```java
1 package com.example.calculator;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6 import android.view.View;
7 import android.widget.TextView;
8
9 import static java.lang.Thread.sleep;
10
11 public class MainActivity extends AppCompatActivity {
12
13
14     private String expr = "";
15     private TextView main_disp;
16     private TextView sub_disp;
17     private boolean eval_flag = false;
18     private boolean bracket_flag = false;
19     @Override
20     protected void onCreate(Bundle savedInstanceState) {
21         super.onCreate(savedInstanceState);
22         setContentView(R.layout.activity_main);
23         main_disp = (TextView) findViewById(R.id.result);
24         sub_disp = (TextView) findViewById(R.id.expr);
25     }
26     public void click_zero(View v)
27     {
28         if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
29         expr = main_disp.getText().toString();
30         expr = expr + "0";
31         main_disp.setText(expr);
32     }
33
34     public void click_one(View v)
35     {
36         if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
37         expr = main_disp.getText().toString();
38         expr = expr + "1";
39         main_disp.setText(expr);
40     }
41
42     public void click_two(View v)
43     {
44         if (eval_flag){sub_disp.setText("");main_disp.
```

```java
44 setText("");eval_flag=false;}
45          expr = main_disp.getText().toString();
46          expr = expr + "2";
47          main_disp.setText(expr);
48      }
49
50      public void click_three(View v)
51      {
52          if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
53          expr = main_disp.getText().toString();
54          expr = expr + "3";
55          main_disp.setText(expr);
56      }
57
58      public void click_four(View v)
59      {
60          if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
61          expr = main_disp.getText().toString();
62          expr = expr + "4";
63          main_disp.setText(expr);
64      }
65
66      public void click_five(View v)
67      {
68          if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
69          expr = main_disp.getText().toString();
70          expr = expr + "5";
71          main_disp.setText(expr);
72      }
73
74      public void click_six(View v)
75      {
76          if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
77          expr = main_disp.getText().toString();
78          expr = expr + "6";
79          main_disp.setText(expr);
80      }
81
82      public void click_seven(View v)
83      {
84          if (eval_flag){sub_disp.setText("");main_disp.
   setText("");eval_flag=false;}
```

```java
 85            expr = main_disp.getText().toString();
 86            expr = expr + "7";
 87            main_disp.setText(expr);
 88        }
 89
 90        public void click_eight(View v)
 91        {
 92            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
 93            expr = main_disp.getText().toString();
 94            expr = expr + "8";
 95            main_disp.setText(expr);
 96        }
 97
 98        public void click_nine(View v)
 99        {
100            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
101            expr = main_disp.getText().toString();
102            expr = expr + "9";
103            main_disp.setText(expr);
104        }
105
106        public void click_dot(View v)
107        {
108            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
109            expr = main_disp.getText().toString();
110            expr = expr + ".";
111            main_disp.setText(expr);
112        }
113
114        public void click_plus(View v)
115        {
116            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
117            expr = main_disp.getText().toString();
118            expr = expr + "+";
119            main_disp.setText(expr);
120        }
121
122        public void click_minus(View v)
123        {
124            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
125            expr = main_disp.getText().toString();
```

```
126            expr = expr + "-";
127            main_disp.setText(expr);
128        }
129
130    public void click_multp(View v)
131    {
132            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
133            expr = main_disp.getText().toString();
134            expr = expr + "*";
135            main_disp.setText(expr);
136        }
137
138    public void click_div(View v)
139    {
140            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
141            expr = main_disp.getText().toString();
142            expr = expr + "/";
143            main_disp.setText(expr);
144        }
145
146    public void click_percnt(View v)
147    {
148            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
149            expr = main_disp.getText().toString();
150            expr = expr + "%";
151            main_disp.setText(expr);
152        }
153
154    public void click_ac(View v)
155    {
156            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
157            main_disp.setText("");
158            expr="";
159        }
160
161    public void click_del(View v)
162    {
163            if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
164            expr = main_disp.getText().toString();
165            if(expr.length() > 0) {
166                expr = expr.substring(0, expr.length() - 1);
```

```java
167                 }
168                 main_disp.setText(expr);
169         }
170
171     public void click_brackets(View v)
172     {
173             if (eval_flag){sub_disp.setText("");main_disp.
    setText("");eval_flag=false;}
174             expr = main_disp.getText().toString();
175             if(expr.length() == 0) {
176                 expr = expr+"(";
177                 bracket_flag = true;
178             }
179             else if((expr.length()>0) && (expr.endsWith("(")))
180             {
181                 expr = expr+"(";
182             }
183             else if((expr.length()>0) && (expr.endsWith(")")))
184             {
185                 expr = expr+")";
186             }
187             else if(!bracket_flag)
188             {
189                 expr = expr+"(";
190                 bracket_flag = true;
191             }
192             else
193             {
194                 expr = expr+")";
195                 bracket_flag = false;
196             }
197
198             main_disp.setText(expr);
199         }
200
201     public void click_equal(View v)
202     {
203             int result = 0;
204             sub_disp.setText(expr);
205             if(!expr.isEmpty())
206             {
207                 try {
208                     result = EvaluateString.evaluate(expr);
209                     main_disp.setText(Integer.toString(result
    ));
210                 } catch (Exception e) {
```

```
211                    e.printStackTrace();
212                    main_disp.setText("Invalid Expr");
213                }
214            expr="";
215            eval_flag = true;
216        }
217    }
218 }
```