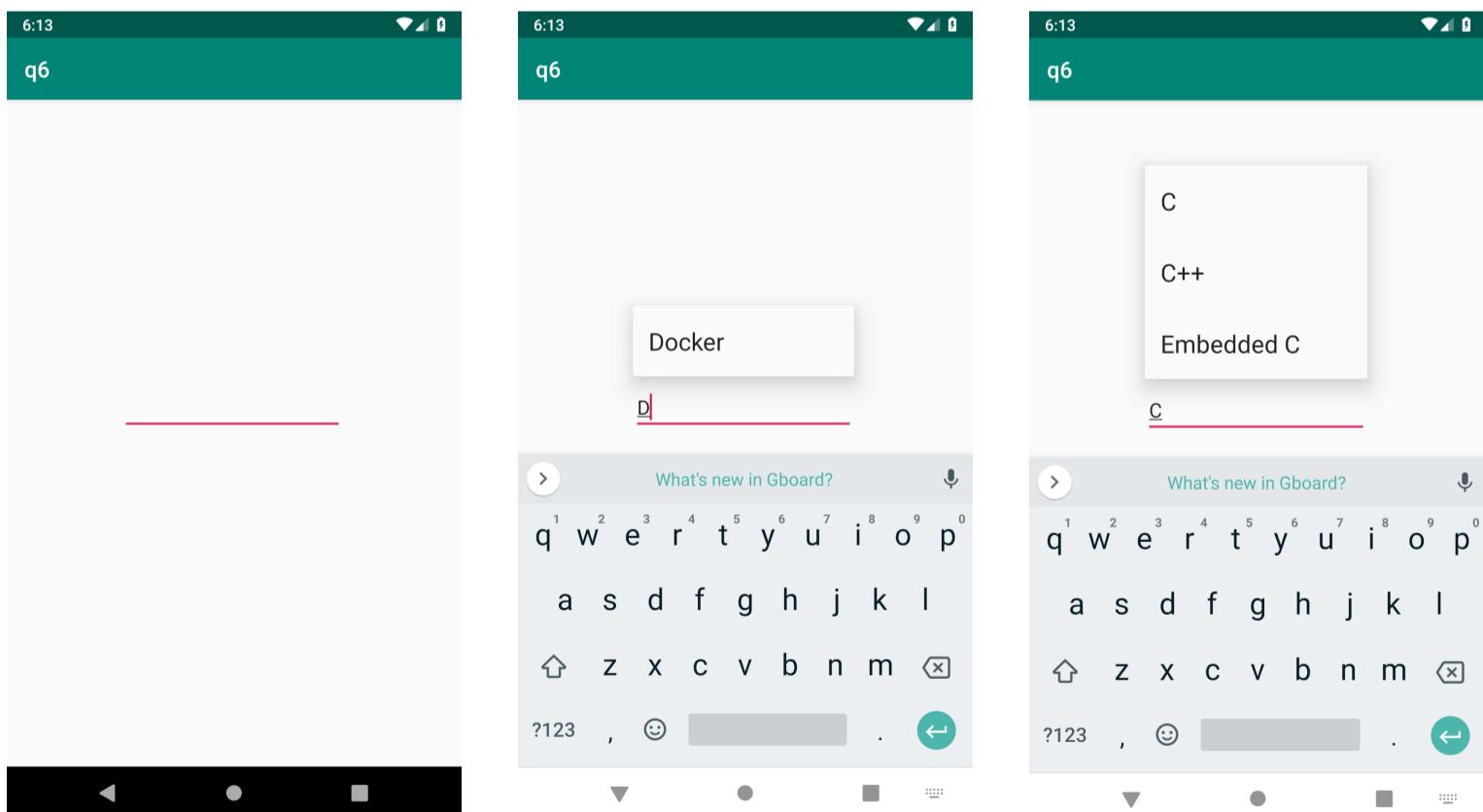
```
package com.sashwat.q6;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;

public class MainActivity extends AppCompatActivity {
    String[] language = {"C", "C++", "Java", "PHP", "Docker", "Lisp", "Embedded C", "Javascript"};

    @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, language);
        //Getting the instance of AutoCompleteTextView
        AutoCompleteTextView actv =
        (AutoCompleteTextView) findViewById(R.id.autoCompleteTextView);
        actv.setThreshold(1); //will start working from first character
        actv.setAdapter(adapter); //setting the adapter data into the AutoCompleteTextView
    }
}
```

