

```
1 package src;
2
3 import java.io.File;
4 import java.io.FileNotFoundException;
5 import java.io.IOException;
6 import java.util.Arrays;
7 import java.util.InputMismatchException;
8 import java.util.Scanner;
9
10 public class ProjectMain {
11     static int floor;
12     public static People[] queue = new People[6];
13
14     public static void main(String[] args) throws
        IOException {
15         // create an array and fill it with employee
        objects
16         People[] employees = new People[50];
17         // read in all the employees from file
18         try {
19             File fileObj = new File("C:\\Users\\cbcha
        \\Downloads\\employees.txt");
20             Scanner scanObj = new Scanner(fileObj);
21             for (int i = 0; i < 50; i++) {
22                 if (scanObj.hasNextLine()) {
23                     String data = scanObj.nextLine();
24                     int idTest;
25                     int depTest;
26                     String nameTest;
27
28                     String idString = data.substring(
        0, 3);
29                     String depString = data.substring
        (data.length() - 1, data.length());
30
31                     idTest = Integer.parseInt(
        idString);
32                     depTest = Integer.parseInt(
        depString);
33                     nameTest = data.substring(3, data
        .length() - 1);
```

```

34
35         People entry = new People(idTest
    , depTest, nameTest);
36         employees[i] = entry;
37     }
38 }
39 } catch (FileNotFoundException e) {
40     System.out.println("The file you entered
in incorrect, please enter a new file:");
41     Scanner keyboard = new Scanner(System.in
);
42     String newFile = keyboard.nextLine();
43     File fileObj = new File(newFile);
44     Scanner scanObj = new Scanner(fileObj);
45     for (int i = 0; i < 50; i++) {
46         if (scanObj.hasNextLine()) {
47             String data = scanObj.nextLine();
48             int idTest;
49             int depTest;
50             String nameTest;
51
52             String idString = data.substring(
0, 3);
53             String depString = data.substring
(data.length() - 1, data.length());
54
55             idTest = Integer.parseInt(
idString);
56             depTest = Integer.parseInt(
depString);
57             nameTest = data.substring(3, data
.length() - 1);
58
59             People entry = new People(idTest
, depTest, nameTest);
60             employees[i] = entry;
61         }
62     }
63 }
64     // get which employee is waiting next in the
queue and fill up the queue with 6 employees

```

```

65         Scanner keyboard = new Scanner(System.in);
66         int counter = 0;
67         while (counter < 6) {
68             try {
69                 System.out.println("Please scan your
ID number: ");
70                 int scan = keyboard.nextInt();
71                 for (int i = 0; i < 50; i++) {
72                     if (scan == employees[i].
getIDnum()) {
73                         System.out.println("This
VERIFIED employee is going to floor " + employees[i
].getFloorNum());
74                         floor = employees[i].
getFloorNum();
75                         // add this employee to the
queue
76                         queue[counter] = new People(
employees[i].getIDnum(), employees[i].getFloorNum
(), employees[i].getName());
77                         counter++;
78                     }
79                 }
80             } catch (InputMismatchException e) {
81                 System.out.println("Input error,
please input an integer");
82                 System.out.println("Please scan your
ID number: ");
83                 int scan = keyboard.nextInt();
84                 for (int i = 0; i < 50; i++) {
85                     if (scan == employees[i].
getIDnum()) {
86                         System.out.println("This
VERIFIED employee is going to floor " + employees[i
].getFloorNum());
87                         floor = employees[i].
getFloorNum();
88                         // add this employee to the
queue
89                     // queue.add(new People(employees
[i].getIDnum(), employees[i].getFloorNum(),

```

```

89 employees[i].geteName()));
90         queue[counter] = new People(
    employees[i].getIDnum(), employees[i].getFloorNum
    ( ), employees[i].geteName());
91         counter++;
92     }
93 }
94 }
95     System.out.println("The elevator is now
    fill and will bring all 6 passengers to their floor
    .");
96 }
97     // now there are 6 employees ready to be
    brought to their floor
98     int one = queue[0].getFloorNum();
99     int two = queue[1].getFloorNum();
100    int three = queue[2].getFloorNum();
101    int four = queue[3].getFloorNum();
102    int five = queue[4].getFloorNum();
103    int six = queue[5].getFloorNum();
104    int[] numbers = {one, two, three, four, five
    , six};
105    // sort the floors in ascending order and
    drop off each employee
106    Arrays.sort(numbers);
107    for (int i = 0; i < 6; i++) {
108        Elevator ride = new Elevator(numbers[i
    ]);
109        System.out.println(ride);
110        counter--;
111        if (counter == 0) {
112            System.out.println("All the
    employees have been dropped off, the ride was
    sucessful");
113        }
114    }
115 }
116
117
118 }
119

```

120

121

122