MAD - CYCLE 1

1. Design Login page

Code:XML

```
<LinearLavout
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical"
 xmlns:android="http://schemas.android.com/apk/res/android">
 <TextView
   android:id="@+id/tv1"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:text="USER NAME"/>
 <EditText
   android:id="@+id/et1"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:hint="Enter Your Username"/>
 <TextView
   android:id="@+id/tv2"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:text="PASSWORD"/>
 <EditText
   android:id="@+id/et2"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:hint="Enter Your Password"/>
 <Button
   android:id="@+id/btn1"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:text="LOGIN"
   android:onClick="login"/>
 <Button
   android:id="@+id/btn2"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:text="CANCEL"
   />
</LinearLayout>
Code:Java
package com.example.sjcet.designloginpage;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle:
import android.view.View;
public class MainActivity extends AppCompatActivity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);
 public void Submit(View view) {
```



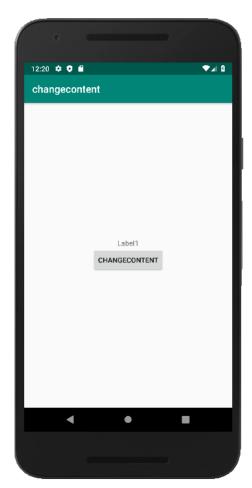
2. Change the content in the textview on a button click.

```
Code:XML
      <LinearLayout android:layout_height="match_parent"</pre>
      android:layout_width="match_parent" android:orientation="vertical"
 android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
 <TextView
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:id="@+id/tv1"
   android:text="Label1"/>
 <Button
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:id="@+id/b1"
   android:text="ChangeContent"
   android:onClick="Chnage"/>
</LinearLayout>
```

Code:JAVA

```
package com.example.sjcet.changecontent;
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 tv1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void Chnage(View view) {
        tv1=(TextView) findViewById(R.id.tv1);
        tv1.setText("New Content");
    }
}
```





3. Read a content from edittext and print it in a textview.

Code:XML

```
<LinearLayout
android:layout_height="match_parent"
android:layout_width="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<TextView</pre>
```

android:layout_width="wrap_content"

```
android:layout_height="wrap_content"
   android:id="@+id/tv1"
   android:text="Text1"/>
 <EditText
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:id="@+id/et1"
   android:hint="Enter the content"/>
 <Button
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:id="@+id/b1"
   android:text="ChangeText"
   android:onClick="changeLabelContent"/>
</LinearLayout>
code:JAVA
package com.example.sjcet.printcontentintextview;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
TextView tv1;
EditText et1;
 @Override
 protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);
 public void changeLabelContent(View view) {
 tv1=(TextView)findViewById(R.id.tv1);
 et1=(EditText)findViewById(R.id.et1);
 tv1.setText(et1.getText());
}
```





4. Change the background color on a button click.

Code:XML

LinearLayout linearLayout;

protected void onCreate(Bundle savedInstanceState) {

```
<LinearLayout
 android:layout_height="match_parent"
 android:layout_width="match_parent"
 android:orientation="vertical"
 android:gravity="center"
 android:id="@+id/l1"
 xmlns:android="http://schemas.android.com/apk/res/android" >
 <Button
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:id="@+id/b1"
   android:text="Change Color"
   android:onClick="Change"/>
</LinearLayout>
      Code:Java
package com.example.sjcet.changebgcolor;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.LinearLayout;
public class MainActivity extends AppCompatActivity {
 Button btn;
 View v;
 boolean isColor = true;
```

```
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
v = this.getWindow().getDecorView();
btn = findViewById(R.id.b1);
linearLayout = findViewById(R.id.l1);
btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        linearLayout.setBackgroundResource(android.R.color.holo_blue_dark);
    }
});
}
public void ChangeColor(View view) {
    linearLayout.setBackgroundResource(R.color.colorPrimary);
}
```





5. Create a sample Calculator.

Code:XML

```
<RelativeLayout android:layout_height="match_parent"
android:layout_width="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<EditText
android:id="@+id/edt1"</pre>
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
< Button
android:id="@+id/button1"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignEnd="@+id/button4"
android:layout_alignRight="@+id/button4"
android:layout_below="@+id/edt1"
android:layout_marginTop="94dp"
android:text="1" />
<Button
android:id="@+id/button2"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignTop="@+id/button1"
android:layout_toLeftOf="@+id/button3"
android:layout_toStartOf="@+id/button3"
android:text="2"/>
<Button
android:id="@+id/button3"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignTop="@+id/button2"
android:layout_centerHorizontal="true"
android:text="3" />
<Button
android:id="@+id/button4"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/button1"
android:layout toLeftOf="@+id/button2"
android:text="4" />
<Button
android:id="@+id/button5"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignBottom="@+id/button4"
android:layout_alignLeft="@+id/button2"
android:layout_alignStart="@+id/button2"
android:text="5" />
<Button
android:id="@+id/button6"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignLeft="@+id/button3"
android:layout_alignStart="@+id/button3"
android:layout_below="@+id/button3"
android:text="6"/>
<Button
android:id="@+id/button7"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/button4"
android:layout_toLeftOf="@+id/button2"
android:text="7" />
```

```
<Button
android:id="@+id/button8"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignLeft="@+id/button5"
android:layout alignStart="@+id/button5"
android:layout_below="@+id/button5"
android:text="8" />
<Button
android:id="@+id/button9"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignLeft="@+id/button6"
android:layout_alignStart="@+id/button6"
android:layout_below="@+id/button6"
android:text="9" />
<Button
 android:id="@+id/buttonadd"
 style="?android:attr/buttonStyleSmall"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignTop="@+id/button3"
 android:layout_alignEnd="@+id/edt1"
 android:layout_alignRight="@+id/edt1"
 android:layout marginStart="46dp"
 android:layout_marginLeft="3dp"
 android:layout_marginTop="5dp"
 android:layout_marginEnd="43dp"
 android:layout_marginRight="43dp"
 android:layout_toRightOf="@+id/button3"
 android:text="+"/>
<Button
android:id="@+id/buttonsub"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignEnd="@+id/buttonadd"
android:layout_alignLeft="@+id/buttonadd"
android:layout_alignRight="@+id/buttonadd"
android:layout_alignStart="@+id/buttonadd"
android:layout_below="@+id/buttonadd"
android:text="-" />
<Button
 android:id="@+id/buttonmul"
 style="?android:attr/buttonStyleSmall"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignEnd="@+id/buttonsub"
 android:layout_alignLeft="@+id/buttonsub"
 android:layout_alignRight="@+id/buttonsub"
 android:layout_alignStart="@+id/buttonsub"
 android:layout_below="@+id/buttonsub"
 android:text="*"/>
<Button
android:id="@+id/button10"
style="?android:attr/buttonStyleSmall"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/button7"
android:layout_toLeftOf="@+id/button2"
android:text="."/>
```

```
android:id="@+id/button0"
 style="?android:attr/buttonStyleSmall"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignLeft="@+id/button8"
 android:layout_alignStart="@+id/button8"
 android:layout_below="@+id/button8"
 android:text="0" />
 <Button
 android:id="@+id/buttonC"
 style="?android:attr/buttonStyleSmall"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignLeft="@+id/button9"
 android:layout_alignStart="@+id/button9"
 android:layout_below="@+id/button9"
 android:text="C" />
 <Button
 android:id="@+id/buttondiv"
 style="?android:attr/buttonStyleSmall"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignEnd="@+id/buttonmul"
 android:layout_alignLeft="@+id/buttonmul"
 android:layout_alignRight="@+id/buttonmul"
 android:layout_alignStart="@+id/buttonmul"
 android:layout_below="@+id/buttonmul"
 android:text="/"/>
 <Button
 android:id="@+id/buttoneql"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_alignEnd="@+id/buttondiv"
 android:layout_alignLeft="@+id/button10"
 android:layout_alignRight="@+id/buttondiv"
 android:layout_alignStart="@+id/button10"
 android:layout_below="@+id/button0"
 android:layout_marginTop="37dp"
 android:text="="/>
 </RelativeLayout>
      Code:Java
      package com.example.sjcet.samplecalculator;
import android.os.Bundle:
import android.support.v7.app.AppCompatActivity;
import android.view.View:
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
 Button button0, button1, button2, button3, button4, button5, button6,
     button7, button8, button9, buttonAdd, buttonSub, buttonDivision,
 buttonMul, button10, buttonC, buttonEqual;
 EditText crunchifyEditText;
 float mValueOne, mValueTwo;
 boolean crunchifyAddition, mSubtract, crunchifyMultiplication, crunchifyDivision;
 @Override
 protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);
```

button0 = findViewById(R.id.button0);