SCREENSHOT



Project - 7

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)

XML CODE

```
<?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 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:orientation="vertical"
        tools:context=".MainActivity">
        <ImageView
            android:layout_width="match_parent"
            android:layout_height="0dp"
            android:src="@drawable/android1"
            android:layout_weight="10"
            android:id="@+id/image"/>
        <Button
            android:id="@+id/b"
            android:layout_width="match_parent"
            android:layout_height="0dp"
            android:text="Change Image"
            android:layout_weight="1"/>
    </LinearLayout>

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

JAVA CODE

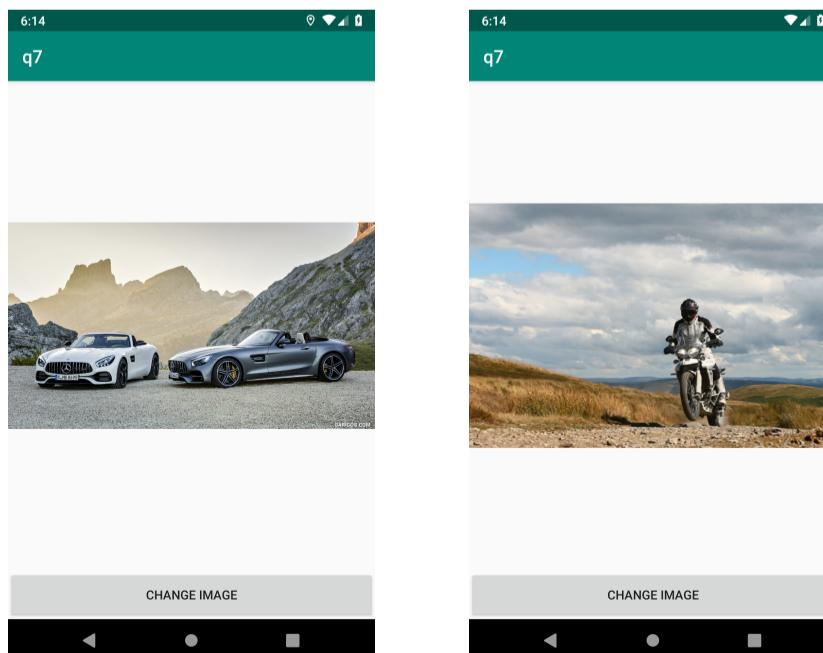
```
package com.sashwat.q7;

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 {
    ImageView iv;
    Button b;
    int i=0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        iv=findViewById(R.id.image);
        b=findViewById(R.id.b);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(i==0)
                {
                    iv.setImageResource(R.drawable.android1);
                    i=1;
                }else if(i==1)
                {
                    iv.setImageResource(R.drawable.android2);
                    i=0;
                }
            }
        });
    }
}
```

SCREENSHOT



Project - 8

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

XML CODE

```
<?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"
    android:id="@+id/layout1">

    <ImageButton
        android:id="@+id/simpleImageButtonGithub"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="8dp"
        android:layout_marginLeft="8dp"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginRight="8dp"
        android:layout_marginBottom="8dp"
        android:padding="20dp"
        android:scaleType="fitCenter"
        android:src="@drawable/github"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/simpleImageButtonDocker"
        app:layout_constraintVertical_bias="0.092" />

    <ImageButton
        android:id="@+id/simpleImageButtonDocker"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:layout_below="@+id/simpleImageButtonGithub"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="8dp"
        android:layout_marginLeft="8dp"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginRight="8dp"
        android:layout_marginBottom="8dp"
```

```

        android:background="#005"
        android:padding="20dp"
        android:scaleType="fitCenter"
        android:src="@drawable/docker"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.291" />

</android.support.constraint.ConstraintLayout>

```

JAVA CODE

```

package com.sashwat.q8;

import android.support.constraint.ConstraintLayout;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;

public class MainActivity extends AppCompatActivity {
    ConstraintLayout l1;

