

```
1 import java.awt.EventQueue;
28
29 public class Smart_Calculator {
30
31     private JFrame frmSmartCalci;
32     private JTextField textField;
33     double first;
34     double second;
35     double result;
36     String operation;
37     String answer;
38     int DecimalInt;
39     int BinaryInt;
40     int OctalInt;
41     String HexInput;
42     String Decimalstring;
43     String Binarystring;
44     String Octalstring;
45     String Hexstring;
46     int conversion ;
47
48     private final ButtonGroup buttonGroup_1 = new ButtonGroup();
49     private JTextField textFieldDecimal;
50     private JTextField textFieldBinary;
51     private JTextField textFieldOctal;
52     private JTextField textFieldHex;
53     private final ButtonGroup buttonGroup = new ButtonGroup();
54     private JTextPane textPaneInput;
55     private JTextPane textPaneOutput;
56
57     /**
58      * Launch the application.
59      */
60     public static void main(String[] args) {
61         EventQueue.invokeLater(new Runnable() {
62             public void run() {
63                 try {
64                     Smart_Calculator window = new Smart_Calculator();
65                     window.frmSmartCalci.setVisible(true);
66                 } catch (Exception e) {
67                     e.printStackTrace();
68                 }
69             }
70         });
71     }
72
73     /**
74      * Create the application.
75      */
76     public Smart_Calculator() {
77         initialize();
78     }
79
80     /**
81      * Initialize the contents of the frame.
82      */
83     private void initialize() {
```

```
84     frmSmartCalci = new JFrame();
85     frmSmartCalci.getContentPane().setFocusable(false);
86     frmSmartCalci.setFocusable(false);
87     frmSmartCalci.getContentPane().setBackground(Color.DARK_GRAY);
88     frmSmartCalci.setForeground(Color.DARK_GRAY);
89     frmSmartCalci.setBackground(new Color(64, 64, 64));
90     frmSmartCalci.setResizable(false);
91     frmSmartCalci.setTitle("Smart Calculator");
92     frmSmartCalci.setBounds(100, 100, 407, 640);
93     frmSmartCalci.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
94     frmSmartCalci.getContentPane().setLayout(null);
95
96     JLabel lblNewLabel = new JLabel("Scientific Calculator");
97     lblNewLabel.setBounds(23, 0, 296, 44);
98     lblNewLabel.setFocusable(false);
99     lblNewLabel.setForeground(new Color(230, 230, 250));
100    lblNewLabel.setBackground(Color.WHITE);
101    lblNewLabel.setEnabled(false);
102    lblNewLabel.setFont(new Font("Times New Roman", Font.BOLD, 30));
103    frmSmartCalci.getContentPane().add(lblNewLabel);
104
105    JLabel btnVersion = new JLabel("Version 3.1.0");
106    btnVersion.setBounds(297, 16, 84, 25);
107    btnVersion.setFocusable(false);
108    btnVersion.setEnabled(false);
109    btnVersion.setFont(new Font("Segoe UI Semibold", Font.ITALIC, 13));
110    btnVersion.setForeground(new Color(230, 230, 250));
111    frmSmartCalci.getContentPane().add(btnVersion);
112
113    JButton btnRoot = new JButton("\u221Ax");
114    btnRoot.setBounds(12, 157, 63, 50);
115    btnRoot.setFocusable(false);
116    btnRoot.setBackground(new Color(0, 0, 0));
117    btnRoot.setForeground(new Color(240, 248, 255));
118    btnRoot.setEnabled(false);
119    btnRoot.addActionListener(new ActionListener() {
120        public void actionPerformed(ActionEvent e) {
121            double a = Math.sqrt(Double.parseDouble(textField.getText()));
122            textField.setText("");
123            textField.setText(textField.getText()+a);
124        }
125    });
126    btnRoot.setFont(new Font("Times New Roman", Font.BOLD, 25));
127    frmSmartCalci.getContentPane().add(btnRoot);
128
129    JButton btnReciprocal = new JButton("1/x");
130    btnReciprocal.setBounds(10, 217, 65, 50);
131    btnReciprocal.setFocusable(false);
132    btnReciprocal.setForeground(Color.WHITE);
133    btnReciprocal.setBackground(Color.BLACK);
134    btnReciprocal.setEnabled(false);
135    btnReciprocal.addActionListener(new ActionListener() {
136        public void actionPerformed(ActionEvent e) {
137            double a = 1/(Double.parseDouble(textField.getText()));
138            textField.setText("");
139            textField.setText(textField.getText()+a);
140        }
    });
```

```
141     });
142     btnReciprocal.setFont(new Font("Microsoft Himalaya", Font.PLAIN, 23));
143     frmSmartCalci.getContentPane().add(btnReciprocal);
144
145     JButton btnXPowY = new JButton("X^Y");
146     btnXPowY.setBounds(10, 277, 65, 50);
147     btnXPowY.setFocusable(false);
148     btnXPowY.setForeground(Color.WHITE);
149     btnXPowY.setBackground(Color.BLACK);
150     btnXPowY.setEnabled(false);
151     btnXPowY.addActionListener(new ActionListener() {
152         public void actionPerformed(ActionEvent e) {
153             first = Double.parseDouble(textField.getText());
154             textField.setText("");
155             operation = "X^Y";
156         }
157     });
158     btnXPowY.setFont(new Font("Times New Roman", Font.PLAIN, 17));
159     frmSmartCalci.getContentPane().add(btnXPowY);
160
161     JButton btnCube = new JButton("X^3");
162     btnCube.setBounds(12, 337, 63, 50);
163     btnCube.setFocusable(false);
164     btnCube.setForeground(Color.WHITE);
165     btnCube.setBackground(Color.BLACK);
166     btnCube.setEnabled(false);
167     btnCube.addActionListener(new ActionListener() {
168         public void actionPerformed(ActionEvent arg0) {
169             double a = (Double.parseDouble(textField.getText()));
170             a = Math.pow(a, 3);
171             textField.setText("");
172             textField.setText(textField.getText()+a);
173         }
174     });
175     btnCube.setFont(new Font("Times New Roman", Font.PLAIN, 17));
176     frmSmartCalci.getContentPane().add(btnCube);
177
178     JButton btnSquare = new JButton("X^2");
179     btnSquare.setBounds(12, 397, 63, 50);
180     btnSquare.setFocusable(false);
181     btnSquare.setForeground(Color.WHITE);
182     btnSquare.setBackground(Color.BLACK);
183     btnSquare.setEnabled(false);
184     btnSquare.addActionListener(new ActionListener() {
185         public void actionPerformed(ActionEvent e) {
186             double a = (Double.parseDouble(textField.getText()));
187             a = Math.pow(a, 2);