<Button

```
button1 = findViewById(R.id.button1);
button2 = findViewById(R.id.button2);
button3 = findViewById(R.id.button3);
button4 = findViewById(R.id.button4);
button5 = findViewById(R.id.button5);
button6 = findViewById(R.id.button6);
button7 = findViewById(R.id.button7);
button8 = findViewById(R.id.button8);
button9 = findViewById(R.id.button9);
button10 = findViewById(R.id.button10);
buttonAdd =findViewById(R.id.buttonadd);
buttonSub = findViewById(R.id.buttonsub);
buttonMul = findViewById(R.id.buttonmul);
buttonDivision = findViewById(R.id.buttondiv);
buttonC =findViewById(R.id.buttonC);
buttonEqual =findViewById(R.id.buttoneql);
crunchifyEditText =findViewById(R.id.edt1);
button1.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    crunchifyEditText.setText(crunchifyEditText.getText() + "1");
});
button2.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "2");
});
button3.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "3");
});
button4.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "4");
});
button5.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "5");
});
button6.setOnClickListener(new View.OnClickListener() {
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "6");
});
button7.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "7");
});
button8.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "8");
```

```
}
});
button9.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "9");
});
button0.setOnClickListener(new View.OnClickListener() {
  public void onClick(View v) {
   crunchifyEditText.setText(crunchifyEditText.getText() + "0");
});
buttonAdd.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   if (crunchifyEditText == null) {
     crunchifyEditText.setText("");
     mValueOne = Float.parseFloat(crunchifyEditText.getText() + "");
     crunchifyAddition = true;
     crunchifyEditText.setText(null);
  }
});
buttonSub.setOnClickListener(new View.OnClickListener() {
  public void onClick(View v) {
   mValueOne = Float.parseFloat(crunchifyEditText.getText() + "");
   mSubtract = true;
   crunchifyEditText.setText(null);
 }
});
buttonMul.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   mValueOne = Float.parseFloat(crunchifyEditText.getText() + "");
   crunchifyMultiplication = true;
   crunchifyEditText.setText(null);
 }
});
buttonDivision.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   mValueOne = Float.parseFloat(crunchifyEditText.getText() + "");
   crunchifyDivision = true;
   crunchifyEditText.setText(null);
});
buttonEqual.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
   mValueTwo = Float.parseFloat(crunchifyEditText.getText() + "");
   if (crunchifyAddition == true) {
     crunchifyEditText.setText(mValueOne + mValueTwo + "");
     crunchifyAddition = false;
   if (mSubtract == true) {
     crunchifyEditText.setText(mValueOne - mValueTwo + "");
     mSubtract = false;
   if (crunchifyMultiplication == true) {
```

```
crunchifyEditText.setText(mValueOne * mValueTwo + "");
         crunchifyMultiplication = false;
        if (crunchifyDivision == true) {
         crunchifyEditText.setText(mValueOne / mValueTwo + "");
         crunchifyDivision = false;
       }
      }
    });
    buttonC.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        crunchifyEditText.setText("");
    });
    button10.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        crunchifyEditText.setText(crunchifyEditText.getText() + ".");
   });
}
```









MAD LAB CYCLE -2

1. Create 2 Activities from 1st Activity on click move to 2nd activity (Using Intent)

Program code:

Xml code

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:id="@+id/activity_main"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical">
 <TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:text="First Activity"
   android:textStyle="bold"
   android:layout_marginTop="10dp"
   android:textAlignment="center"
   style="@style/Animation.AppCompat.Dialog"
   android:textSize="30dp"/>
   android:text="Click Me"
   android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"
android:id="@+id/button"
android:onClick="click"
android:textStyle="bold"
android:layout_marginTop="200dp"
android:background="#34eb3a"
android:textSize="30dp"/>
</LinearLayout>
```

Activity2 main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
 android:id="@+id/activity_main2"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical">
 <TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:text="Second Activity"
   android:textStyle="bold"
   android:layout_marginTop="10dp"
   android:textSize="30dp"
   android:textAlignment="center"/>
 <Button
   android:text="Go Back"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:id="@+id/button2"
   android:onClick="clickback"
   android:textSize="30dp"
   android:background="#34eb3a"
   android:layout_marginTop="200dp"/>
</LinearLayout>
```

Java

Activity main.java:

```
package com.example.sjcet.pgm1_2activity;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void click(View view) {
        Intent intent = new Intent(MainActivity.this, Main2Activity.class);
        startActivity(intent);
    }
}
```

Activity2 main.java:

```
package com.example.sjcet.pgm1_2activity;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
public class Main2Activity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }
    public void clickback(View view) {
        Intent intent = new Intent(Main2Activity.this, MainActivity.class);
        startActivity(intent);
    }
}
```

Output





2. Create an Activity and move to facebook login page on a button click (making use of Intent).

Program code:

Xml code

```
Activity main.xml:
```

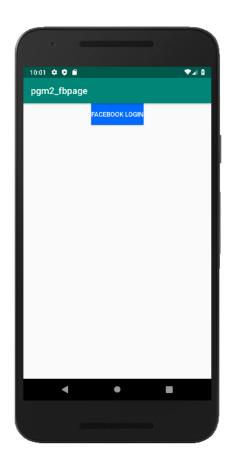
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout android:layout_width="match_parent"</pre>
 android:layout_height="match_parent"
 android:orientation="vertical"
 xmlns:android="http://schemas.android.com/apk/res/android">
 <Button
   android:onClick="click"
   android:layout width="wrap content"
   android:layout_height="wrap_content"
   android:text="Facebook login"
   android:layout_centerInParent="true"
   android:textAlignment="center"
   android:layout_gravity="center"
   android:background="#006aff"
   android:textColor="#fff"/>
</LinearLayout>
```

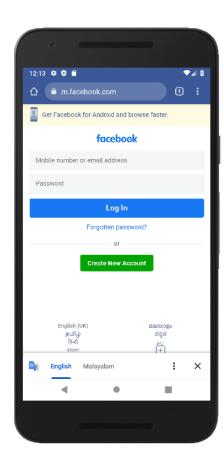
Java

Activity main.java:

```
package com.example.sjcet.pgm2_fbpage;
import android.content.Intent;
import android.net.Uri;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```
public void click(View view) {
   String url = "https://www.facebook.com";
   Intent i = new Intent(Intent.ACTION_VIEW);
   i.setData(Uri.parse(url));
   startActivity(i);
}
```





3. Read message from 1st Activity and pass it onto the 2nd Activity on a button click.

Xml code Activity main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:id="@+id/activity_main"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical">
 <TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:text="First Activity"
   android:textStyle="bold"
   android:layout_marginTop="10dp"
   android:textAlignment="center"
   android:textSize="30dp"/>
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:hint="Text"
   android:textColor="#000000"
   android:textSize="20dp"
   android:textStyle="bold"
   android:id="@+id/text"/>
 <Button
   android:text="Click here"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:id="@+id/button"
   android:onClick="click"
   android:textStyle="bold"
   android:textSize="30dp"
   android:background="#ff00ae"
   android:textColor="#fff"
   android:layout_gravity="center_vertical" />
</LinearLayout>
```

Activity2 main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/activity_main2"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical">
```

```
<TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:text="Second Activity"
   android:textStyle="bold"
   android:layout_marginTop="10dp"
   android:textAlignment="center"
   android:textSize="30dp"/>
 <TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:textSize="30dp"
   android:textColor="#000000"
   android:id="@+id/textreceived"
   />
 <Button
   android:text="Go Back"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:id="@+id/button2"
   android:textSize="30dp"
   android:background="#ff00ae"
   android:onClick="click"/>
</LinearLayout>
```

Java

Activity main.java:

```
package com.example.sjcet.pgm3 copymsg;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
  EditText text:
  Button clickme;
  String Texthere;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    clickme = findViewById(R.id.button);
    text = findViewById(R.id.text);
    clickme.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        Texthere = text.getText().toString();
        Intent intent = new Intent(MainActivity.this, Main2Activity.class);
        intent.putExtra("Text", Texthere);
        startActivity(intent);
    });
}
```

Activity2 main.java:

```
package com.example.sjcet.pgm3_copymsg;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
```

```
import android.os.Bundle;
 import android.view.View;
 import android.widget.Button;
 import android.widget.TextView;
 public class Main2Activity extends AppCompatActivity {
  TextView textreceived;
   Button button2;
  String text;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main2);
    text = getIntent().getExtras().getString("Text");
    textreceived = findViewById(R.id.textreceived);
    textreceived.setText(text);
    button2 = findViewById(R.id.button2);
    button2.setOnClickListener(new View.OnClickListener() {
      public void onClick(View v) {
        Intent intent = new Intent(Main2Activity.this, MainActivity.class);
        startActivity(intent);
);
});
}
```

4.Create registration page with full validation and pass the information to the second activity (using shared preference)

Mandatory fields: fname,Iname,gender,email,phone number,password,dob(date picker)

Program code:

Xml code

Activity main.xml:

```
<ScrollView xmlns:tools="http://schemas.android.com/tools"</p>
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 xmlns:android="http://schemas.android.com/apk/res/android"
 tools:context=".MainActivity">
 <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   android:layout_width="match_parent"
   android:layout height="match parent"
   android:orientation="vertical"
   android:padding="10dp">
   <TextView
     android:layout_width="match_parent"
     android:layout_height="wrap_content"
     android:background="@color/colorAccent"
     android:text="Register"
     android:textAlignment="center"
     android:textColor="#00fff7"
     android:textSize="15dp"
     android:textStyle="bold" />
   <TextView
     android:layout_width="wrap_content"
     android:layout_height="wrap_content"
     android:layout_gravity="center"
     android:text="Firstname"
     android:textStyle="bold" />
   <EditText
     android:id="@+id/fname"
     android:layout width="match parent"
     android:layout_height="wrap_content"
     android:background="#fff"
     android:hint="Enter Firstname" />
   <TextView
     android:layout_width="wrap_content"
     android:layout_height="wrap_content"
     android:layout_gravity="center"
     android:text="Lastname"
     android:textStyle="bold" />
   <EditText
     android:id="@+id/Iname"
     android:layout_width="match_parent"
     android:layout_height="wrap_content"
     android:background="#fff"
    android:hint="Enter Lastname" />
   <TextView
     android:layout_width="wrap_content"
     android:layout_height="wrap_content"
     android:layout gravity="center"
     android:text="Gender"
     android:textStyle="bold" />
```

```
< Radio Group
 android:id="@+id/gender"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:orientation="horizontal">
 < Radio Button
   android:id="@+id/male"
  android:layout_width="139dp"
  android:layout_height="22dp"
  android:text="Male"/>
 < Radio Button
   android:id="@+id/female"
  android:layout_width="107dp"
  android:layout_height="22dp"
   android:text="Female" />
</RadioGroup>
<TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center"
 android:text="Email"
 android:textStyle="bold" />
<EditText
 android:id="@+id/email"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:background="#fff"
 android:hint="Enter Email" />
<TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center"
 android:text="Phone Number"
 android:textStyle="bold" />
<EditText
 android:id="@+id/phoneno"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:background="#fff"
 android:hint="Enter Phone Number" />
<TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center"
 android:text="password"
 android:textStyle="bold" />
<EditText
 android:id="@+id/password"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:background="#fff"
 android:hint="Enter password" />
<TextView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_gravity="center"
 android:text="Date of Birth"
 android:textStyle="bold" />
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
 android:layout_width="match_parent"
 android:layout_height="match_parent">
 < DatePicker
   android:id="@+id/dob"
```

