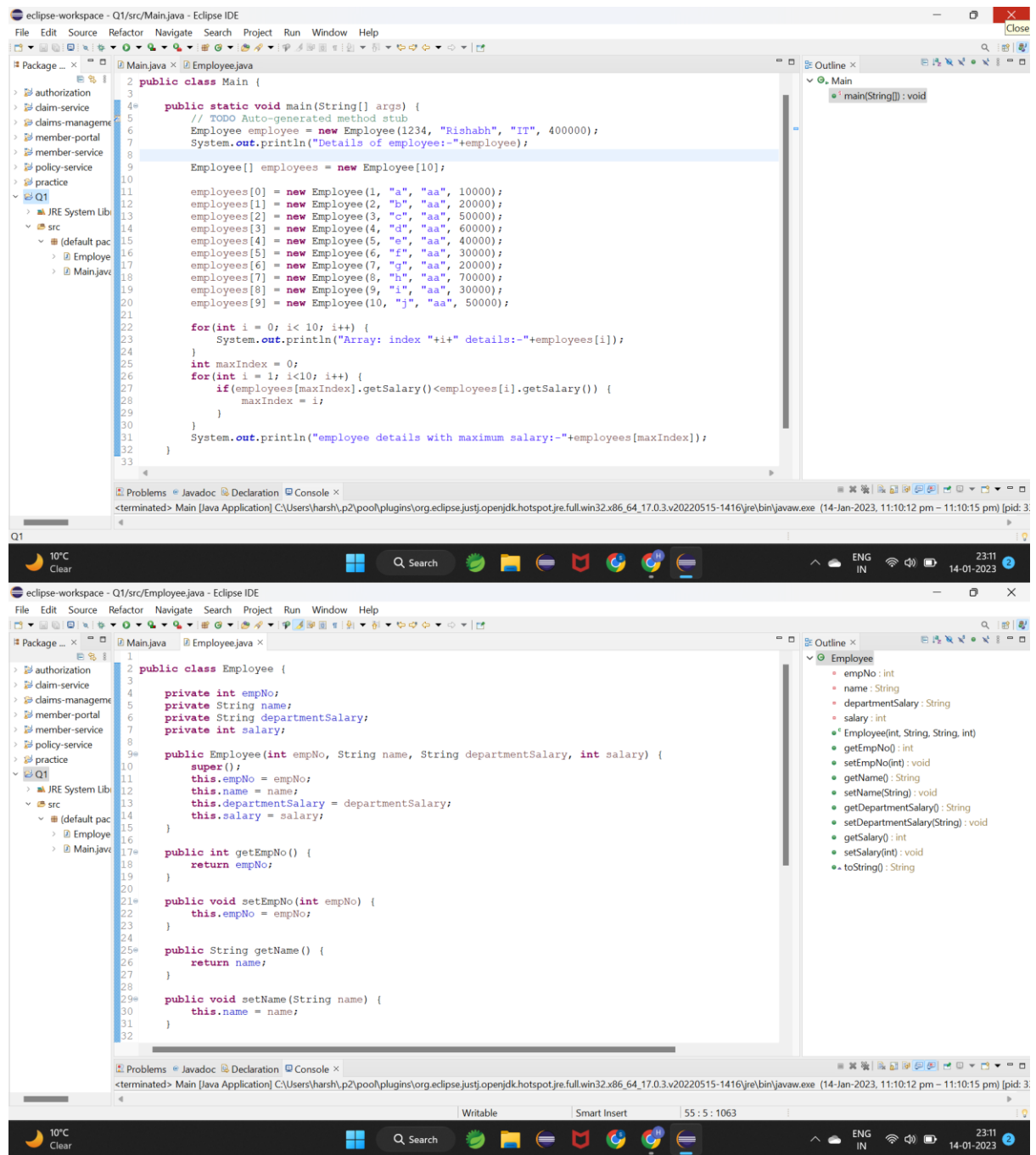


Q1



eclipse-workspace - Q1/src/Employee.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package ... x Main.java Employee.java x

```
24
25 public String getName() {
26     return name;
27 }
28
29 public void setName(String name) {
30     this.name = name;
31 }
32
33 public String getDepartmentSalary() {
34     return departmentSalary;
35 }
36
37 public void setDepartmentSalary(String departmentSalary) {
38     this.departmentSalary = departmentSalary;
39 }
40
41 public int getSalary() {
42     return salary;
43 }
44
45 public void setSalary(int salary) {
46     this.salary = salary;
47 }
48
49 @Override
50 public String toString() {
51     return "Employee [empNo=" + empNo + ", name=" + name + ", departmentSalary=" + departmentSalary
52         + ", salary=" + salary + "]";
53 }
54
55 }
```

Outline x

- Employee
 - empNo : int
 - name : String
 - departmentSalary : String
 - salary : int
 - Employee(int, String, String, int)
 - getEmpNo() : int
 - setEmpNo(int) : void
 - getName() : String
 - setName(String) : void
 - getDepartmentSalary() : String
 - setDepartmentSalary(String) : void
 - getSalary() : int
 - setSalary(int) : void
 - toString() : String

Problems x Javadoc Declaration Console x

<terminated> Main [Java Application] C:\Users\harsh\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.3.v20220515-1416\jre\bin\javaw.exe (14-Jan-2023, 11:10:12 pm - 11:10:15 pm) [pid: 3]