188             textField.setText("");
189             textField.setText(textField.getText()+a);
190         }
191     });
192     btnSquare.setFont(new Font("Times New Roman", Font.PLAIN, 17));
193     frmSmartCalci.getContentPane().add(btnSquare);
194
195     JButton btnFactorial = new JButton("n!");
196     btnFactorial.setBounds(12, 457, 63, 50);
197     btnFactorial.setFocusable(false);
```

```
198     btnFactorial.setBackground(Color.BLACK);
199     btnFactorial.setForeground(Color.WHITE);
200     btnFactorial.setEnabled(false);
201     btnFactorial.addActionListener(new ActionListener() {
202         public void actionPerformed(ActionEvent e) {
203             double a = Double.parseDouble(textField.getText());
204             double Factorial = 1;
205
206             for(int i=1 ; i<=a ; i++)
207             {
208                 Factorial = Factorial*i;
209             }
210
211             textField.setText("");
212             textField.setText(textField.getText()+Factorial);
213         }
214     });
215     btnFactorial.setFont(new Font("Times New Roman", Font.PLAIN, 34));
216     frmSmartCalci.getContentPane().add(btnFactorial);
217
218     JButton btnPlusOrMinus = new JButton("/-");
219     btnPlusOrMinus.setBounds(10, 517, 65, 50);
220     btnPlusOrMinus.setFocusable(false);
221     btnPlusOrMinus.setForeground(Color.WHITE);
222     btnPlusOrMinus.setBackground(Color.BLACK);
223     btnPlusOrMinus.setEnabled(false);
224     btnPlusOrMinus.addActionListener(new ActionListener() {
225         public void actionPerformed(ActionEvent e) {
226             double a = Double.parseDouble(String.valueOf(textField.getText()));
227             a = a*(-1);
228             textField.setText(String.valueOf(a));
229         }
230     });
231
232     btnPlusOrMinus.setFont(new Font("Times New Roman", Font.PLAIN, 25));
233     frmSmartCalci.getContentPane().add(btnPlusOrMinus);
234
235     JButton btnExponent = new JButton("e^x");
236     btnExponent.setBounds(83, 157, 66, 50);
237     btnExponent.setFocusable(false);
238     btnExponent.setForeground(new Color(240, 248, 255));
239     btnExponent.setBackground(new Color(112, 128, 144));
240     btnExponent.setEnabled(false);
241     btnExponent.addActionListener(new ActionListener() {
242         public void actionPerformed(ActionEvent e) {
243             double a = Math.exp(Double.parseDouble(textField.getText()));
244             textField.setText("");
245             textField.setText(textField.getText()+a);
246         }
247     });
248     btnExponent.setFont(new Font("Microsoft Himalaya", Font.PLAIN, 33));
249     frmSmartCalci.getContentPane().add(btnExponent);
250
251     JButton btnLog = new JButton("Log");
252     btnLog.setBounds(83, 217, 66, 50);
253     btnLog.setFocusable(false);
254     btnLog.setForeground(new Color(240, 248, 255));
```

```
255     btnLog.setBackground(new Color(112, 128, 144));
256     btnLog.setEnabled(false);
257     btnLog.addActionListener(new ActionListener() {
258         public void actionPerformed(ActionEvent e) {
259             double a = Math.Log(Double.parseDouble(textField.getText()));
260             textField.setText("");
261             textField.setText(textField.getText()+a);
262         }
263     });
264     btnLog.setFont(new Font("Microsoft Himalaya", Font.PLAIN, 27));
265     frmSmartCalci.getContentPane().add(btnLog);
266
267     JButton btnPercentage = new JButton("%");
268     btnPercentage.setBounds(83, 277, 66, 50);
269     btnPercentage.setFocusable(false);
270     btnPercentage.setBackground(SystemColor.activeCaption);
271     btnPercentage.setEnabled(false);
272     btnPercentage.addActionListener(new ActionListener() {
273         public void actionPerformed(ActionEvent e) {
274             first = Double.parseDouble(textField.getText());
275             textField.setText("");
276             operation = "%";
277         }
278     });
279     btnPercentage.setFont(new Font("Times New Roman", Font.BOLD, 20));
280     frmSmartCalci.getContentPane().add(btnPercentage);
281
282     JButton btn7 = new JButton("7");
283     btn7.setBounds(83, 337, 66, 50);
284     btn7.setFocusable(false);
285     btn7.setForeground(new Color(255, 255, 255));
286     btn7.setBackground(new Color(105, 105, 105));
287     btn7.setEnabled(false);
288     btn7.addActionListener(new ActionListener() {
289         public void actionPerformed(ActionEvent e) {
290             String number = textField.getText()+btn7.getText();
291             textField.setText(number);
292         }
293     });
294     btn7.setFont(new Font("Times New Roman", Font.BOLD, 30));
295     frmSmartCalci.getContentPane().add(btn7);
296
297     JButton btn4 = new JButton("4");
298     btn4.setBounds(83, 397, 66, 50);
299     btn4.setFocusable(false);
300     btn4.setBackground(new Color(105, 105, 105));
301     btn4.setForeground(new Color(255, 255, 255));
302     btn4.setEnabled(false);
303     btn4.addActionListener(new ActionListener() {
304         public void actionPerformed(ActionEvent e) {
305             String number = textField.getText()+btn4.getText();
306             textField.setText(number);
307         }
308     });
309     btn4.setFont(new Font("Times New Roman", Font.BOLD, 30));
310     frmSmartCalci.getContentPane().add(btn4);
311
```

```
312     JButton btn1 = new JButton("1");
313     btn1.setBounds(83, 457, 66, 50);
314     btn1.setFocusable(false);
315     btn1.setForeground(new Color(255, 255, 255));
316     btn1.setBackground(new Color(105, 105, 105));
317     btn1.setEnabled(false);
318     btn1.addActionListener(new ActionListener() {
319         public void actionPerformed(ActionEvent e) {
320             String number = textField.getText()+btn1.getText();
321             textField.setText(number);
322         }
323     });
324     btn1.setFont(new Font("Times New Roman", Font.BOLD, 30));
325     frmSmartCalci.getContentPane().add(btn1);
326
327     JButton btnSine = new JButton("sin");
328     btnSine.setBounds(159, 157, 66, 50);
329     btnSine.setFocusable(false);
330     btnSine.setForeground(new Color(255, 255, 255));
331     btnSine.setBackground(new Color(112, 128, 144));
332     btnSine.setEnabled(false);
333     btnSine.addActionListener(new ActionListener() {
334         public void actionPerformed(ActionEvent e) {
