MAD – CYCLE 1

1. Design Login page

Code:XML

```xml
<LinearLayout
    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>
```
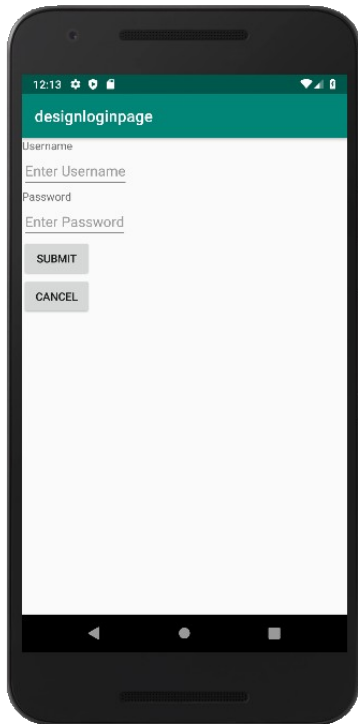
Code:Java

```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) {
    }
```

```
}
```

Output:

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

Code:XML

```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
    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>
```
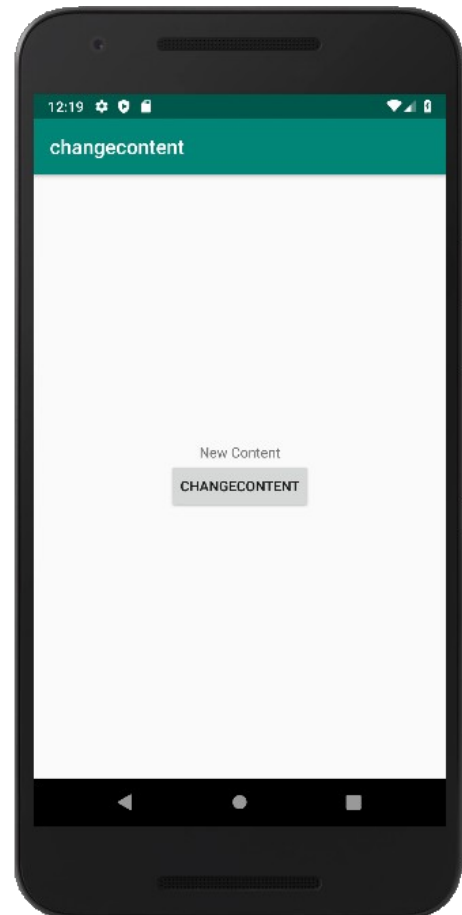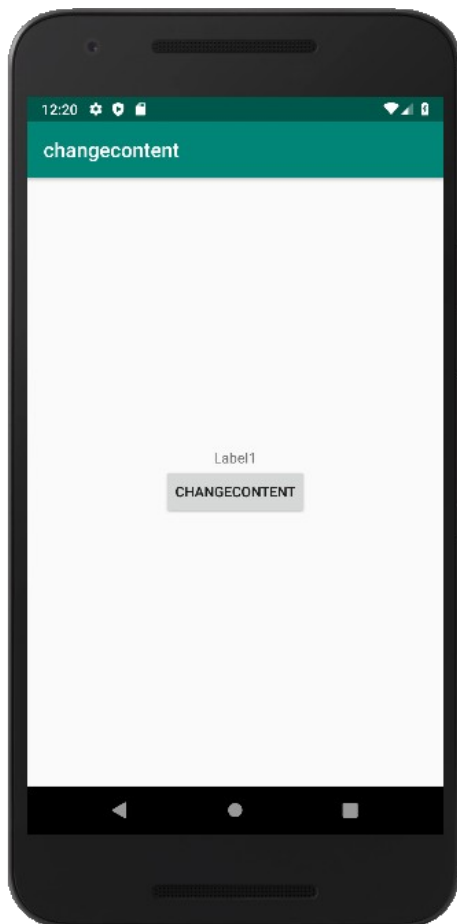
Code:JAVA

```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;
```

```java
    @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");
    }
}
```

Output:

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

   Code:XML

```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
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/tv1"
        android:text="Text1"/>
    <EditText
```

```xml
        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>
```
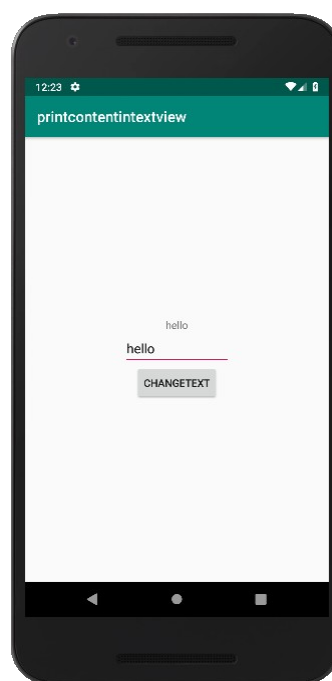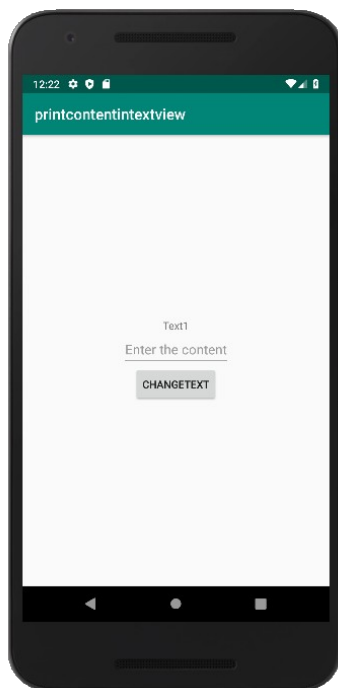
code:JAVA

```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());
    }
}
```

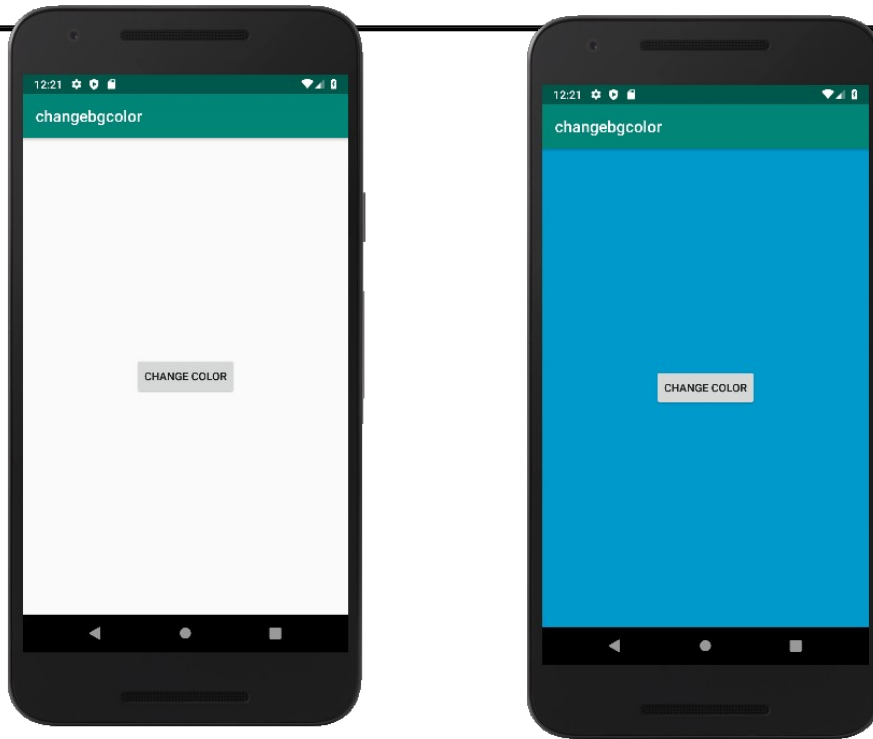**Output:**

4. Change the background color on a button click.

Code:XML

```xml
    <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

```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;
    LinearLayout linearLayout;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        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);
    }
}
```

Output:

5. Create a sample Calculator.

   Code:XML

```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"
    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" />
```

```xml
<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"
```

```xml
        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="." />
<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"
```

```xml
    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

```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);
        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");
```

```java
            }
        });
        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() + "");
```

```java
                crunchifyAddition = 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() + "");
            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() + ".");
        }
    });
```

```
    }
}
```

Output: