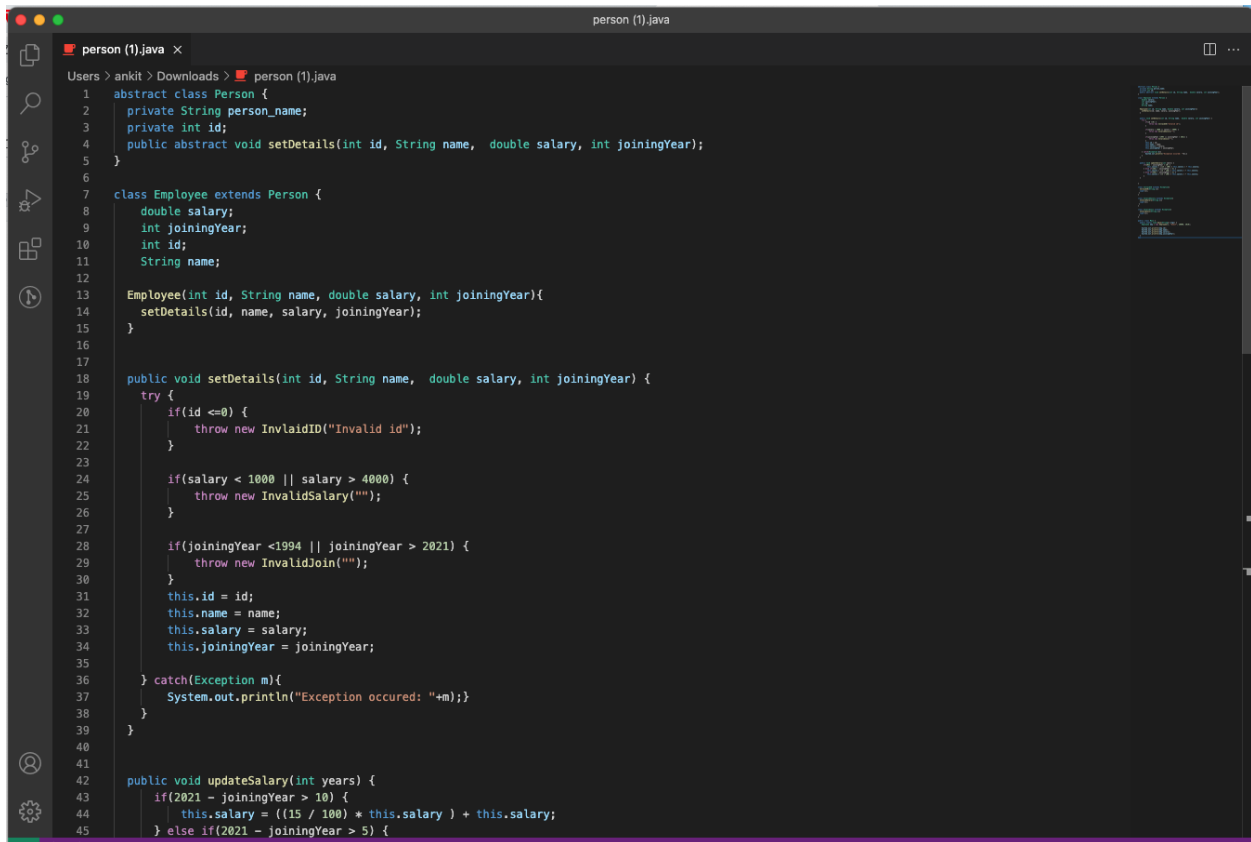
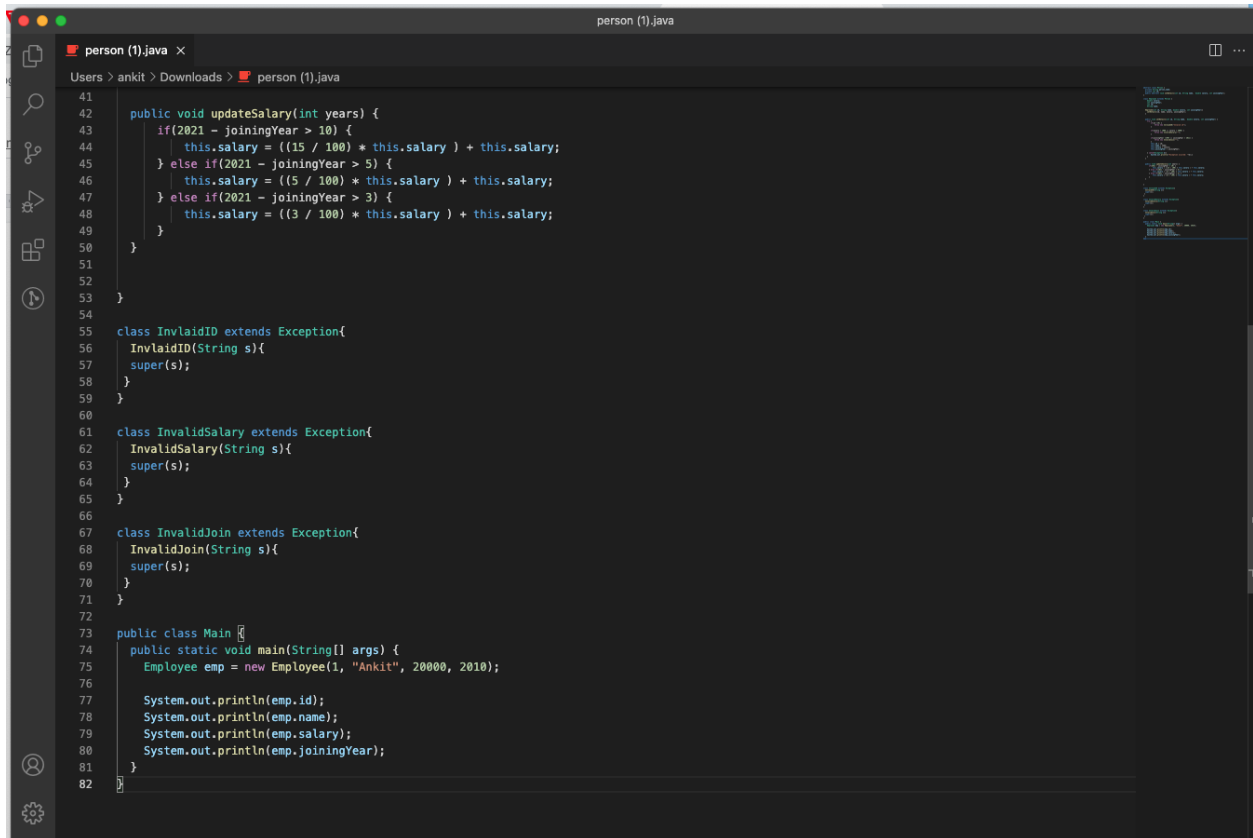


Ankit Phondani  
Roll No. 2001031  
Std. Id: 20561013

Q2.



```
person (1).java
Users > ankit > Downloads > person (1).java
1  abstract class Person {
2      private String person_name;
3      private int id;
4      public abstract void setDetails(int id, String name, double salary, int joiningYear);
5  }
6
7  class Employee extends Person {
8      double salary;
9      int joiningYear;
10     int id;
11     String name;
12
13     Employee(int id, String name, double salary, int joiningYear){
14         setDetails(id, name, salary, joiningYear);
15     }
16
17
18     public void setDetails(int id, String name, double salary, int joiningYear) {
19         try {
20             if(id <=0) {
21                 throw new InvalidID("Invalid id");
22             }
23
24             if(salary < 1000 || salary > 4000) {
25                 throw new InvalidSalary("");
26             }
27
28             if(joiningYear <1994 || joiningYear > 2021) {
29                 throw new InvalidJoin("");
30             }
31             this.id = id;
32             this.name = name;
33             this.salary = salary;
34             this.joiningYear = joiningYear;
35
36         } catch(Exception m){
37             System.out.println("Exception occurred: "+m);}
38         }
39     }
40
41
42     public void updateSalary(int years) {
43         if(2021 - joiningYear > 10) {
44             this.salary = ((15 / 100) * this.salary ) + this.salary;
45         } else if(2021 - joiningYear > 5) {
```

A screenshot of an IDE window titled 'person (1).java'. The code is as follows:

```
41  
42 public void updateSalary(int years) {  
43     if(2021 - joiningYear > 10) {  
44         this.salary = ((15 / 100) * this.salary) + this.salary;  
45     } else if(2021 - joiningYear > 5) {  
46         this.salary = ((5 / 100) * this.salary) + this.salary;  
47     } else if(2021 - joiningYear > 3) {  
48         this.salary = ((3 / 100) * this.salary) + this.salary;  
49     }  
50 }  
51  
52  
53 }  
54  
55 class InvalidID extends Exception{  
56     InvalidID(String s){  
57         super(s);  
58     }  
59 }  
60  
61 class InvalidSalary extends Exception{  
62     InvalidSalary(String s){  
63         super(s);  
64     }  
65 }  
66  
67 class InvalidJoin extends Exception{  
68     InvalidJoin(String s){  
69         super(s);  
70     }  
71 }  
72  
73 public class Main {  
74     public static void main(String[] args) {  
75         Employee emp = new Employee(1, "Ankit", 20000, 2010);  
76  
77         System.out.println(emp.id);  
78         System.out.println(emp.name);  
79         System.out.println(emp.salary);  
80         System.out.println(emp.joiningYear);  
81     }  
82 }
```

```
abstract class Person {  
    private String person_name;  
    private int id;  
    public abstract void setDetails(int id, String name, double salary, int joiningYear);  
}
```

```
class Employee extends Person {  
    double salary;  
    int joiningYear;  
    int id;  
    String name;
```

```
Employee(int id, String name, double salary, int joiningYear){  
    setDetails(id, name, salary, joiningYear);  
}
```

```
public void setDetails(int id, String name, double salary, int joiningYear) {  
    try {  
        if(id <=0) {  
            throw new InvalidID("Invalid id");  
        }  
    }  
}
```

```

    }

    if(salary < 1000 || salary > 4000) {
        throw new InvalidSalary("");
    }

    if(joiningYear < 1994 || joiningYear > 2021) {
        throw new InvalidJoin("");
    }
    this.id = id;
    this.name = name;
    this.salary = salary;
    this.joiningYear = joiningYear;

} catch(Exception m){
    System.out.println("Exception occurred: "+m);}
}
}

public void updateSalary(int years) {
    if(2021 - joiningYear > 10) {
        this.salary = ((15 / 100) * this.salary ) + this.salary;
    } else if(2021 - joiningYear > 5) {
        this.salary = ((5 / 100) * this.salary ) + this.salary;
    } else if(2021 - joiningYear > 3) {
        this.salary = ((3 / 100) * this.salary ) + this.salary;
    }
}

}

class InvalidID extends Exception{
    InvalidID(String s){
        super(s);
    }
}

class InvalidSalary extends Exception{
    InvalidSalary(String s){
        super(s);
    }
}

```

```
class InvalidJoin extends Exception{  
    InvalidJoin(String s){  
        super(s);  
    }  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Employee emp = new Employee(1, "Ankit", 20000, 2010);  
  
        System.out.println(emp.id);  
        System.out.println(emp.name);  
        System.out.println(emp.salary);  
        System.out.println(emp.joiningYear);  
    }  
}
```