335             double a = Math.sin(Double.parseDouble(textField.getText()));
336             textField.setText("");
337             textField.setText(textField.getText()+a);
338         }
339     });
340     btnSine.setFont(new Font("Times New Roman", Font.PLAIN, 24));
341     frmSmartCalci.getContentPane().add(btnSine);
342
343     JButton btn8 = new JButton("8");
344     btn8.setBounds(158, 338, 67, 50);
345     btn8.setFocusable(false);
346     btn8.setBackground(new Color(105, 105, 105));
347     btn8.setForeground(new Color(255, 255, 255));
348     btn8.setEnabled(false);
349     btn8.addActionListener(new ActionListener() {
350         public void actionPerformed(ActionEvent e) {
351             String number = textField.getText()+btn8.getText();
352             textField.setText(number);
353         }
354     });
355     btn8.setFont(new Font("Times New Roman", Font.BOLD, 30));
356     frmSmartCalci.getContentPane().add(btn8);
357
358     JButton btn5 = new JButton("5");
359     btn5.setBounds(158, 398, 67, 50);
360     btn5.setFocusable(false);
361     btn5.setForeground(new Color(255, 255, 255));
362     btn5.setBackground(new Color(105, 105, 105));
363     btn5.setEnabled(false);
364     btn5.addActionListener(new ActionListener() {
365         public void actionPerformed(ActionEvent e) {
366             String number = textField.getText()+btn5.getText();
367             textField.setText(number);
368         }
369     });
```



```

369     });
370     btn5.setFont(new Font("Times New Roman", Font.BOLD, 30));
371     frmSmartCalci.getContentPane().add(btn5);
372
373     JButton btn2 = new JButton("2");
374     btn2.setBounds(158, 458, 67, 50);
375     btn2.setFocusable(false);
376     btn2.setForeground(new Color(255, 255, 255));
377     btn2.setBackground(new Color(105, 105, 105));
378     btn2.setEnabled(false);
379     btn2.addActionListener(new ActionListener() {
380         public void actionPerformed(ActionEvent e) {
381             String number = textField.getText()+btn2.getText();
382             textField.setText(number);
383         }
384     });
385     btn2.setFont(new Font("Times New Roman", Font.BOLD, 30));
386     frmSmartCalci.getContentPane().add(btn2);
387
388     JButton btnCos = new JButton("cos");
389     btnCos.setBounds(235, 156, 68, 50);
390     btnCos.setFocusable(false);
391     btnCos.setForeground(new Color(255, 255, 255));
392     btnCos.setBackground(new Color(112, 128, 144));
393     btnCos.setEnabled(false);
394     btnCos.addActionListener(new ActionListener() {
395         public void actionPerformed(ActionEvent arg0) {
396             double a = Math.cos(Double.parseDouble(textField.getText()));
397             textField.setText("");
398             textField.setText(textField.getText()+a);
399         }
400     });
401     btnCos.setFont(new Font("Times New Roman", Font.PLAIN, 21));
402     frmSmartCalci.getContentPane().add(btnCos);
403
404     JButton btnB = new JButton("\uF0E7");
405     btnB.setBounds(234, 277, 69, 50);
406     btnB.setFocusable(false);
407     btnB.setBackground(new Color(178, 34, 34));
408     btnB.setForeground(new Color(255, 255, 255));
409     btnB.setEnabled(false);
410     btnB.addActionListener(new ActionListener() {
411         public void actionPerformed(ActionEvent e) {
412             String BackSpace = null;
413
414             if(textField.getText().length() >0)
415             {
416                 StringBuilder str = new StringBuilder(textField.getText());
417                 str.deleteCharAt(textField.getText().length()-1);
418                 BackSpace = str.toString();
419                 textField.setText(BackSpace);
420             }
421         }
422     });
423     btnB.setFont(new Font("Wingdings", Font.BOLD, 25));
424     frmSmartCalci.getContentPane().add(btnB);
425

```

```
426 JButton btn9 = new JButton("9");
427 btn9.setBounds(234, 337, 69, 50);
428 btn9.setFocusable(false);
429 btn9.setForeground(new Color(255, 255, 255));
430 btn9.setBackground(new Color(105, 105, 105));
431 btn9.setEnabled(false);
432 btn9.addActionListener(new ActionListener() {
433     public void actionPerformed(ActionEvent e) {
434         String number = textField.getText()+btn9.getText();
435         textField.setText(number);
436     }
437 });
438 btn9.setFont(new Font("Times New Roman", Font.BOLD, 30));
439 frmSmartCalci.getContentPane().add(btn9);
440
441 JButton btn6 = new JButton("6");
442 btn6.setBounds(234, 397, 69, 50);
443 btn6.setFocusable(false);
444 btn6.setForeground(new Color(255, 255, 255));
445 btn6.setBackground(new Color(105, 105, 105));
446 btn6.setEnabled(false);
447 btn6.addActionListener(new ActionListener() {
448     public void actionPerformed(ActionEvent e) {
449         String number = textField.getText()+btn6.getText();
450         textField.setText(number);
451     }
452 });
453 btn6.setFont(new Font("Times New Roman", Font.BOLD, 30));
454 frmSmartCalci.getContentPane().add(btn6);
455
456 JButton btn3 = new JButton("3");
457 btn3.setBounds(234, 457, 69, 50);
458 btn3.setFocusable(false);
459 btn3.setForeground(new Color(255, 255, 255));
460 btn3.setBackground(new Color(105, 105, 105));
461 btn3.setEnabled(false);
462 btn3.addActionListener(new ActionListener() {
463     public void actionPerformed(ActionEvent e) {
464         String number = textField.getText()+btn3.getText();
465         textField.setText(number);
466     }
467 });
468 btn3.setFont(new Font("Times New Roman", Font.BOLD, 30));
469 frmSmartCalci.getContentPane().add(btn3);
470
471 JButton btnDot = new JButton(".");
472 btnDot.setBounds(235, 515, 69, 50);
473 btnDot.setFocusable(false);
474 btnDot.setBackground(SystemColor.activeCaption);
475 btnDot.addActionListener(new ActionListener() {
476     public void actionPerformed(ActionEvent arg0) {
477         String number = textField.getText()+btnDot.getText();
478         textField.setText(number);
479     }
480 });
481 btnDot.setEnabled(false);
482 btnDot.setFont(new Font("Times New Roman", Font.BOLD, 30));
```



```
483     frmSmartCalci.getContentPane().add(btnDot);
484
485     JButton btnTan = new JButton("tan");
486     btnTan.setBounds(313, 157, 68, 50);
487     btnTan.setFocusable(false);
488     btnTan.setForeground(new Color(255, 255, 255));
489     btnTan.setBackground(new Color(112, 128, 144));
490     btnTan.setEnabled(false);
