

Class Diagram

Class main_program

Attribute
<ul style="list-style-type: none">- window : JFrame- department_ : JComboBox- month_ : JComboBox- year_ : JComboBox- day_ : JComboBox- search : JButton- calculate : JButton- area : JTextArea- subScroll : JScrollPane- money : Int- department_data : String[]- month_data : String[]- day_data : String[]- year_data : String[]
Method
<ul style="list-style-type: none">+ main_program()+ Countwork(String day, String month, String year, String workin, String workout, String department): void+ Cal_late (int workin) : Int+ Cal_ot (int workout) : Int+ actionPerformed(ActionEvent e) : void

Java Code

```
1 package finaltest.final3;
2
3 import java.awt.*;
4 import java.awt.event.*;
5 import java.io.BufferedReader;
6 import java.io.FileReader;
7 import java.io.FileWriter;
8 import java.io.IOException;
9
10 import javax.swing.*;
11
12 public class main_program extends JFrame implements ActionListener {
13
14     private JFrame window;
15     private JComboBox department_, month_, year_, day_;
16     private JButton search, calculate;
17     private JTextArea area;
18     private JScrollPane subScroll;
19
20     private int money;
21
22     private String[] department_data = { "accounting department",
23     "finance department", "marketing department",
24     "sales department", "maintenance department",
25     "administrative department" };
26     private String[] month_data = { "January", "February", "March",
27     "April", "May", "June", "July", "August",
28     "September", "October", "November", "December" };
29     private String[] day_data = { "1", "2", "3", "4", "5", "6", "7",
30     "8",
31     "9", "10", "11", "12", "13", "14", "15", "16", "17", "18",
32     "19", "20", "21", "22", "23", "24", "25", "26",
33     "27", "28", "29", "30" };
34     private String[] year_data = { "2018", "2019", "2020", "2021",
35     "2022" };
```

```

30
31     public main_program() {
32         super("attendance table");
33         Container container = getContentPane();
34         container.setLayout(new FlowLayout());
35
36         container.add(new JLabel("The Round Family Co., Ltd."));
37         container.add(new JLabel(""));
38     };
39     container.add(new JLabel("department"));
40     department_ = new JComboBox(department_data);
41     container.add(department_);
42
43     container.add(new JLabel(
44         "Day month year
45         "
46     ));
47
48     day_ = new JComboBox(day_data);
49     day_.getSelectedItem();
50     container.add(day_);
51
52     month_ = new JComboBox(month_data);
53     container.add(month_);
54
55     year_ = new JComboBox(year_data);
56     container.add(year_);
57
58     search = new JButton("Search");
59     search.addActionListener(this);
60     container.add(search);
61
62     area = new JTextArea(20, 32);
63     area.setEditable(false);
64     subScroll = new JScrollPane(area);
65     container.add(subScroll);
66
67     calculate = new JButton("Salary Summary");
68     calculate.addActionListener(this);
69     container.add(calculate);
70 }

```

```
1 public void Countwork(String day, String month, String year, String
workin, String workout, String department) {
2     if (department == department) {
3
4         try {
5             FileWriter myWriter = new FileWriter(
"finaltest/final3/workin_out.txt", true);
6             myWriter.append(day + "\t" + month + "\t" + year + "\n"
);
7             myWriter.append(department + "\n");
8             myWriter.append(workin + "\t" + workout);
9             myWriter.close();
10            System.out.println("Successfully wrote to the file.");
11        } catch (IOException e) {
12            System.out.println("An error occurred.");
13            e.printStackTrace();
14        }
15    }
16 }
17
18 public int Cal_late(int workin) {
19     int money_tmp = this.money;
20     if (workin > 9 || workin < 10.30) {
21         for (int i = workin; i <= 9; i--) {
22             money_tmp = -1;
23         }
24     } else if (workin > 10.30) {
25         money_tmp = -300;
26     }
27
28     this.money = money_tmp;
29     return this.money;
30 }
31
32 public int Cal_ot(int workout) {
33     int money_tmp = this.money;
34     int ot;
35     if (workout > 16) {
36         ot = workout - 16;
37         money = ot * 60;
38     }
39
40     this.money = money_tmp;
41     return this.money;
42 }
```



```
1 public static void main(String[] args) {
2     main_program window = new main_program();
3     window.setSize(350, 520);
4     window.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
5     window.setVisible(true);
6 }
7
8 public void actionPerformed(ActionEvent e) {
9     String department_tmp = String.valueOf(department_.
10     getSelectedItem());
11     if (e.getSource() == search) {
12         if (department_tmp.equals("accounting department")) {
13             try {
14                 FileReader reader = new FileReader(
15                 "finaltest/final3/accounting.txt");
16                 BufferedReader br = new BufferedReader(reader);
17                 area.read(br, null);
18                 br.close();
19                 area.requestFocus();
20             } catch (Exception e2) {
21             }
22         }
23     }
24 }
```

GUI