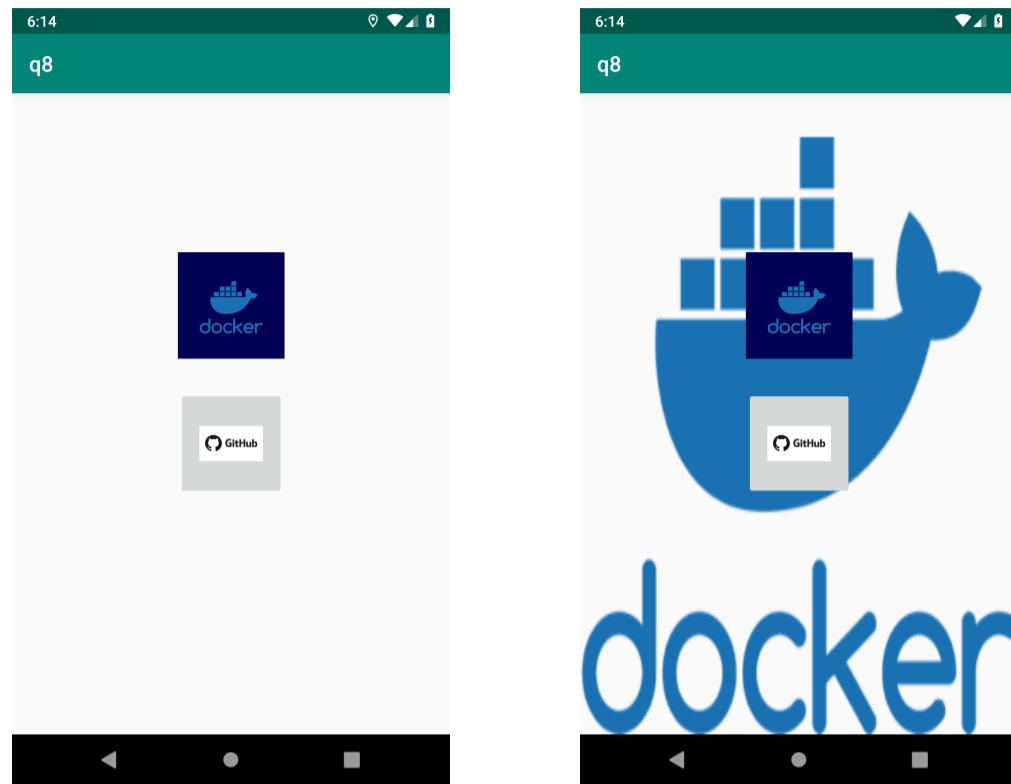
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        l1=findViewById(R.id.layout1);

        // initiate view's
        ImageButton simpleImageButtonHome =
        (ImageButton)findViewById(R.id.simpleImageButtonGithub);
        ImageButton simpleImageButtonYouTube =
        (ImageButton)findViewById(R.id.simpleImageButtonDocker);

        // perform click event on button's
        simpleImageButtonHome.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                l1.setBackgroundResource(R.drawable.github);
            }
        });
        simpleImageButtonYouTube.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                l1.setBackgroundResource(R.drawable.docker);
            }
        });
    }
}

```

SCREENSHOT



Project - 9

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

XML CODE

```
<?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">

    <TimePicker
        android:id="@+id/timepicker"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:layout_marginBottom="8dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.06"
        tools:layout_editor_absoluteX="0dp"></TimePicker>

    <Button
        android:id="@+id/b"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:layout_marginBottom="8dp"
        android:text="pick"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/timepicker"
        app:layout_constraintVertical_bias="0.145"
        tools:layout_editor_absoluteX="0dp" />

    <TextView
        android:id="@+id/tv"
        android:layout_width="match_parent"

        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:textAlignment="center"
        android:textSize="35dp"
        app:layout_constraintTop_toBottomOf="@+id/b"
        tools:layout_editor_absoluteX="0dp" />

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

JAVA CODE

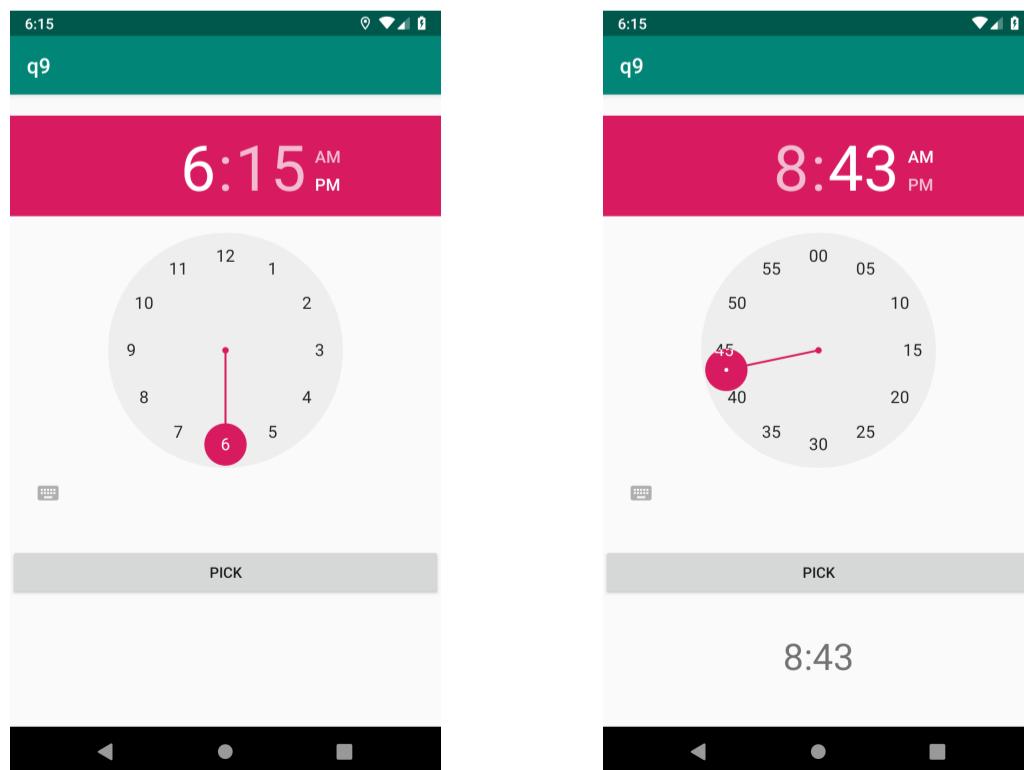
```
package com.sashwat.q9;

import android.os.Build;
import android.support.annotation.RequiresApi;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.TimePicker;

public class MainActivity extends AppCompatActivity {
    TimePicker tp;
    Button b;
    TextView tv;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tp=findViewById(R.id.timepicker);
        b=findViewById(R.id.b);
        tv=findViewById(R.id.tv);
        b.setOnClickListener(new View.OnClickListener() {
            @RequiresApi(api = Build.VERSION_CODES.M)
            @Override
            public void onClick(View v) {
                tv.setText(tp.getHour()+":"+tp.getMinute());
            }
        });
    }
}
```

SCREENSHOT



Project - 10

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

XML CODE

```
<?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">

    <DatePicker
        android:id="@+id/date_picker"
        android:layout_width="350dp"
        android:layout_height="277dp"
        android:layout_marginStart="8dp"
        android:layout_marginLeft="8dp"
        android:layout_marginTop="28dp"
        android:layout_marginEnd="8dp"
        android:layout_marginRight="8dp"
        android:layout_marginBottom="8dp"
        android:layout_weight="4"
        android:calendarViewShown="true"
        android:spinnersShown="false"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.488"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.076" />

    <Button
        android:id="@+id/b"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:layout_marginBottom="8dp"
        android:text="pick"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/date_picker"
        app:layout_constraintVertical_bias="0.13"
        tools:layout_editor_absoluteX="-16dp" />

    <TextView
```

```

    android:id="@+id/tv"
    android:layout_width="match_parent"

    android:layout_height="wrap_content"
    android:layout_marginTop="8dp"
    android:layout_marginBottom="8dp"
    android:textAlignment="center"
    android:textSize="35dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/b"
    app:layout_constraintVertical_bias="0.181"
    tools:layout_editor_absoluteX="0dp" />

</android.support.constraint.ConstraintLayout>

```

JAVA CODE

```

package com.sashwat.q10;

import android.os.Build;
import android.support.annotation.RequiresApi;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    DatePicker dp;
    Button b;
    TextView tv;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        dp=findViewById(R.id.date_picker);
        b=findViewById(R.id.b);
        tv=findViewById(R.id.tv);
        b.setOnClickListener(new View.OnClickListener() {
            @RequiresApi(api = Build.VERSION_CODES.M)
            @Override
            public void onClick(View v) {
                tv.setText(dp.getDayOfMonth()+"-"+dp.getMonth()+"-"+dp.getYear());
            }
        });
    }
}

```

SCREENSHOT

