MAD LAB CYCLE-1

1.Design a login page

```
XML Code
```

```
<LinearLayout
    android:layout_height="match_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout width="match parent"
    android:orientation="vertical">
    <EditText
         android:hint="Username"
         android:layout width="wrap content"
         android:layout_height="wrap_content"
         android:id="@+id/txt2"
         android:inputType="text"/>
    <EditText
         android:hint="Password"
         android:layout width="wrap content"
         android:layout_height="wrap_content"
         android:id="@+id/txt1"/>
    <Button
         android:hint="Login"
         android:layout_width="wrap_content"
         android:layout_height="wrap_content"
         android:id="@+id/button1"
        android:onClick="Login"/>
</LinearLayout>
Java Code
package com.example.sjcet.loginpage;
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);
    }
}
```

<u>Output</u>



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

Xml Code

```
LinearLayout
    android:layout_width="match_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/tv"
        android:text="Anjaly"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btn1"
        android:text="Change"
        android:onClick="Change"
</LinearLayout>
```

```
Java Code
package com.example.sjcet.changethecontent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
 TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity_main);
         tv = findViewById(R.id.tv);
    public void Change(View view) {
         tv.setText("Anu");
    }
}
```

<u>Output</u>





3. Read a content from EditText and print it in a TextView

Xml Code

```
<LinearLayout android:layout_width="match_parent"</pre>
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="match_parent" android:orientation="vertical">
    <TextView 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 text" />
        android:layout_width="wrap_content"
        android:layout height="wrap content"
        android:id="@+id/b1"
        android:text="text"
        android:onClick="change"/>
</LinearLayout>
```

```
Java Code
package com.example.sjcet.prgm3;
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 change(View view) {
        tv1=(TextView)findViewById(R.id.tv1);
        et1=(EditText)findViewById(R.id.et1);
        tv1.setText(et1.getText());
    }
```

Output



4. Change the background color on a button click

Xml Code

```
<?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/rlVar1"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/colorPrimaryDark"
    tools:context=".MainActivity">
```

```
<TextView
         android:id="@+id/tvVar1"
         android:lavout width="wrap content"
         android:layout height="wrap content"
         android:layout centerHorizontal="true"
         android:layout marginTop="240dp"
         android:text="Do you know me"
         android:textSize="30dp"
         android:textStyle="bold" />
    <LinearLavout
         android:layout_width="wrap_content"
         android:layout_height="wrap_content"
         android:layout below="@+id/tvVar1"
         android:layout centerInParent="true"
         android:layout marginTop="60dp"
         android:orientation="horizontal"
         android:padding="10dp">
         <Button
             android:id="@+id/btVar1"
             android:layout_width="150dp"
             android:layout height="wrap content"
             android:padding="20dp"
             android:text="hi"
             android:textSize="25dp" />
         <Button
             android:id="@+id/btVar2"
             android:layout width="150dp"
             android:layout height="wrap content"
             android:padding="20dp"
             android:text="hey"
             android:textSize="25dp" />
    </LinearLayout>
</RelativeLayout>
Java Code
package com.example.sjcet.pgm4;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RelativeLayout;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity main);
         Button button1, button2;
         final RelativeLayout relativeLayout;
         button1 = findViewById(R.id.btVar1);
         button2 = findViewById(R.id.btVar2);
         relativeLayout = findViewById(R.id.rlVar1);
         button1.setOnClickListener(new View.OnClickListener() {
             @Override
             public void onClick(View view) {
                  relativeLayout.setBackgroundResource(R.color.colorPrimary);
             }
         });
```

```
button2.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View view) {
                   relativeLayout.setBackgroundResource(R.color.colorAccent);
         });
    }
<u>Output</u>
 4:06 💠 🖀
                     ₹⊿0
 pgm4
        н
                HEY
 9:36 🌣 🖺
 pgm4
      Do you know me
        н
                HEY
```

5:Create a Sample Calculator Program

```
Xml Code
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/relative1"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".MainActivity">
    <EditText
         android:id="@+id/edt1"
         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:lavout 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_alignEnd="@+id/edt1"
    android:layout_alignRight="@+id/edt1"
    android:layout_alignTop="@+id/button3"
    android:layout_marginLeft="46dp"
    android:layout_marginStart="46dp"
    android:layout_toRightOf="@+id/button3"
    android:text="+" />
<Button
    android:id="@+id/buttonsub"
    style="?android:attr/buttonStyleSmall"
    android:lavout 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_alignLeft="@+id/buttonsub"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    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="." />
    <Button
         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:lavout alignStart="@+id/button10"
         android:lavout below="@+id/button0"
         android:layout marginTop="37dp"
         android:text="=" />
</RelativeLayout>
```

Java Code

```
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 = (Button) findViewBvId(R.id.button0):
         button1 = (Button) findViewBvId(R.id.button1):
         button2 = (Button) findViewBvId(R.id.button2):
         button3 = (Button) findViewById(R.id.button3);
         button4 = (Button) findViewById(R.id.button4);
         button5 = (Button) findViewById(R.id.button5);
         button6 = (Button) findViewById(R.id.button6);
         button7 = (Button) findViewById(R.id.button7);
         button8 = (Button) findViewById(R.id.button8);
         button9 = (Button) findViewById(R.id.button9);
         button10 = (Button) findViewById(R.id.button10);
         buttonAdd = (Button) findViewById(R.id.buttonadd);
         buttonSub = (Button) findViewById(R.id.buttonsub);
         buttonMul = (Button) findViewById(R.id.buttonmul);
         buttonDivision = (Button) findViewById(R.id.buttondiv);
         buttonC = (Button) findViewById(R.id.buttonC);
         buttonEqual = (Button) findViewById(R.id.buttoneql);
         crunchifyEditText = (EditText) 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() {
    @Override
    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() {
    @Override
    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("");
         } else {
             mValueOne = Float.parseFloat(crunchifyEditText.getText() + "");
             crunchifvAddition = true:
             crunchifyEditText.setText(null);
         }
    }
});
buttonSub.setOnClickListener(new View.OnClickListener() {
    @Override
    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() + "");
                 crunchifvMultiplication = 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() {
             public void onClick(View v) {
                 crunchifyEditText.setText("");
         });
         button10.setOnClickListener(new View.OnClickListener() {
             public void onClick(View v) {
                 crunchifyEditText.setText(crunchifyEditText.getText() + ".");
             }
        });
    }
}
```

<u>Output</u>