10°C Clear

Writable Smart Insert 55 : 5 : 1063

ENG IN 23:12 14-01-2023

eclipse-workspace - Q1/src/Employee.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package ... x Main.java Employee.java x

```
24
25 public String getName() {
26     return name;
27 }
```

Outline x

- Employee
 - empNo : int
 - name : String
 - departmentSalary : String

Problems x Javadoc Declaration Console x

<terminated> Main [Java Application] C:\Users\harsh\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.3.v20220515-1416\jre\bin\javaw.exe (14-Jan-2023, 11:10:12 pm - 11:10:15 pm) [pid: 3]

Details of employee:-Employee [empNo=1234, name=Rishabh, departmentSalary=IT, salary=400000]

Array: index 0 details:-Employee [empNo=1, name=a, departmentSalary=aa, salary=10000]

Array: index 1 details:-Employee [empNo=2, name=b, departmentSalary=aa, salary=20000]

Array: index 2 details:-Employee [empNo=3, name=c, departmentSalary=aa, salary=50000]

Array: index 3 details:-Employee [empNo=4, name=d, departmentSalary=aa, salary=60000]

Array: index 4 details:-Employee [empNo=5, name=e, departmentSalary=aa, salary=40000]

Array: index 5 details:-Employee [empNo=6, name=f, departmentSalary=aa, salary=30000]

Array: index 6 details:-Employee [empNo=7, name=g, departmentSalary=aa, salary=20000]

Array: index 7 details:-Employee [empNo=8, name=h, departmentSalary=aa, salary=70000]

Array: index 8 details:-Employee [empNo=9, name=i, departmentSalary=aa, salary=30000]

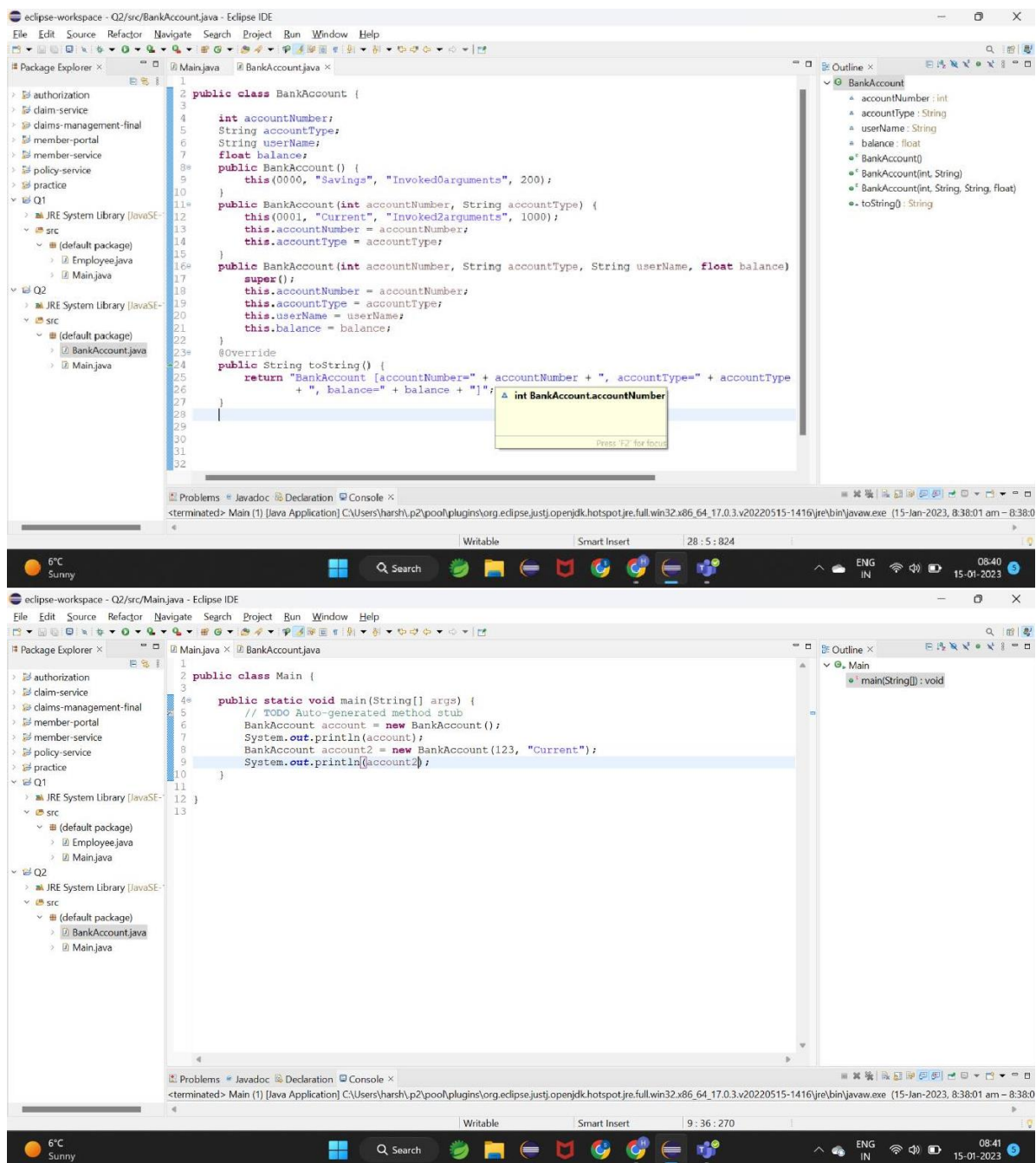
Array: index 9 details:-Employee [empNo=10, name=j, departmentSalary=aa, salary=50000]

employee details with maximum salary:-Employee [empNo=8, name=h, departmentSalary=aa, salary=70000]