491     btnTan.addActionListener(new ActionListener() {
492         public void actionPerformed(ActionEvent e) {
493             double a = Math.tan(Double.parseDouble(textField.getText()));
494             textField.setText("");
495             textField.setText(textField.getText()+a);
496         }
497     });
498     btnTan.setFont(new Font("Times New Roman", Font.PLAIN, 22));
499     frmSmartCalci.getContentPane().add(btnTan);
500
501     JButton btnAdd = new JButton("+");
502     btnAdd.setBounds(312, 277, 69, 50);
503     btnAdd.setFocusable(false);
504     btnAdd.setForeground(new Color(255, 255, 255));
505     btnAdd.setBackground(new Color(46, 139, 87));
506     btnAdd.setEnabled(false);
507     btnAdd.addActionListener(new ActionListener() {
508         public void actionPerformed(ActionEvent e) {
509             first = Double.parseDouble(textField.getText());
510             textField.setText("");
511             operation = "+";
512         }
513     });
514     btnAdd.setFont(new Font("Times New Roman", Font.BOLD, 30));
515     frmSmartCalci.getContentPane().add(btnAdd);
516
517     JButton btnSubtract = new JButton("-");
518     btnSubtract.setBounds(312, 337, 69, 50);
519     btnSubtract.setFocusable(false);
520     btnSubtract.setForeground(new Color(255, 255, 255));
521     btnSubtract.setBackground(new Color(46, 139, 87));
522     btnSubtract.setEnabled(false);
523     btnSubtract.addActionListener(new ActionListener() {
524         public void actionPerformed(ActionEvent e) {
525             first = Double.parseDouble(textField.getText());
526             textField.setText("");
527             operation = "-";
528         }
529     });
530     btnSubtract.setFont(new Font("Times New Roman", Font.BOLD, 30));
531     frmSmartCalci.getContentPane().add(btnSubtract);
532
533     JButton btnMultiply = new JButton("*");
534     btnMultiply.setBounds(312, 397, 69, 50);
535     btnMultiply.setFocusable(false);
536     btnMultiply.setForeground(new Color(255, 255, 255));
537     btnMultiply.setBackground(new Color(46, 139, 87));
538     btnMultiply.setEnabled(false);
539     btnMultiply.addActionListener(new ActionListener() {
```

```
540         public void actionPerformed(ActionEvent e) {
541             first = Double.parseDouble(textField.getText());
542             textField.setText("");
543             operation = "*";
544         }
545     });
546     btnMultiply.setFont(new Font("Times New Roman", Font.BOLD, 30));
547     frmSmartCalci.getContentPane().add(btnMultiply);
548
549     JButton btnDivides = new JButton("/");
550     btnDivides.setBounds(312, 457, 69, 50);
551     btnDivides.setFocusable(false);
552     btnDivides.setForeground(new Color(255, 255, 255));
553     btnDivides.setBackground(new Color(46, 139, 87));
554     btnDivides.setEnabled(false);
555     btnDivides.addActionListener(new ActionListener() {
556         public void actionPerformed(ActionEvent e) {
557             first = Double.parseDouble(textField.getText());
558             textField.setText("");
559             operation = "/";
560         }
561     });
562     btnDivides.setFont(new Font("Times New Roman", Font.BOLD, 30));
563     frmSmartCalci.getContentPane().add(btnDivides);
564
565     JButton btnEqual = new JButton("=");
566     btnEqual.setBounds(312, 515, 69, 50);
567     btnEqual.setFocusable(false);
568     btnEqual.setBackground(new Color(152, 251, 152));
569     btnEqual.setForeground(new Color(0, 0, 0));
570     btnEqual.setEnabled(false);
571     btnEqual.addActionListener(new ActionListener() {
572         public void actionPerformed(ActionEvent e) {
573             second = Double.parseDouble(textField.getText());
574             if(operation == "+")
575             {
576                 result = first+second;
577                 answer = String.format("%.2f", result);
578                 textField.setText(answer);
579             }
580             else if(operation == "-")
581             {
582                 result = first-second;
583                 answer = String.format("%.2f", result);
584                 textField.setText(answer);
585             }
586             else if(operation == "*")
587             {
588                 result = first*second;
589                 answer = String.format("%.2f", result);
590                 textField.setText(answer);
591             }
592             else if(operation == "/")
593             {
594                 result = first/second;
595                 answer = String.format("%.2f", result);
596                 textField.setText(answer);
```

```
597     }
598     else if(operation == "%")
599     {
600         result = first%second;
601         answer = String.format("%.2f", result);
602         textField.setText(answer);
603     }
604     else if(operation == "X^Y")
605     {
606         result = Math.pow(first,second);
607         answer = String.format("%.2f", result);
608         textField.setText(answer);
609     }
610
611 }
612
613 });
614 btnEqual.setFont(new Font("Times New Roman", Font.BOLD, 30));
615 frmSmartCalci.getContentPane().add(btnEqual);
616
617 JButton btnC = new JButton("C");
618 btnC.setBounds(158, 278, 67, 50);
619 btnC.setFocusable(false);
620 btnC.setForeground(Color.WHITE);
621 btnC.setBackground(new Color(178, 34, 34));
622 btnC.setEnabled(false);
623 btnC.addActionListener(new ActionListener() {
624     public void actionPerformed(ActionEvent e) {
625         textField.setText(null);
626     }
627 });
628
629 btnC.setFont(new Font("Times New Roman", Font.BOLD, 25));
630 frmSmartCalci.getContentPane().add(btnC);
631
632 JButton btnSinh = new JButton("sinh");
633 btnSinh.setBounds(158, 218, 67, 50);
634 btnSinh.setFocusable(false);
635 btnSinh.setForeground(new Color(255, 255, 255));
636 btnSinh.setBackground(new Color(112, 128, 144));
637 btnSinh.setEnabled(false);
638 btnSinh.addActionListener(new ActionListener() {
639     public void actionPerformed(ActionEvent e) {
640         double a = Math.sinh(Double.parseDouble(textField.getText()));
641         textField.setText("");
642         textField.setText(textField.getText()+a);
643     }
644 });
645 btnSinh.setFont(new Font("Times New Roman", Font.PLAIN, 17));
646 frmSmartCalci.getContentPane().add(btnSinh);
647
648 JButton btnCosh = new JButton("cosh");
649 btnCosh.setBounds(234, 217, 69, 50);
650 btnCosh.setFocusable(false);
651 btnCosh.setForeground(new Color(255, 255, 255));
652 btnCosh.setBackground(new Color(112, 128, 144));
653 btnCosh.setEnabled(false);
```

```
654         btnCosh.addActionListener(new ActionListener() {
655             public void actionPerformed(ActionEvent e) {
656                 double a = Math.cosh(Double.parseDouble(textField.getText()));
657                 textField.setText("");
658                 textField.setText(textField.getText()+a);
659             }
660         });
661         btnCosh.setFont(new Font("Times New Roman", Font.PLAIN, 18));
662         frmSmartCalci.getContentPane().add(btnCosh);
663
664         JButton btnTanh = new JButton("tanh");
665         btnTanh.setBounds(312, 218, 69, 50);
666         btnTanh.setFocusable(false);
667         btnTanh.setForeground(new Color(255, 255, 255));
668         btnTanh.setBackground(new Color(112, 128, 144));
669         btnTanh.setEnabled(false);
670         btnTanh.addActionListener(new ActionListener() {
671             public void actionPerformed(ActionEvent e) {
672                 double a = Math.tanh(Double.parseDouble(textField.getText()));
673                 textField.setText("");
674                 textField.setText(textField.getText()+a);
675             }
676         });
677         btnTanh.setFont(new Font("Times New Roman", Font.PLAIN, 17));
678         frmSmartCalci.getContentPane().add(btnTanh);
679
680         JButton btn0 = new JButton("0");
681         btn0.setBounds(87, 517, 140, 50);
682         btn0.setFocusable(false);
683         btn0.setForeground(new Color(255, 255, 255));
684         btn0.setBackground(new Color(105, 105, 105));
685         btn0.setEnabled(false);
686         btn0.addActionListener(new ActionListener() {
687             public void actionPerformed(ActionEvent e) {
688                 String number = textField.getText()+btn0.getText();
689                 textField.setText(number);
690             }
691         });
692         btn0.setFont(new Font("Times New Roman", Font.BOLD, 30));
693         frmSmartCalci.getContentPane().add(btn0);
694
695
696         textField = new JTextField();
697         textField.setBounds(12, 38, 369, 79);
698         textField.setEnabled(false);
699         textField.setFont(new Font("Tahoma", Font.PLAIN, 20));
700         frmSmartCalci.getContentPane().add(textField);
701         textField.setColumns(10);
702
703         JSeparator separator = new JSeparator();
704         separator.setBounds(408, 16, 7, 551);
705         separator.setForeground(Color.WHITE);
706         separator.setOrientation(SwingConstants.VERTICAL);
707         frmSmartCalci.getContentPane().add(separator);
708
709         JLabel lblNewLabel2 = new JLabel("Number Converter");
710         lblNewLabel2.setBounds(448, 16, 238, 62);
```

```
711     lblNewLabel2.setFocusable(false);
712     lblNewLabel2.setEnabled(false);
713     lblNewLabel2.setFont(new Font("Times New Roman", Font.BOLD, 25));
714     lblNewLabel2.setForeground(Color.WHITE);
715     frmSmartCalci.getContentPane().add(lblNewLabel2);
716
717
718
719     textFieldDecimal = new JTextField();
720     textFieldDecimal.setBounds(448, 111, 238, 62);
721     textFieldDecimal.setForeground(Color.BLACK);
722     textFieldDecimal.setEnabled(false);
723     textFieldDecimal.setFont(new Font("Times New Roman", Font.BOLD, 15));
724     frmSmartCalci.getContentPane().add(textFieldDecimal);
725     textFieldDecimal.setColumns(10);
726
727     textFieldBinary = new JTextField();
728     textFieldBinary.setBounds(448, 231, 238, 62);
729     textFieldBinary.setForeground(Color.BLACK);
730     textFieldBinary.setEnabled(false);
731     textFieldBinary.setFont(new Font("Times New Roman", Font.PLAIN, 15));
732     textFieldBinary.setColumns(10);
733     frmSmartCalci.getContentPane().add(textFieldBinary);
734
735     textFieldOctal = new JTextField();
736     textFieldOctal.setBounds(448, 349, 238, 62);
737     textFieldOctal.setForeground(Color.BLACK);
738     textFieldOctal.setEnabled(false);
739     textFieldOctal.setFont(new Font("Times New Roman", Font.PLAIN, 15));
740     textFieldOctal.setColumns(10);
741     frmSmartCalci.getContentPane().add(textFieldOctal);
742
743     textFieldHex = new JTextField();
744     textFieldHex.setBounds(448, 459, 238, 62);
745     textFieldHex.setForeground(Color.BLACK);
746     textFieldHex.setEnabled(false);
747     textFieldHex.setFont(new Font("Times New Roman", Font.PLAIN, 15));
748     textFieldHex.setColumns(10);
749     frmSmartCalci.getContentPane().add(textFieldHex);
750
751
752     JSeparator separator2 = new JSeparator();
753     separator2.setBounds(435, 63, 220, 2);
754     frmSmartCalci.getContentPane().add(separator2);
755
756     JSeparator separator3 = new JSeparator();
757     separator3.setBounds(714, 16, 7, 551);
758     separator3.setOrientation(SwingConstants.VERTICAL);
759     separator3.setForeground(Color.WHITE);
760     frmSmartCalci.getContentPane().add(separator3);
761
762     JLabel lblAsciiConverter = new JLabel("Ascii Converter");
763     lblAsciiConverter.setBounds(777, 16, 238, 62);
764     lblAsciiConverter.setForeground(Color.WHITE);
765     lblAsciiConverter.setFont(new Font("Times New Roman", Font.BOLD, 25));
766     lblAsciiConverter.setFocusable(false);
767     lblAsciiConverter.setEnabled(false);
```

```
768     frmSmartCalci.getContentPane().add(lblAsciiConverter);
769
770     JSeparator separator4 = new JSeparator();
771     separator4.setBounds(757, 63, 199, 2);
772     frmSmartCalci.getContentPane().add(separator4);
773
774     JLabel lblInputData = new JLabel("Input Data");
775     lblInputData.setBounds(820, 88, 107, 33);
776     lblInputData.setEnabled(false);
777     lblInputData.setFont(new Font("Times New Roman", Font.PLAIN, 19));
778     lblInputData.setBackground(Color.DARK_GRAY);
779     lblInputData.setForeground(Color.WHITE);
780     frmSmartCalci.getContentPane().add(lblInputData);
781
782     textPaneInput = new JTextPane();
783     textPaneInput.setBounds(731, 123, 264, 144);
784     textPaneInput.setEnabled(false);
785     textPaneInput.setFont(new Font("Times New Roman", Font.PLAIN, 15));
786     frmSmartCalci.getContentPane().add(textPaneInput);
787
788     JLabel lblOutput = new JLabel("Ascii Value");
789     lblOutput.setBounds(820, 292, 107, 25);