```
android:layout_width="match_parent"
      android:layout_height="273dp"
      android:datePickerMode="spinner">
    </DatePicker>
   </ScrollView>
   <Button
    android:id="@+id/btsubmit"
    android:layout_width="match_parent"
    android:layout_height="23dp"
    android:layout_marginTop="10sp"
    android:background="@color/colorAccent"
    android:text="submit"
    android:textColor="#00fff7"
    android:textSize="15dp"
    android:textStyle="bold" />
 </LinearLavout>
</ScrollView>
```

Activity2 main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout android:layout_width="match_parent"</pre>
 android:layout_height="match_parent"
 xmlns:android="http://schemas.android.com/apk/res/android"
 android:orientation="vertical"
 android:layout_gravity="center">
 <TextView
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:textSize="25dp"
   android:textColor="#9eff0000"
   android:text="welcome"
   android:textAlignment="center"/>
 <TextView
   android:id="@+id/text_fullname"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:textSize="18dp"
   android:textColor="#9e001eff"
   android:text="full_name-"
   android:layout_gravity="center"
   android:textStyle="bold"
   android:layout_margin="20dp"/>
 <TextView
   android:id="@+id/text_email"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:textSize="18dp"
   android:textColor="#9e001eff"
   android:text="email-"
   android:layout_gravity="center"
   android:textStyle="bold"
   android:layout_margin="20dp"/>
 <Button
   android:id="@+id/blogout"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:text="Logout"
   android:layout_gravity="center"
   android:layout_margin="20dp"
   android:background="#00e6ff"/>
```

Java

Activity main.java:

```
package com.example.sjcet.pgm4 regvalid;
import android.content.Intent;
import android.content.SharedPreferences;
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.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
  EditText firstname, lastname, uemail, uphoneno, upassword;
  RadioGroup gender;
  DatePicker dob;
  Button btnsubmit;
  SharedPreferences sharedPreferences;
  private static final String SHARED_PREF_NAME = "mypref";
  private static final String KEY_NAME = "name";
private static final String KEY_EMAIL = "email";
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    firstname = findViewById(R.id.fname);
    lastname = findViewById(R.id.Iname);
    uemail = findViewById(R.id.email);
    uphoneno = findViewById(R.id.phoneno);
    upassword = findViewById(R.id.password);
    gender = findViewById(R.id.gender);
    dob = findViewById(R.id.dob);
    btnsubmit = findViewById(R.id.btsubmit);
    sharedPreferences = getSharedPreferences(SHARED_PREF_NAME,MODE_PRIVATE);
    String name = sharedPreferences.getString(KEY_NAME,null);
    if (name != null) {
      Intent intent = new Intent(MainActivity.this,Main2Activity.class);
      startActivity(intent);
    btnsubmit.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        SharedPreferences.Editor editor = sharedPreferences.edit();
        editor.putString(KEY_NAME,firstname.getText().toString());
        editor.putString(KEY_EMAIL,uemail.getText().toString());
        editor.apply();
        Intent intent = new Intent(MainActivity.this, Main2Activity.class);
        startActivity(intent);
        Toast.makeText(MainActivity.this, "", Toast.LENGTH_SHORT).show();
    });
}
```

Activity2 main.java:

```
package com.example.sjcet.pgm4 regvalid;
import android.content.SharedPreferences;
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.Toast;
public class Main2Activity extends AppCompatActivity {
 TextView text_fullname,text_email;
 Button blogout;
 SharedPreferences sharedPreferences;
 private static final String SHARED_PREF_NAME = "mypref";
 private static final String KEY_NAME = "name";
 private static final String KEY_EMAIL = "email";
 @Override
 protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main2);
   text_email = findViewById(R.id.text_email);
   text_fullname = findViewById(R.id.text_fullname);
   blogout = findViewById(R.id.blogout);
   sharedPreferences = getSharedPreferences(SHARED_PREF_NAME,MODE_PRIVATE);
   String name = sharedPreferences.getString(KEY_NAME,null);
   String email = sharedPreferences.getString(KEY_EMAIL, null);
   if (name != null || email != null){
     text fullname.setText("Full Name- "+name);
     text email.setText("Email ID- "+email);
   blogout.setOnClickListener(new View.OnClickListener() {
     @Override
     public void onClick(View v) {
       SharedPreferences.Editor editor = sharedPreferences.edit();
       editor.clear();
       editor.commit();
       finish();
       Toast.makeText(Main2Activity.this,"logged out
successfully",Toast.LENGTH_SHORT).show();
   });
```

Output

MAD - CYCLE 3

```
1.Design a simple login page using Relative layout
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:id="@+id/activity main"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="#00CC99">
  <EditText
    android:id="@+id/text1"
    android:hint="Username"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout_marginTop="150dp"
    android:layout marginLeft="18dp"
    android:layout marginRight="18dp"
    android:padding="8dp"
    android:background="#fff" />
```

```
<EditText
    android:id="@+id/text2"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout marginLeft="18dp"
    android:layout marginRight="18dp"
    android:padding="8dp"
    android:background="#fff"
    android:hint="Password"
    android:layout marginTop="12dp"
    android:layout below="@+id/text1" />
  <Button
    android:id="@+id/b1"
    android:layout width="match_parent"
    android:layout height="wrap content"
    android:text="Login"
    android:textColor="#00CC99"
    android:layout below="@+id/text2"
    android:layout marginTop="17dp"
    android:layout alignStart="@+id/text2"
    android:layout alignEnd="@+id/text2" />
  <TextView
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:id="@+id/text3"
    android:textColor="#fff"
    android:text="Not a member?Sign up now"
    android:layout_below="@+id/b1"
    android:layout centerHorizontal="true"
    android:layout marginTop="34dp" />
</RelativeLayout>
MainActivity.java
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
  }
2. Array adapter with list 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">
  <ListView
    android:id="@+id/simpleListView"
    android:layout width="match parent"
    android:layout height="wrap content" />
</RelativeLayout>
Layout.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  android:layout width="match parent"
  android:layout height="match parent"
  android:orientation="vertical">
  <TextView
    android:id="@+id/itemTextView"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout gravity="center" />
</LinearLayout>
MainActivity.java
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
       ListView simpleListView;
       // array objects
       String courseList[] = {"C-Programming", "Data Structure", "Database", "Python",
                                                 "Java", "Operating System", "Compiler
Design", "Android Development"};
       @Override
       protected void onCreate(Bundle savedInstanceState) {
              super.onCreate(savedInstanceState);
              setContentView(R.layout.activity main);
              simpleListView = (ListView) findViewById(R.id.simpleListView);
```

```
ArrayAdapter<String> arrayAdapter = new ArrayAdapter<String>(this,
                            R.layout.item view, R.id.itemTextView, courseList);
              simpleListView.setAdapter(arrayAdapter);
       }
3. Develop an application that toggle image using frame layout
Mainactivity.xml
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:layout width="fill parent"
  android:layout height="fill parent">
<ImageView
  android:id="@+id/imageview"
  android:layout width="fill parent"
  android:layout height="fill parent"
  android:scaleType="fitCenter"
  android:src="@drawable/piq1" />
<Button
  android:id="@+id/next"
  android:layout width="wrap_content"
  android:layout height="30dp"
  android:layout marginBottom="15dp"
  android:layout marginRight="10dp"
  android:layout gravity="bottom|right"
  android:paddingTop="2dp"
  android:paddingBottom="2dp"
  android:background="@drawable/buttonback"
  android:textColor="#000000"
  android:text="Next" />
 </FrameLayout>
MainActivity.java
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class Piqlout extends Activity {
@Override
protected void onCreate(Bundle savedInstanceState) {
  // TODO Auto-generated method stub
  super.onCreate(savedInstanceState);
  setContentView(R.layout.piq);
  Button next= (Button) findViewById(R.id.next);
```

```
if (next.getText().equals("Next")) {
  next.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
       // TODO Auto-generated method stub
       ImageView img = (ImageView) findViewById(R.id.imageview);
       img.setImageResource(R.drawable.piq2);
       Button next= (Button) findViewById(R.id.next);
       next.setText("Prev");
  if (next.getText().equals("Prev")){
  next.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
       // TODO Auto-generated method stub
          ImageView img = (ImageView)
                                          findViewById(R.id.imageview);
          img.setImageResource(R.drawable.piq1);
          Button next= (Button) findViewById(R.id.next);
          next.setText("Next");
4. Demonstrate activity lifecycle
Mainactivity.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>
MainActivity.java
package example.javatpoint.com.activitylifecycle;
import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
public class MainActivity extends Activity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    Log.d("lifecycle","onCreate invoked");
  @Override
  protected void onStart() {
    super.onStart();
    Log.d("lifecycle", "onStart invoked");
  @Override
  protected void onResume() {
    super.onResume();
    Log.d("lifecycle","onResume invoked");
  @Override
  protected void onPause() {
    super.onPause();
    Log.d("lifecycle","onPause invoked");
  @Override
  protected void onStop() {
    super.onStop();
    Log.d("lifecycle", "onStop invoked");
  @Override
  protected void onRestart() {
    super.onRestart();
    Log.d("lifecycle","onRestart invoked");
  }
```

```
@Override
  protected void onDestroy() {
    super.onDestroy();
    Log.d("lifecycle","onDestroy invoked");
  }
5. Taking camera with list view
Mainactivity.xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="https://schemas.android.com/apk/res/android"</p>
  xmlns:app="https://schemas.android.com/apk/res-auto"
  xmlns:tools="https://schemas.android.com/tools"
  android:id="@+id/content main"
  android:layout width="match parent"
  android:layout_height="match_parent"
  android:paddingBottom="@dimen/activity vertical margin"
  android:paddingLeft="@dimen/activity horizontal margin"
  android:paddingRight="@dimen/activity horizontal margin"
  android:paddingTop="@dimen/activity vertical margin"
  android:background="#000000"
  app:layout behavior="@string/appbar scrolling view behavior"
  tools:context="com.journaldev.imagepicker.MainActivity"
  tools:showIn="@layout/activity main">
  <RelativeLayout
    android:layout width="250dp"
    android:layout height="250dp"
    android:layout centerHorizontal="true"
    android:layout centerVertical="true"
    android:background="@drawable/image border"
    android:clickable="true"
    android:orientation="vertical">
    <ImageView
       android:id="@+id/imageView"
       android:layout width="match parent"
       android:layout height="match parent"
       android:adjustViewBounds="true"
       android:scaleType="centerCrop" />
  </RelativeLayout>
  <de.hdodenhof.circleimageview.CircleImageView
    android:id="@+id/img profile"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout gravity="center horizontal"
    android:src="@drawable/profile"
```

```
app:civ border width="5dp"
    app:civ border color="#FFFFFF"
    android:layout alignParentBottom="true"
    android:layout centerHorizontal="true" />
</RelativeLayout>
MainActivity.java
public class MainActivity extends AppCompatActivity {
  Bitmap myBitmap;
  Uri picUri;
  private ArrayList permissionsToRequest;
  private ArrayList permissionsRejected = new ArrayList();
  private ArrayList permissions = new ArrayList();
  private final static int ALL PERMISSIONS RESULT = 107;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
    setSupportActionBar(toolbar);
    FloatingActionButton fab = (FloatingActionButton) findViewById(R.id.fab);
    fab.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
         startActivityForResult(getPickImageChooserIntent(), 200);
    });
    permissions.add(CAMERA);
    permissionsToRequest = findUnAskedPermissions(permissions);
    //get the permissions we have asked for before but are not granted...
    //we will store this in a global list to access later.
    if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.M) {
       if (permissionsToRequest.size() > 0)
         requestPermissions(permissionsToRequest.toArray(new
String[permissionsToRequest.size()]), ALL PERMISSIONS RESULT);
  }
```

```
@Override
  public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.menu main, menu);
    return true;
  }
  @Override
  public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();
    //noinspection SimplifiableIfStatement
    if (id == R.id.action settings) {
       return true:
     }
    return super.onOptionsItemSelected(item);
  /**
   * Create a chooser intent to select the source to get image from. <br/> <br/> >
   * The source can be camera's (ACTION IMAGE CAPTURE) or gallery's
(ACTION GET CONTENT).<br/>
   * All possible sources are added to the intent chooser.
  public Intent getPickImageChooserIntent() {
    // Determine Uri of camera image to save.
    Uri outputFileUri = getCaptureImageOutputUri();
    List allIntents = new ArrayList();
    PackageManager packageManager = getPackageManager();
    // collect all camera intents
    Intent captureIntent = new
Intent(android.provider.MediaStore.ACTION IMAGE CAPTURE);
    List listCam = packageManager.queryIntentActivities(captureIntent, 0);
    for (ResolveInfo res: listCam) {
       Intent intent = new Intent(captureIntent);
       intent.setComponent(new ComponentName(res.activityInfo.packageName,
res.activityInfo.name));
       intent.setPackage(res.activityInfo.packageName);
       if (outputFileUri != null) {
         intent.putExtra(MediaStore.EXTRA OUTPUT, outputFileUri);
```

```
allIntents.add(intent);
     }
    // collect all gallery intents
    Intent galleryIntent = new Intent(Intent.ACTION GET CONTENT);
    galleryIntent.setType("image/*");
    List listGallery = packageManager.queryIntentActivities(galleryIntent, 0);
    for (ResolveInfo res : listGallery) {
       Intent intent = new Intent(galleryIntent);
       intent.setComponent(new ComponentName(res.activityInfo.packageName,
res.activityInfo.name));
       intent.setPackage(res.activityInfo.packageName);
       allIntents.add(intent);
     }
    // the main intent is the last in the list (fucking android) so pickup the useless one
    Intent mainIntent = allIntents.get(allIntents.size() - 1);
    for (Intent intent : allIntents) {
       if
(intent.getComponent().getClassName().equals("com.android.documentsui.DocumentsActivi
ty")) {
         mainIntent = intent;
         break;
     }
    allIntents.remove(mainIntent);
    // Create a chooser from the main intent
    Intent chooserIntent = Intent.createChooser(mainIntent, "Select source");
    // Add all other intents
    chooserIntent.putExtra(Intent.EXTRA INITIAL INTENTS, allIntents.toArray(new
Parcelable[allIntents.size()]));
    return chooserIntent;
  }
   * Get URI to image received from capture by camera.
  private Uri getCaptureImageOutputUri() {
    Uri outputFileUri = null;
    File getImage = getExternalCacheDir();
    if (getImage != null) {