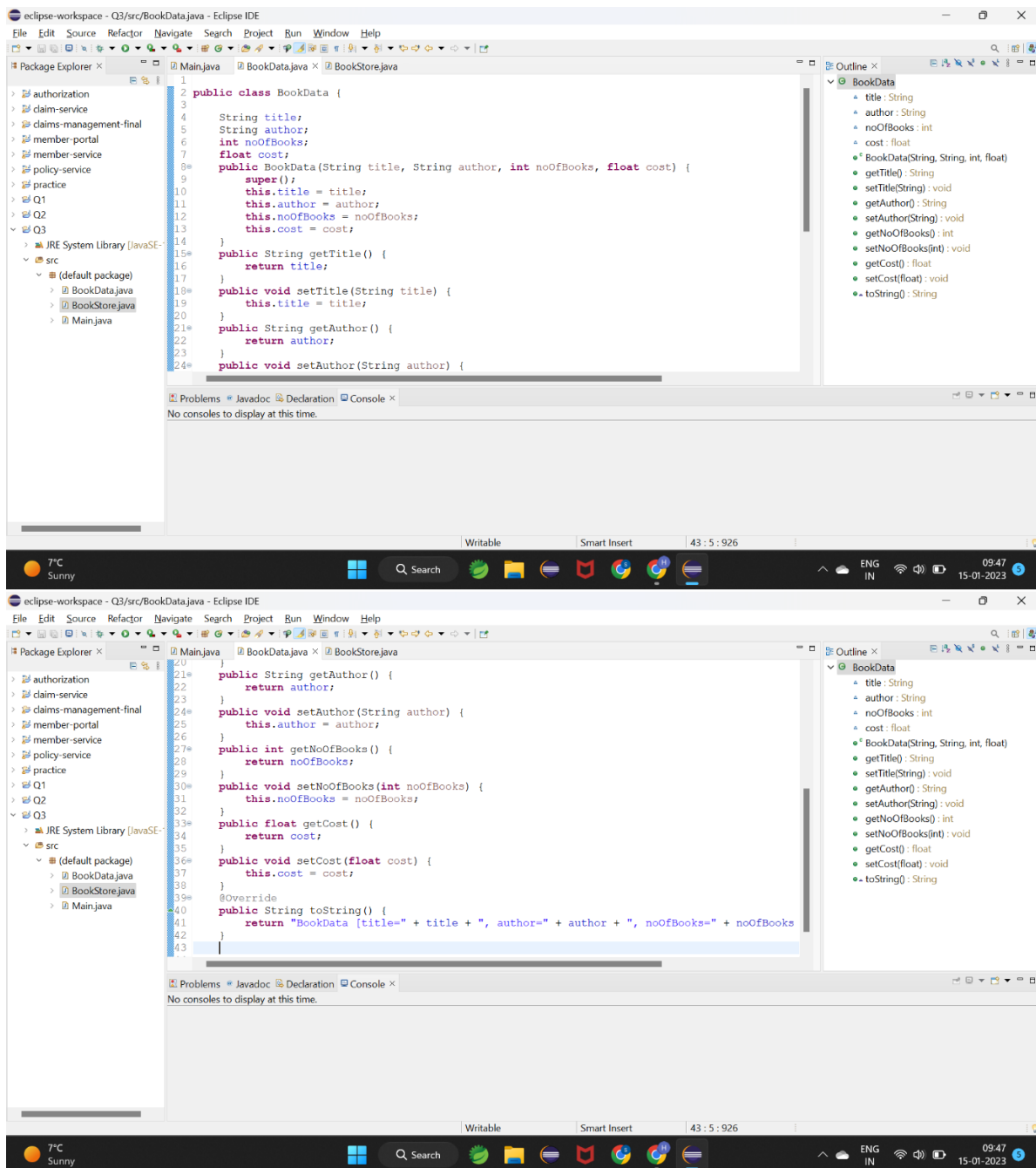
Writable Smart Insert 55 : 5 : 1063

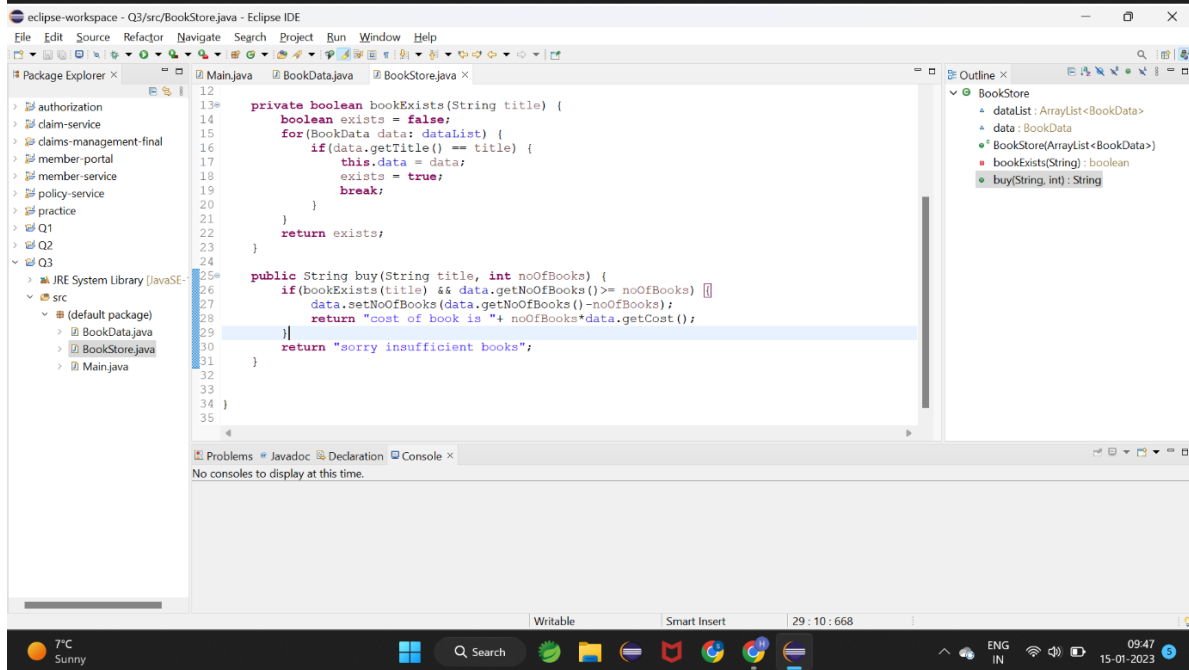
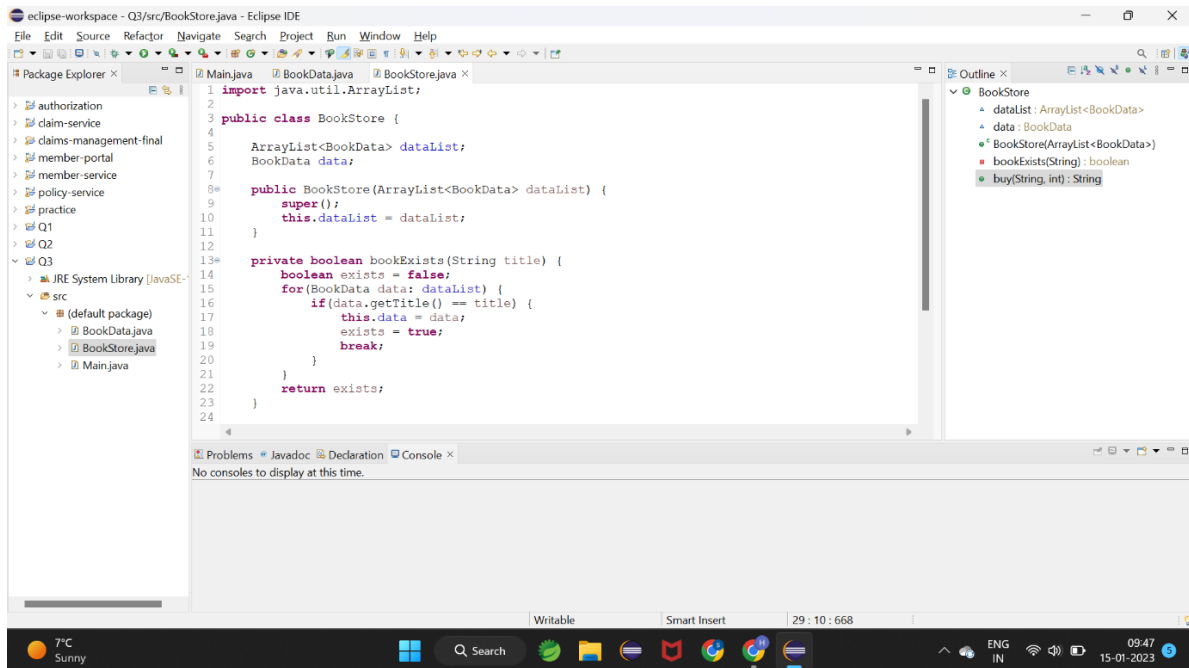
ENG IN 23:12 14-01-2023

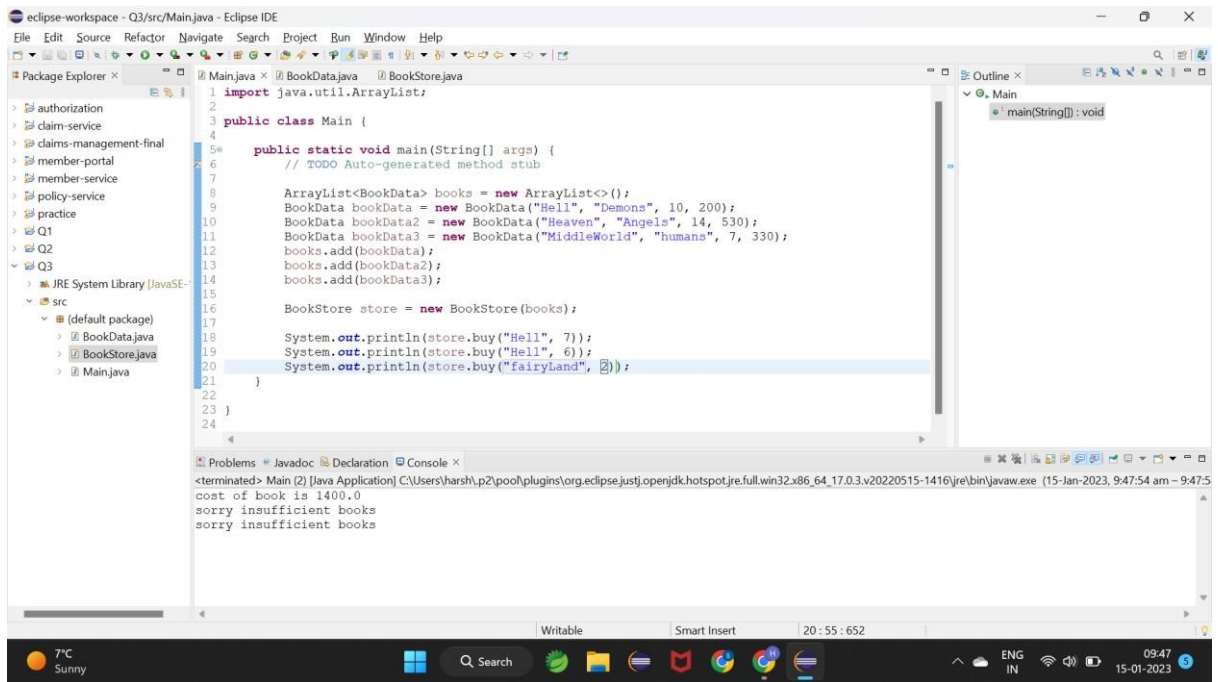
Q2



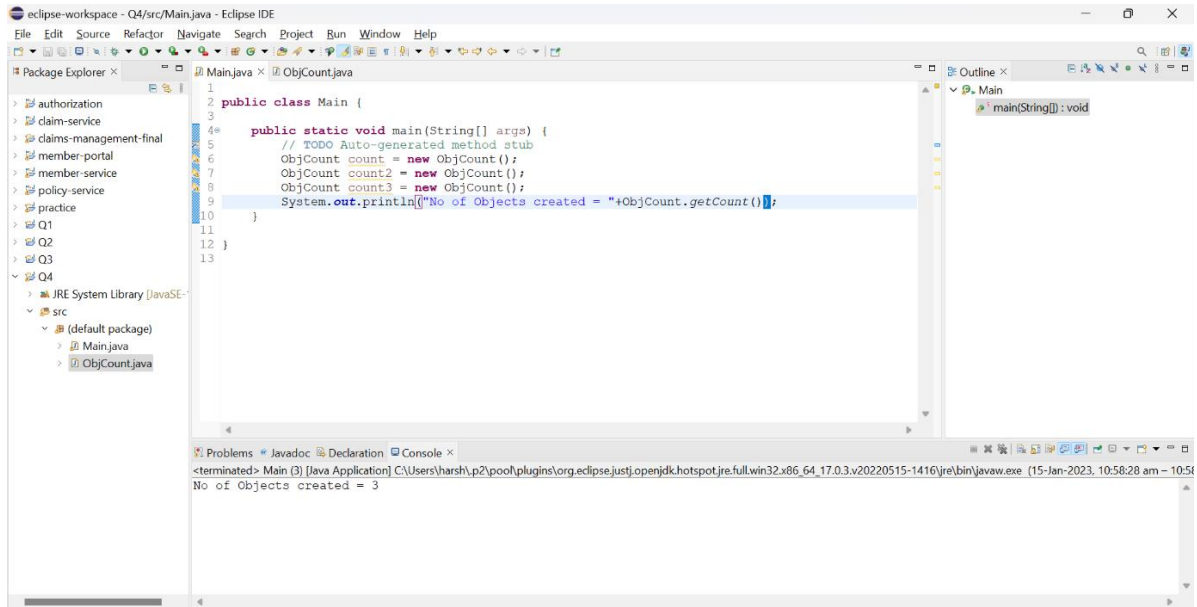
Q3







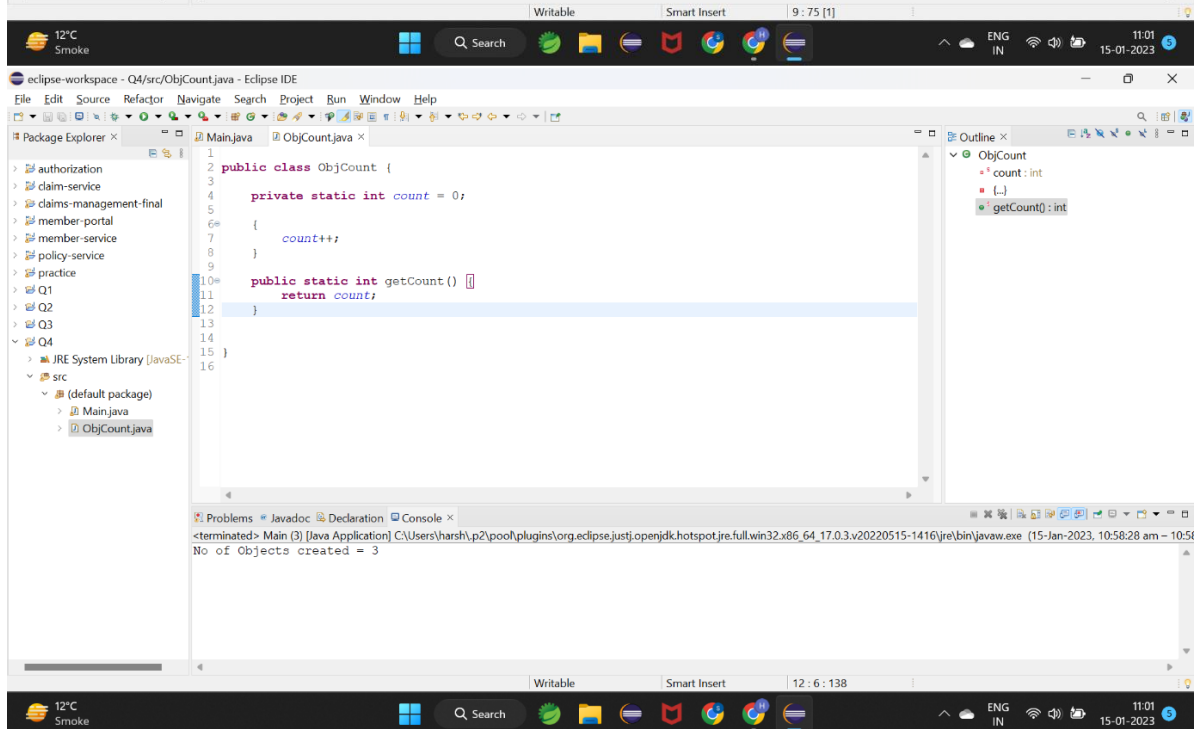
Q4



The screenshot shows the Eclipse IDE with the following code in `Main.java`:

```
1 public class Main {
2
3
4     // TODO Auto-generated method stub
5     public static void main(String[] args) {
6         ObjCount count = new ObjCount();
7         ObjCount count2 = new ObjCount();
8         ObjCount count3 = new ObjCount();
9         System.out.println("No of Objects created = "+ObjCount.getCount());
10    }
11
12 }
13
```

The Package Explorer on the left shows the project structure with `Q4` containing `Main.java` and `ObjCount.java`. The Outline view on the right shows the `main(String[]): void` method. The Console at the bottom shows the output: `No of Objects created = 3`.



The screenshot shows the Eclipse IDE with the following code in `ObjCount.java`:

```
1 public class ObjCount {
2
3     private static int count = 0;
4
5     {
6         count++;
7     }
8
9     public static int getCount() {
10        return count;
11    }
12
13 }
14
15
16
```

The Package Explorer on the left shows the project structure with `Q4` containing `Main.java` and `ObjCount.java`. The Outline view on the right shows the `ObjCount` class with `count: int` and `getCount(): int` method. The Console at the bottom shows the output: `No of Objects created = 3`.

Q5

The screenshot displays the Eclipse IDE workspace for a project named 'Q5'. The main editor shows the `Main.java` file, which contains the following code:

```

1
2 public class Main {
3
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6
7         Employee[] employees = new Employee[10];
8
9         employees[0] = new Employee("a", "aa", 10000);
10        employees[1] = new Employee("b", "aa", 20000);
11        employees[2] = new Employee("c", "aa", 50000);
12        employees[3] = new Employee("d", "aa", 60000);
13        employees[4] = new Employee("e", "aa", 40000);
14        employees[5] = new Employee("f", "aa", 30000);
15        employees[6] = new Employee("g", "aa", 20000);
16        employees[7] = new Employee("h", "aa", 70000);
17        employees[8] = new Employee("i", "aa", 30000);
18        employees[9] = new Employee("j", "aa", 50000);
19
20        for(int i = 0; i < 10; i++) {
21            System.out.println("Array: index "+i+" details:-"+employees[i]);
22        }
23    }
24
25 }
26
27 class Employee {
28     private static int count = 100;

```

The `Employee` class is defined in the same file, with the following attributes and methods:

```

29     private int empNo;
30     private String name;
31     private String departmentSalary;
32     private int salary;
33
34     {
35         count++;
36     }
37
38     public Employee( String name, String departmentSalary, int salary) {
39         super();
40         this.empNo = count;
41         this.name = name;
42         this.departmentSalary = departmentSalary;
43         this.salary = salary;
44     }
45
46     @Override
47     public String toString() {
48         return "Employee [empNo=" + empNo + ", name=" + name + ", departmentSalary=" + departmentSalary + ", salary=" + salary + "]";
49     }
50 }

```

The console output shows the details of the first four employees in the array:

```

Array: index 0 details:-Employee [empNo=101, name=a, departmentSalary=aa, salary=10000]
Array: index 1 details:-Employee [empNo=102, name=b, departmentSalary=aa, salary=20000]
Array: index 2 details:-Employee [empNo=103, name=c, departmentSalary=aa, salary=50000]
Array: index 3 details:-Employee [empNo=104, name=d, departmentSalary=aa, salary=60000]

```

The bottom status bar indicates the system temperature is 16°C and the weather is Hazy.

Q6

```

1 class TaxCalculator{
2     double basicSalary;
3     double tax;
4     int netSalary;
5
6     void calculateTax(double basicSalary){ //Method to Calculate and Print the Tax from the
7         this.basicSalary = basicSalary;
8         System.out.println("Basic Salary is : " + basicSalary);
9         tax = ((30*basicSalary)/100);
10        System.out.println("Tax is : " + tax);
11    }
12
13    void deductTax(){ //Method to deducting tax from the basic salary and printing the Net S
14        netSalary = (int)basicSalary - (int)tax;
15        System.out.println("Net Salary is : " + netSalary);
16    }
17
18    public class Main {
19        public static void main(String[] args) {
20            TaxCalculator cal = new TaxCalculator();
21            cal.calculateTax(74000);
22            cal.deductTax();
23        }
24    }
25
26

```

Console Output:

```

<terminated> Main (6) [Java Application] C:\Users\harsh\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.3.v20220515-1416\jre\bin\javaw.exe (15-Jan-2023, 3:10:12 pm - 3:10:12 pm)
Basic Salary is : 74000.0
Tax is : 22200.0
Net Salary is : 51800

```

Q7

```

1
2
3
4
5 class Account{
6     String customerName;
7     long accountNumber;
8     String typeOfAccount;
9     double balance;
10
11    void getData(String customerName, long accountNumber, String typeOfAccount, double balance) {
12        this.customerName = customerName;
13        this.accountNumber = accountNumber;
14        this.typeOfAccount = typeOfAccount;
15        this.balance = balance;
16    }
17
18    boolean deposit(double amount){ //Method to deposit Money
19        balance += amount;
20        return true;
21    }
22
23    boolean withdraw(double amount){ //Method to withdraw Money
24        balance -= amount;
25        return true;
26    }
27
28    void display(){ //Method to display the available balance
29        System.out.println(customerName + " Your " + "Updated Available Balance for A/C. " + a

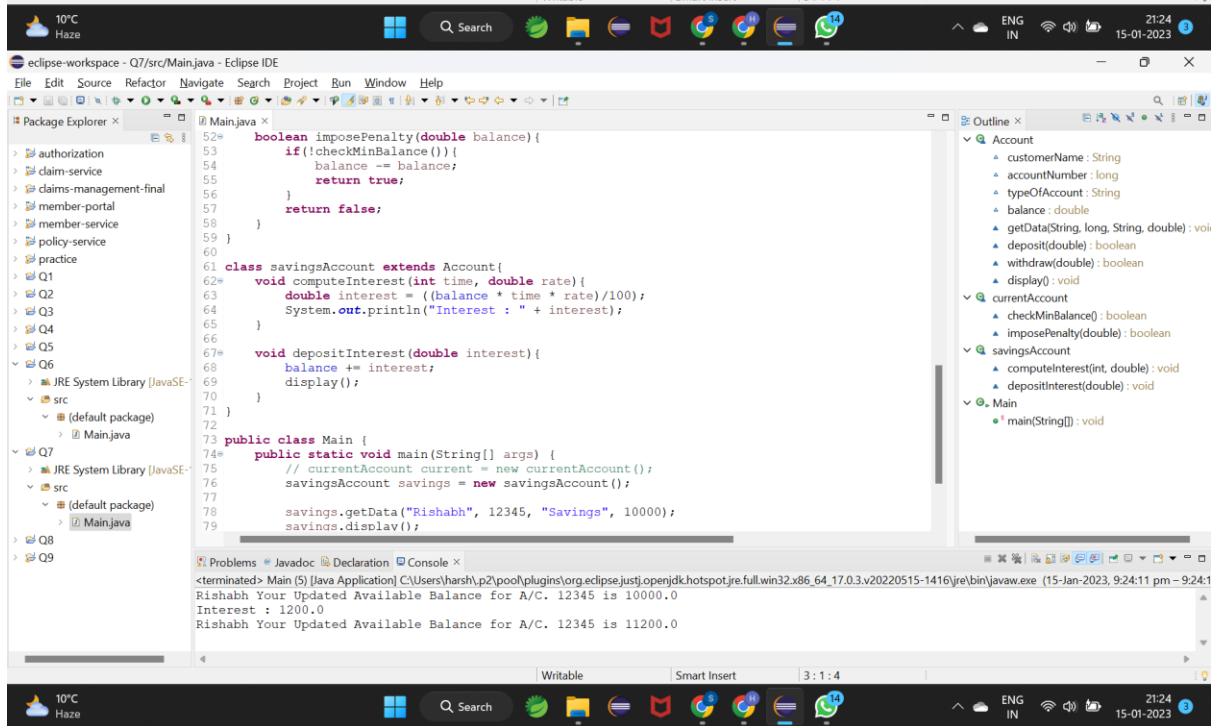
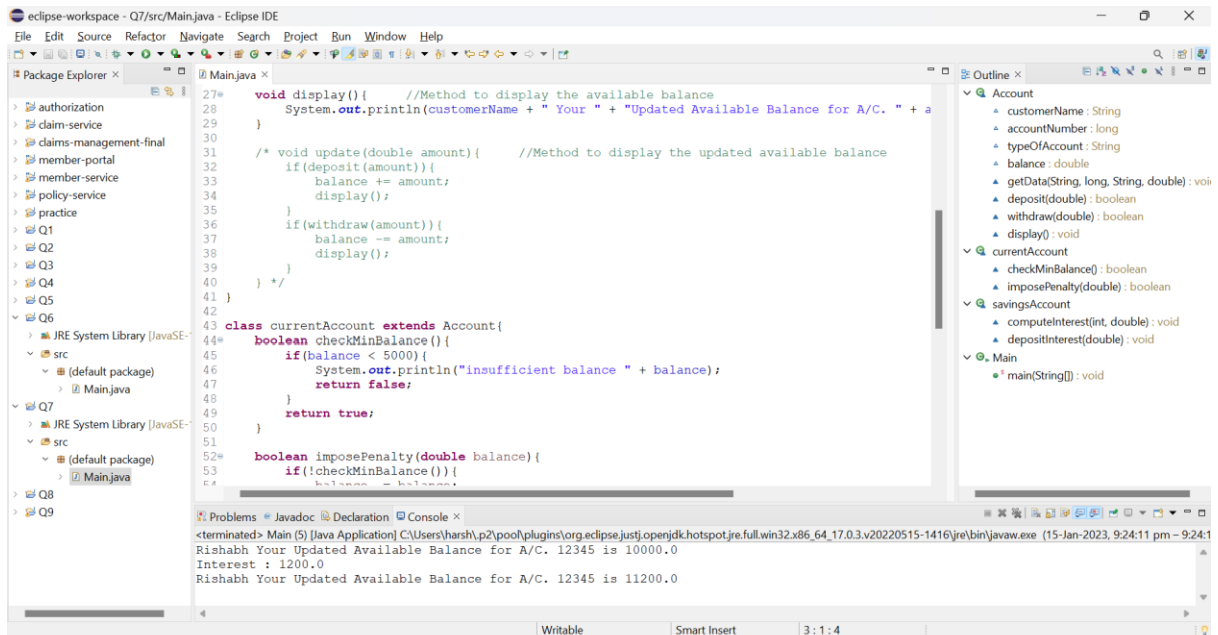
```

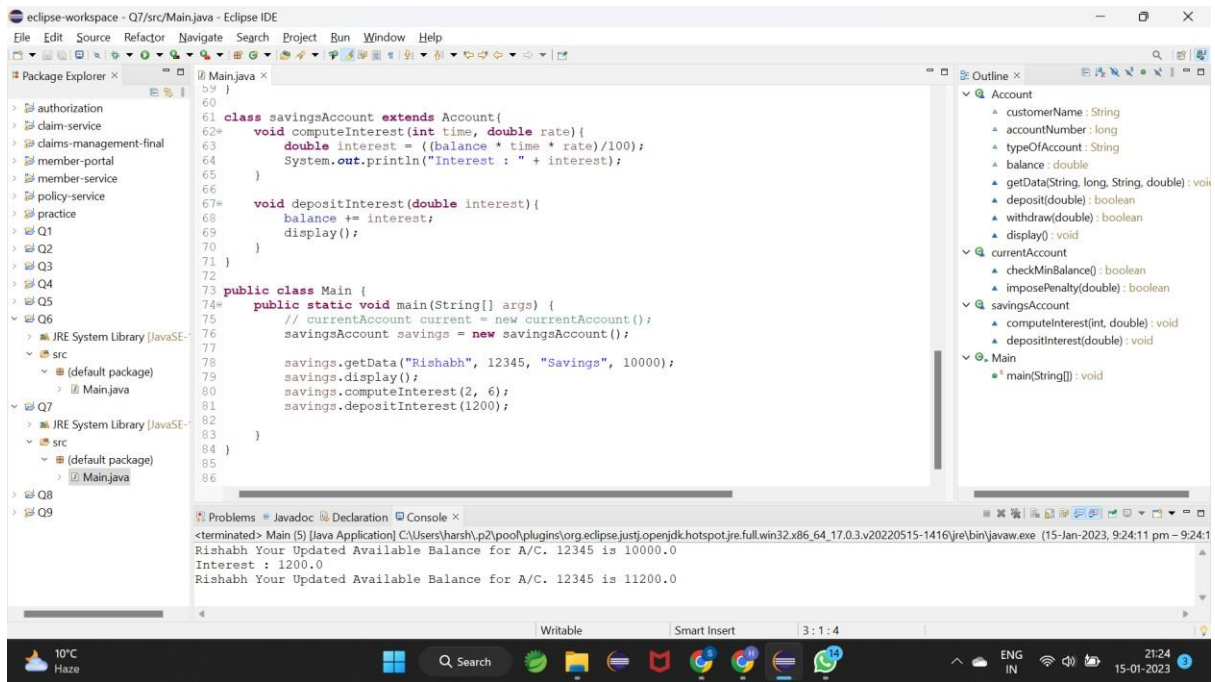
Console Output:

```

<terminated> Main (5) [Java Application] C:\Users\harsh\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.3.v20220515-1416\jre\bin\javaw.exe (15-Jan-2023, 9:24:11 pm - 9:24:11 pm)
Rishabh Your Updated Available Balance for A/C. 12345 is 10000.0
Interest : 1200.0
Rishabh Your Updated Available Balance for A/C. 12345 is 11200.0

```





Q8