790     lblOutput.setEnabled(false);
791     lblOutput.setFont(new Font("Times New Roman", Font.PLAIN, 20));
792     lblOutput.setBackground(Color.DARK_GRAY);
793     lblOutput.setForeground(Color.WHITE);
794     frmSmartCalci.getContentPane().add(lblOutput);
795
796     textPaneOutput = new JTextPane();
797     textPaneOutput.setBounds(731, 322, 264, 158);
798     textPaneOutput.setEnabled(false);
799     frmSmartCalci.getContentPane().add(textPaneOutput);
800
801     JButton btnAsciiConvert = new JButton("Convert");
802     btnAsciiConvert.setBounds(910, 500, 85, 21);
803     btnAsciiConvert.addActionListener(new ActionListener() {
804         public void actionPerformed(ActionEvent e) {
805             String text = textPaneInput.getText();
806             String str = text.replaceAll("\\s", "");
807             try {
808                 byte[] bytes = str.getBytes("US-ASCII");
809                 textPaneOutput.setText(Arrays.toString(bytes));
810             }
811             catch (java.io.UnsupportedEncodingException c)
812             {
813                 c.printStackTrace();
814             }
815         }
816     });
817     btnAsciiConvert.setFocusable(false);
818     btnAsciiConvert.setEnabled(false);
819     btnAsciiConvert.setFont(new Font("Times New Roman", Font.PLAIN, 16));
820     frmSmartCalci.getContentPane().add(btnAsciiConvert);
821
822     JLabel lblFooter = new JLabel("\u00a9 2020 : TEAM POTTER HEADS By MANI
823 );
824     lblFooter.setBounds(757, 560, 213, 25);
```



```
824     lblFooter.setEnabled(false);
825     lblFooter.setFont(new Font("Calibri", Font.ITALIC, 9));
826     lblFooter.setBackground(Color.DARK_GRAY);
827     lblFooter.setForeground(Color.WHITE);
828     frmSmartCalci.getContentPane().add(lblFooter);
829
830     JCheckBox chckbxDecimal = new JCheckBox("Decimal");
831     chckbxDecimal.setBounds(525, 84, 93, 21);
832     chckbxDecimal.setFocusable(false);
833     chckbxDecimal.addActionListener(new ActionListener() {
834         public void actionPerformed(ActionEvent e) {
835             textFieldDecimal.setEnabled(true);
836             textFieldBinary.setEnabled(false);
837             textFieldOctal.setEnabled(false);
838             textFieldHex.setEnabled(false);
839             conversion = 1;
840         }
841     });
842     buttonGroup.add(chckbxDecimal);
843     chckbxDecimal.setEnabled(false);
844     chckbxDecimal.setFont(new Font("Times New Roman", Font.PLAIN, 20));
845     chckbxDecimal.setBackground(Color.DARK_GRAY);
846     chckbxDecimal.setForeground(Color.WHITE);
847     frmSmartCalci.getContentPane().add(chckbxDecimal);
848
849     JCheckBox chckbxBinary = new JCheckBox("Binary");
850     chckbxBinary.setBounds(525, 204, 93, 21);
851     chckbxBinary.setFocusable(false);
852     chckbxBinary.addActionListener(new ActionListener() {
853         public void actionPerformed(ActionEvent e) {
854             textFieldDecimal.setEnabled(false);
855             textFieldBinary.setEnabled(true);
856             textFieldOctal.setEnabled(false);
857             textFieldHex.setEnabled(false);
858             conversion = 2;
859         }
860     });
861     buttonGroup.add(chckbxBinary);
862     chckbxBinary.setEnabled(false);
863     chckbxBinary.setFont(new Font("Times New Roman", Font.PLAIN, 20));
864     chckbxBinary.setBackground(Color.DARK_GRAY);
865     chckbxBinary.setForeground(Color.WHITE);
866     frmSmartCalci.getContentPane().add(chckbxBinary);
867
868     JCheckBox chckbxOctal = new JCheckBox("Octal");
869     chckbxOctal.setBounds(525, 322, 93, 21);
870     chckbxOctal.setFocusable(false);
871     chckbxOctal.addActionListener(new ActionListener() {
872         public void actionPerformed(ActionEvent e) {
873             textFieldDecimal.setEnabled(false);
874             textFieldBinary.setEnabled(false);
875             textFieldOctal.setEnabled(true);
876             textFieldHex.setEnabled(false);
877             conversion = 3;
878         }
879     });
880     buttonGroup.add(chckbxOctal);
```

```
881     chckbxOctal.setEnabled(false);
882     chckbxOctal.setFont(new Font("Times New Roman", Font.PLAIN, 20));
883     chckbxOctal.setBackground(Color.DARK_GRAY);
884     chckbxOctal.setForeground(Color.WHITE);
885     frmSmartCalci.getContentPane().add(chckbxOctal);
886
887     JCheckBox chckbxHex = new JCheckBox("Hex");
888     chckbxHex.setBounds(525, 432, 93, 21);
889     chckbxHex.setFocusable(false);
890     chckbxHex.addActionListener(new ActionListener() {
891         public void actionPerformed(ActionEvent e) {
892             textFieldDecimal.setEnabled(false);
893             textFieldBinary.setEnabled(false);
894             textFieldOctal.setEnabled(false);
895             textFieldHex.setEnabled(true);
896             conversion = 4;
897         }
898     });
899     buttonGroup.add(chckbxHex);
900     chckbxHex.setEnabled(false);
901     chckbxHex.setBackground(Color.DARK_GRAY);
902     chckbxHex.setForeground(Color.WHITE);
903     chckbxHex.setFont(new Font("Times New Roman", Font.PLAIN, 20));
904     frmSmartCalci.getContentPane().add(chckbxHex);
905
906
907
908     JButton btnClear = new JButton("clear");
909     btnClear.setBounds(601, 546, 85, 21);
910     btnClear.setFocusable(false);
911     btnClear.addActionListener(new ActionListener() {
912         public void actionPerformed(ActionEvent e) {
913             textFieldDecimal.setText(null);
914             textFieldBinary.setText(null);
915             textFieldOctal.setText(null);
916             textFieldHex.setText(null);
917             textFieldDecimal.setEnabled(false);
918             textFieldBinary.setEnabled(false);
919             textFieldOctal.setEnabled(false);
920             textFieldHex.setEnabled(false);
921             buttonGroup.clearSelection();
922         }
923     });
924     btnClear.setEnabled(false);
925     btnClear.setFont(new Font("Times New Roman", Font.PLAIN, 20));
926     frmSmartCalci.getContentPane().add(btnClear);
927
928
929     JButton btnClearAscii = new JButton("Clear Ascii");
930     btnClearAscii.setBounds(729, 501, 107, 21);
931     btnClearAscii.addActionListener(new ActionListener() {
932         public void actionPerformed(ActionEvent e) {
933             textPaneInput.setText(null);
934             textPaneOutput.setText(null);
935         }
936     });
937     });
```

```
938     btnClearAscii.setFocusable(false);
939     btnClearAscii.setEnabled(false);
940     btnClearAscii.setFont(new Font("Times New Roman", Font.PLAIN, 15));
941     frmSmartCalci.getContentPane().add(btnClearAscii);
942
943     JButton btnConvert = new JButton("Convert");
944     btnConvert.setBounds(448, 548, 85, 21);
945     btnConvert.setFocusable(false);
946     btnConvert.addActionListener(new ActionListener() {
947         public void actionPerformed(ActionEvent e) {
948             if(conversion == 1)
949             {
950                 DecimalInt = Integer.parseInt(textFieldDecimal.getText());
951                 Binarystring = Integer.toBinaryString(DecimalInt);
952                 Octalstring = Integer.toOctalString(DecimalInt);
953                 Hexstring = Integer.toHexString(DecimalInt);
954                 textFieldBinary.setText(Binarystring);
955                 textFieldOctal.setText(Octalstring);
956                 textFieldHex.setText(Hexstring);
957                 textFieldDecimal.setEnabled(true);
958                 textFieldBinary.setEnabled(true);
959                 textFieldOctal.setEnabled(true);
960                 textFieldHex.setEnabled(true);
961             }
962             else if(conversion == 2)
963             {
964                 BinaryInt = Integer.parseInt(textFieldBinary.getText());
965                 String Binary_str = Integer.toString(BinaryInt);
966                 int decimal=Integer.parseInt(Binary_str,2);
967                 Decimalstring = Integer.toString(decimal);
968                 Octalstring = Integer.toOctalString(decimal);
969                 Hexstring = Integer.toHexString(decimal);
970                 textFieldDecimal.setText(Decimalstring);
971                 textFieldOctal.setText(Octalstring);
972                 textFieldHex.setText(Hexstring);
973                 textFieldDecimal.setEnabled(true);
974                 textFieldBinary.setEnabled(true);
975                 textFieldOctal.setEnabled(true);
976                 textFieldHex.setEnabled(true);
977             }
978             else if(conversion == 3)
979             {
980                 OctalInt = Integer.parseInt(textFieldOctal.getText());
981                 String Octal_str = Integer.toString(OctalInt);
982                 int decimal = Integer.parseInt(Octal_str,8);
983                 Decimalstring = Integer.toString(decimal);
984                 Binarystring = Integer.toBinaryString(decimal);
985                 Hexstring = Integer.toHexString(decimal);
986                 textFieldDecimal.setText(Decimalstring);
987                 textFieldBinary.setText(Binarystring);
988                 textFieldHex.setText(Hexstring);
989                 textFieldDecimal.setEnabled(true);
990                 textFieldBinary.setEnabled(true);
991                 textFieldOctal.setEnabled(true);
992                 textFieldHex.setEnabled(true);
993             }
994         }
```

```

995
996     }
997     else if(conversion == 4)
998     {
999         HexInput = textFieldHex.getText();
1000         int decimal = Integer.parseInt(HexInput,16);
1001         Decimalstring = Integer.toString(decimal);
1002         Binarystring = Integer.toBinaryString(decimal);
1003         Octalstring = Integer.toOctalString(decimal);
1004         textFieldDecimal.setText(Decimalstring);
1005         textFieldBinary.setText(Binarystring);
1006         textFieldOctal.setText(Octalstring);
1007         textFieldDecimal.setEnabled(true);
1008         textFieldBinary.setEnabled(true);
1009         textFieldOctal.setEnabled(true);
1010         textFieldHex.setEnabled(true);
1011     }
1012 }
1013
1014 }
1015 });
1016 btnConvert.setHorizontalAlignment(SwingConstants.RIGHT);
1017 btnConvert.setFont(new Font("Times New Roman", Font.PLAIN, 16));
1018 btnConvert.setEnabled(false);
1019 frmSmartCalci.getContentPane().add(btnConvert);
1020
1021
1022 JRadioButton rdbtnOFF = new JRadioButton("OFF");
1023 rdbtnOFF.setBounds(228, 123, 102, 28);
1024 rdbtnOFF.setFocusable(false);
1025 rdbtnOFF.setEnabled(false);
1026 rdbtnOFF.setForeground(Color.WHITE);
1027 rdbtnOFF.setBackground(Color.DARK_GRAY);
1028 rdbtnOFF.addActionListener(new ActionListener() {
1029     public void actionPerformed(ActionEvent e) {
1030
1031         btn1.setEnabled(false);
1032         btn2.setEnabled(false);
1033         btn3.setEnabled(false);
1034         btn4.setEnabled(false);
1035         btn5.setEnabled(false);
1036         btn6.setEnabled(false);
1037         btn7.setEnabled(false);
1038         btn8.setEnabled(false);
1039         btn9.setEnabled(false);
1040         btnDot.setEnabled(false);
1041         btnAdd.setEnabled(false);
1042         btnSubtract.setEnabled(false);
1043         btnMultiply.setEnabled(false);
1044         btnDivides.setEnabled(false);
1045         btnEqual.setEnabled(false);
1046         btnRoot.setEnabled(false);
1047         btnExponent.setEnabled(false);
1048         btnSine.setEnabled(false);
1049         btnCos.setEnabled(false);
1050         btnTan.setEnabled(false);
1051         btnSineh.setEnabled(false);

```

```
1052         btnCosh.setEnabled(false);
1053         btnTanh.setEnabled(false);
1054         btnLog.setEnabled(false);
1055         btnReciprocal.setEnabled(false);
1056         btnSquare.setEnabled(false);
1057         btnCube.setEnabled(false);
1058         btnPercentage.setEnabled(false);
1059         btnB.setEnabled(false);
1060         btnC.setEnabled(false);
1061         btnPlusOrMinus.setEnabled(false);
1062         btn0.setEnabled(false);
1063         btnXPowY.setEnabled(false);
1064         btnFactorial.setEnabled(false);
1065         textField.setEnabled(false);
1066         textFieldDecimal.setEnabled(false);
1067         textFieldBinary.setEnabled(false);
1068         textFieldOctal.setEnabled(false);
1069         textFieldHex.setEnabled(false);
1070         lblNewLabel.setEnabled(false);
1071         btnVersion.setEnabled(false);
1072         textField.setText(null);
1073         textFieldDecimal.setText(null);
1074         textFieldBinary.setText(null);
1075         textFieldOctal.setText(null);
1076         textFieldHex.setText(null);
1077         separator.setEnabled(false);
1078         lblNewLabel2.setEnabled(false);
1079         chckbxDecimal.setEnabled(false);
1080         chckbxBinary.setEnabled(false);
1081         chckbxOctal.setEnabled(false);
1082         chckbxHex.setEnabled(false);
1083         separator2.setEnabled(false);
1084         btnClear.setEnabled(false);
1085         btnConvert.setEnabled(false);
1086         lblAsciiConverter.setEnabled(false);
1087         lblInputData.setEnabled(false);
1088         lblOutput.setEnabled(false);
1089         textPaneInput.setEnabled(false);
1090         textPaneOutput.setEnabled(false);
1091         btnAsciiConvert.setEnabled(false);
1092         btnClearAscii.setEnabled(false);
1093         textPaneInput.setText(null);
1094         textPaneOutput.setText(null);
1095         buttonGroup.clearSelection();
1096
1097     }
1098 });
1099 buttonGroup_1.add(rdbtnOFF);
1100 rdbtnOFF.setFont(new Font("Times New Roman", Font.BOLD, 25));
1101 frmSmartCalci.getContentPane().add(rdbtnOFF);
1102
1103 JRadioButton rdbtnON = new JRadioButton("ON");
1104 rdbtnON.setBounds(68, 123, 65, 28);
1105 rdbtnON.setFocusable(false);
1106 rdbtnON.setForeground(Color.WHITE);
1107 rdbtnON.setBackground(Color.DARK_GRAY);
1108 rdbtnON.addActionListener(new ActionListener() {
```

```
1109         public void actionPerformed(ActionEvent e) {
1110             btn1.setEnabled(true);
1111             btn2.setEnabled(true);
1112             btn3.setEnabled(true);
1113             btn4.setEnabled(true);
1114             btn5.setEnabled(true);
1115             btn6.setEnabled(true);
1116             btn7.setEnabled(true);
1117             btn8.setEnabled(true);
1118             btn9.setEnabled(true);
1119             btnDot.setEnabled(true);
1120             btnAdd.setEnabled(true);
1121             btnSubtract.setEnabled(true);
1122             btnMultiply.setEnabled(true);
1123             btnDivides.setEnabled(true);
1124             btnEqual.setEnabled(true);
1125             btnRoot.setEnabled(true);
1126             btnExponent.setEnabled(true);
1127             btnSine.setEnabled(true);
1128             btnCos.setEnabled(true);
1129             btnTan.setEnabled(true);
1130             btnSineh.setEnabled(true);
1131             btnCosh.setEnabled(true);
1132             btnTanh.setEnabled(true);
1133             btnLog.setEnabled(true);
1134             btnReciprocal.setEnabled(true);
1135             btnSquare.setEnabled(true);
1136             btnCube.setEnabled(true);
1137             btnPercentage.setEnabled(true);
1138             btnB.setEnabled(true);
1139             btnC.setEnabled(true);
1140             btnPlusOrMinus.setEnabled(true);
1141             btn0.setEnabled(true);
1142             btnXPowY.setEnabled(true);
1143             btnFactorial.setEnabled(true);
1144             textField.setEnabled(true);
1145             lblNewLabel.setEnabled(true);
1146             rdbtnOFF.setEnabled(true);
1147             btnVersion.setEnabled(true);
1148             separator.setEnabled(true);
1149             lblNewLabel2.setEnabled(true);
1150             chckbxDecimal.setEnabled(true);
1151             chckbxBinary.setEnabled(true);
1152             chckbxOctal.setEnabled(true);
1153             chckbxHex.setEnabled(true);
1154             textFieldDecimal.setEnabled(true);
1155             textFieldBinary.setEnabled(true);
1156             textFieldOctal.setEnabled(true);
1157             textFieldHex.setEnabled(true);
1158             separator2.setEnabled(true);
1159             btnClear.setEnabled(true);
1160             btnConvert.setEnabled(true);
1161             lblAsciiConverter.setEnabled(true);
1162             lblInputData.setEnabled(true);
1163             lblOutput.setEnabled(true);
1164             textPaneInput.setEnabled(true);
1165             textPaneOutput.setEnabled(true);
```



```
1166         btnAsciiConvert.setEnabled(true);
1167         btnClearAscii.setEnabled(true);
1168         textPaneOutput.setEditable(false);
1169         buttonGroup.clearSelection();
1170     }
1171 });
1172 buttonGroup_1.add(rdbtnON);
1173 rdbtnON.setFont(new Font("Times New Roman", Font.BOLD, 25));
1174 frmSmartCalci.getContentPane().add(rdbtnON);
1175
1176 JMenuBar menuBar = new JMenuBar();
1177 frmSmartCalci.setJMenuBar(menuBar);
1178
1179 JMenu mnFile = new JMenu("File");
1180 mnFile.setFont(new Font("Segoe UI", Font.BOLD, 15));
1181 menuBar.add(mnFile);
1182
1183 JMenuItem mntmStandard = new JMenuItem("Standard Calculator");
1184 mntmStandard.addActionListener(new ActionListener() {
1185     public void actionPerformed(ActionEvent e) {
1186         frmSmartCalci.setBounds(100, 100, 407, 640);
1187     }
1188 });
1189 mntmStandard.setAccelerator(KeyStroke.getKeyStroke(KeyEvent.VK_N,
InputEvent.SHIFT_MASK));
1190 mnFile.add(mntmStandard);
1191
1192 JSeparator Menu_separator_1 = new JSeparator();
1193 mnFile.add(Menu_separator_1);
1194
1195 JMenuItem mntmNumberConverter = new JMenuItem("Number Converter");
1196 mntmNumberConverter.addActionListener(new ActionListener() {
1197     public void actionPerformed(ActionEvent e) {
1198         frmSmartCalci.setBounds(100, 100, 724, 643);
1199     }
1200 });
1201 mntmNumberConverter.setAccelerator(KeyStroke.getKeyStroke(KeyEvent.VK_C,
InputEvent.SHIFT_MASK));
1202 mnFile.add(mntmNumberConverter);
1203
1204 JSeparator Menu_separator_2 = new JSeparator();
1205 mnFile.add(Menu_separator_2);
1206
1207 JMenuItem mntmAsciiConverter = new JMenuItem("Ascii Converter");
1208 mntmAsciiConverter.addActionListener(new ActionListener() {
1209     public void actionPerformed(ActionEvent e) {
1210         frmSmartCalci.setBounds(100, 100, 1025, 645);
1211     }
1212 });
1213 mntmAsciiConverter.setAccelerator(KeyStroke.getKeyStroke(KeyEvent.VK_A,
InputEvent.SHIFT_MASK));
1214 mnFile.add(mntmAsciiConverter);
1215
1216 JMenu mnManual = new JMenu("Instruction Mannual");
1217 mnManual.setFont(new Font("Segoe UI", Font.BOLD, 15));
1218 menuBar.add(mnManual);
1219
```

```
1220 JMenuItem mntmPdfbutton = new JMenuItem("click Here to View Mannual.");
1221 mntmPdfbutton.addActionListener(new ActionListener() {
1222     public void actionPerformed(ActionEvent e) {
1223         try {
1224             Desktop.getDesktop().open(new java.io.File("File\\Mannual.pdf"));
1225         }catch(Exception a) {
1226             a.printStackTrace();
1227         }
1228     }
1229 });
1230 mnManual.add(mntmPdfbutton);
1231
1232
1233
1234 }
1235 }
```