       outputFileUri = Uri.fromFile(new File(getImage.getPath(), "profile.png"));
    return outputFileUri;
  }
```

```
@Override
  protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    Bitmap bitmap;
    if (resultCode == Activity.RESULT OK) {
      ImageView imageView = (ImageView) findViewById(R.id.imageView);
      if (getPickImageResultUri(data) != null) {
         picUri = getPickImageResultUri(data);
         try {
           myBitmap = MediaStore.Images.Media.getBitmap(this.getContentResolver(),
picUri);
           myBitmap = rotateImageIfRequired(myBitmap, picUri);
           myBitmap = getResizedBitmap(myBitmap, 500);
           CircleImageView croppedImageView = (CircleImageView)
findViewById(R.id.img profile);
           croppedImageView.setImageBitmap(myBitmap);
           imageView.setImageBitmap(myBitmap);
         } catch (IOException e) {
           e.printStackTrace();
       } else {
         bitmap = (Bitmap) data.getExtras().get("data");
         myBitmap = bitmap;
         CircleImageView croppedImageView = (CircleImageView)
findViewById(R.id.img profile);
         if (croppedImageView != null) {
           croppedImageView.setImageBitmap(myBitmap);
         imageView.setImageBitmap(myBitmap);
      }
  }
  private static Bitmap rotateImageIfRequired(Bitmap img, Uri selectedImage) throws
IOException {
```

```
ExifInterface ei = new ExifInterface(selectedImage.getPath());
    int orientation = ei.getAttributeInt(ExifInterface.TAG ORIENTATION,
ExifInterface.ORIENTATION NORMAL);
    switch (orientation) {
       case ExifInterface.ORIENTATION ROTATE 90:
         return rotateImage(img, 90);
       case ExifInterface.ORIENTATION ROTATE 180:
         return rotateImage(img, 180);
       case ExifInterface.ORIENTATION ROTATE 270:
         return rotateImage(img, 270);
       default:
         return img;
  }
  private static Bitmap rotateImage(Bitmap img, int degree) {
    Matrix matrix = new Matrix();
    matrix.postRotate(degree);
    Bitmap rotatedImg = Bitmap.createBitmap(img, 0, 0, img.getWidth(), img.getHeight(),
matrix, true);
    img.recycle();
    return rotatedImg;
  public Bitmap getResizedBitmap(Bitmap image, int maxSize) {
    int width = image.getWidth();
    int height = image.getHeight();
    float bitmapRatio = (float) width / (float) height;
    if (bitmapRatio > 0) {
       width = maxSize;
       height = (int) (width / bitmapRatio);
    } else {
       height = maxSize;
       width = (int) (height * bitmapRatio);
    return Bitmap.createScaledBitmap(image, width, height, true);
  }
   * Get the URI of the selected image from {@link #getPickImageChooserIntent()}.<br/>
   * Will return the correct URI for camera and gallery image.
   * @param data the returned data of the activity result
  public Uri getPickImageResultUri(Intent data) {
    boolean isCamera = true;
    if (data != null) {
```

```
String action = data.getAction();
       isCamera = action != null &&
action.equals(MediaStore.ACTION IMAGE CAPTURE);
    return isCamera? getCaptureImageOutputUri(): data.getData();
  @Override
  protected void onSaveInstanceState(Bundle outState) {
    super.onSaveInstanceState(outState);
    // save file url in bundle as it will be null on scren orientation
    // changes
    outState.putParcelable("pic uri", picUri);
  @Override
  protected void onRestoreInstanceState(Bundle savedInstanceState) {
    super.onRestoreInstanceState(savedInstanceState);
    // get the file url
    picUri = savedInstanceState.getParcelable("pic uri");
  private ArrayList findUnAskedPermissions(ArrayList wanted) {
    ArrayList result = new ArrayList();
    for (String perm : wanted) {
       if (!hasPermission(perm)) {
         result.add(perm);
    }
    return result;
  private boolean hasPermission(String permission) {
    if (canMakeSmores()) {
       if (Build.VERSION.SDK INT >= Build.VERSION CODES.M) {
         return (checkSelfPermission(permission) ==
PackageManager.PERMISSION GRANTED);
       }
    return true;
  private void showMessageOKCancel(String message, DialogInterface.OnClickListener
okListener) {
```

```
new AlertDialog.Builder(this)
         .setMessage(message)
         .setPositiveButton("OK", okListener)
         .setNegativeButton("Cancel", null)
         .create()
         .show();
  }
  private boolean canMakeSmores() {
    return (Build.VERSION.SDK INT > Build.VERSION CODES.LOLLIPOP MR1);
  @TargetApi(Build.VERSION CODES.M)
  @Override
  public void onRequestPermissionsResult(int requestCode, String[] permissions, int[]
grantResults) {
    switch (requestCode) {
      case ALL PERMISSIONS RESULT:
         for (String perms : permissionsToRequest) {
           if (hasPermission(perms)) {
           } else {
             permissionsRejected.add(perms);
         }
         if (permissionsRejected.size() > 0) {
           if (Build.VERSION.SDK INT >= Build.VERSION CODES.M) {
             if (shouldShowRequestPermissionRationale(permissionsRejected.get(0))) {
                showMessageOKCancel("These permissions are mandatory for the
application. Please allow access.",
                    new DialogInterface.OnClickListener() {
                       @Override
                       public void onClick(DialogInterface dialog, int which) {
                         if (Build.VERSION.SDK INT >= Build.VERSION CODES.M)
{
                           //Log.d("API123", "permisionrejected" +
permissionsRejected.size());
                           requestPermissions(permissionsRejected.toArray(new
String[permissionsRejected.size()]), ALL PERMISSIONS RESULT);
                    });
```

```
return;
}

break;
}
```