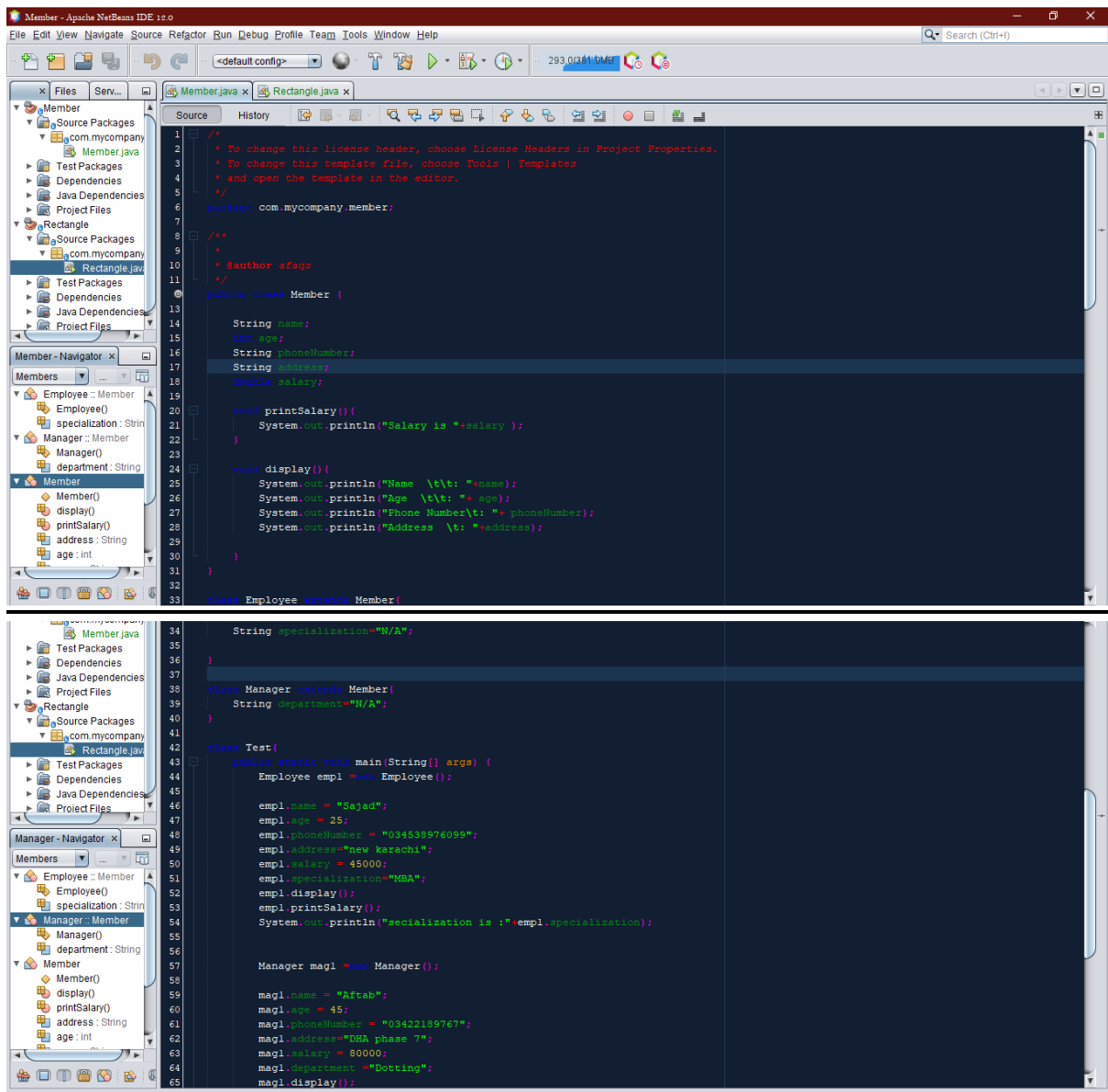
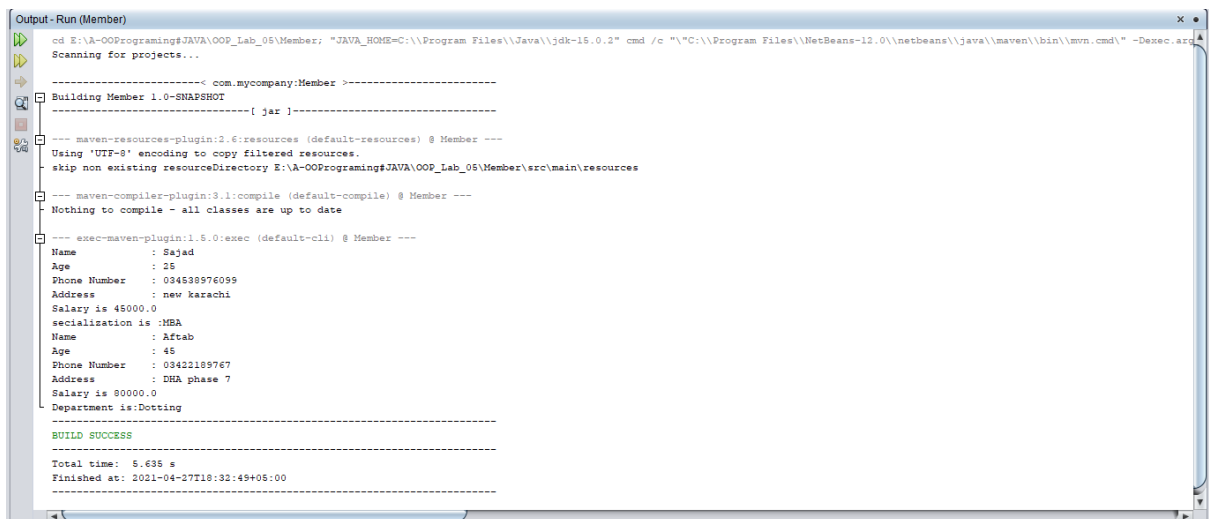


Question 1:

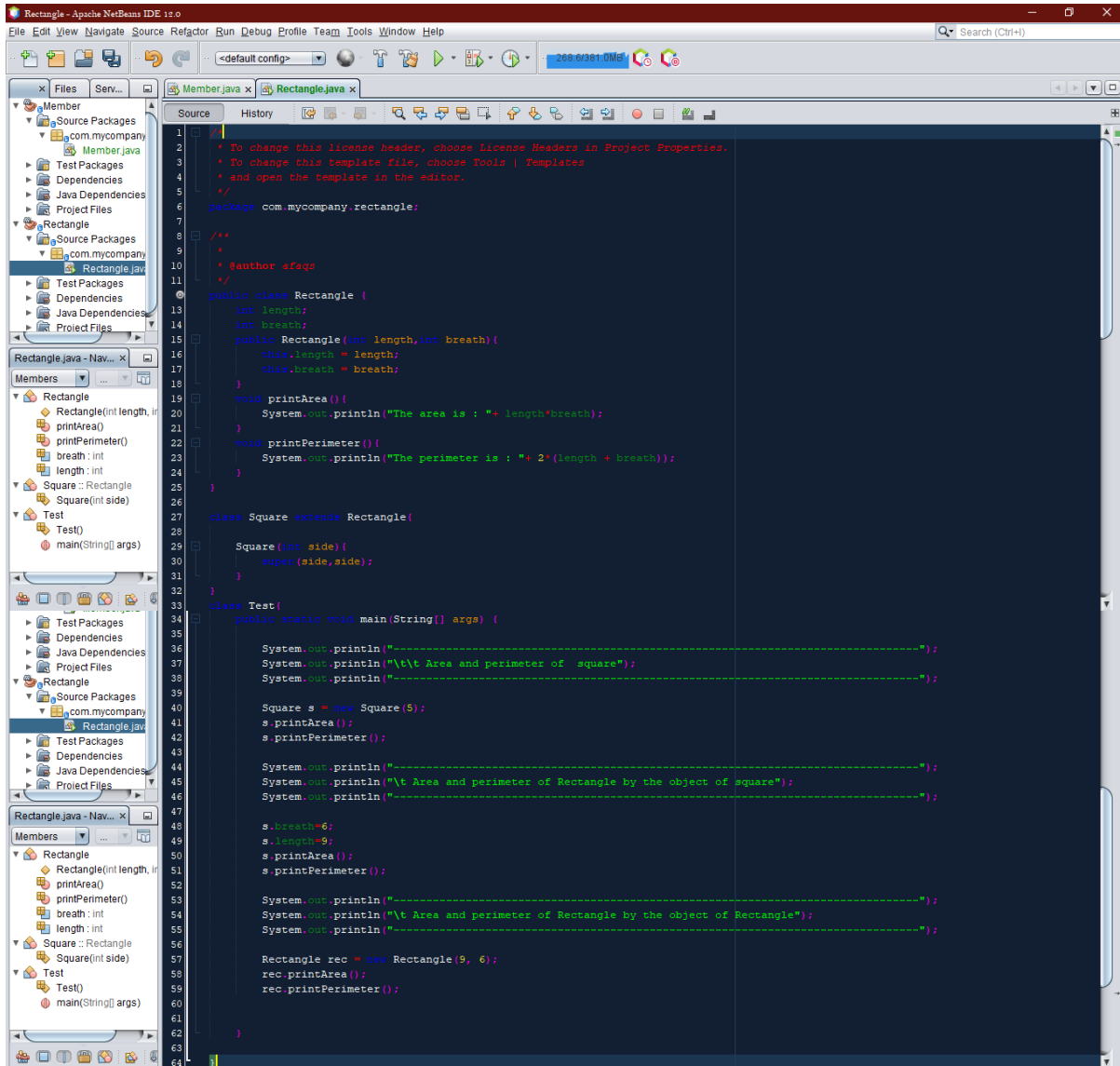


```
1  //
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package com.mycompany.member;
7
8  /**
9   *
10   * @author sfaqf
11   */
12
13  public class Member {
14
15      String name;
16      int age;
17      String phoneNumber;
18      String address;
19      double salary;
20
21      void printSalary(){
22          System.out.println("Salary is "+salary);
23      }
24
25      void display(){
26          System.out.println("Name \t\t: "+name);
27          System.out.println("Age \t\t: "+age);
28          System.out.println("Phone Number\t: "+phoneNumber);
29          System.out.println("Address \t: "+address);
30      }
31  }
32
33  class Employee extends Member{
34
35      String specialization="N/A";
36  }
37
38  class Manager extends Member{
39      String department="N/A";
40  }
41
42  class Test{
43
44      public static void main(String[] args) {
45          Employee empl =new Employee();
46
47          empl.name = "Sajad";
48          empl.age = 25;
49          empl.phoneNumber = "034538976099";
50          empl.address="new karachi";
51          empl.salary = 45000;
52          empl.specialization="MBA";
53          empl.display();
54          empl.printSalary();
55          System.out.println("specialization is :"+empl.specialization);
56
57          Manager mag1 =new Manager();
58
59          mag1.name = "Aftab";
60          mag1.age = 45;
61          mag1.phoneNumber = "03422189767";
62          mag1.address="DHA phase 7";
63          mag1.salary = 80000;
64          mag1.department = "Dotting";
65          mag1.display();
66      }
67  }
```

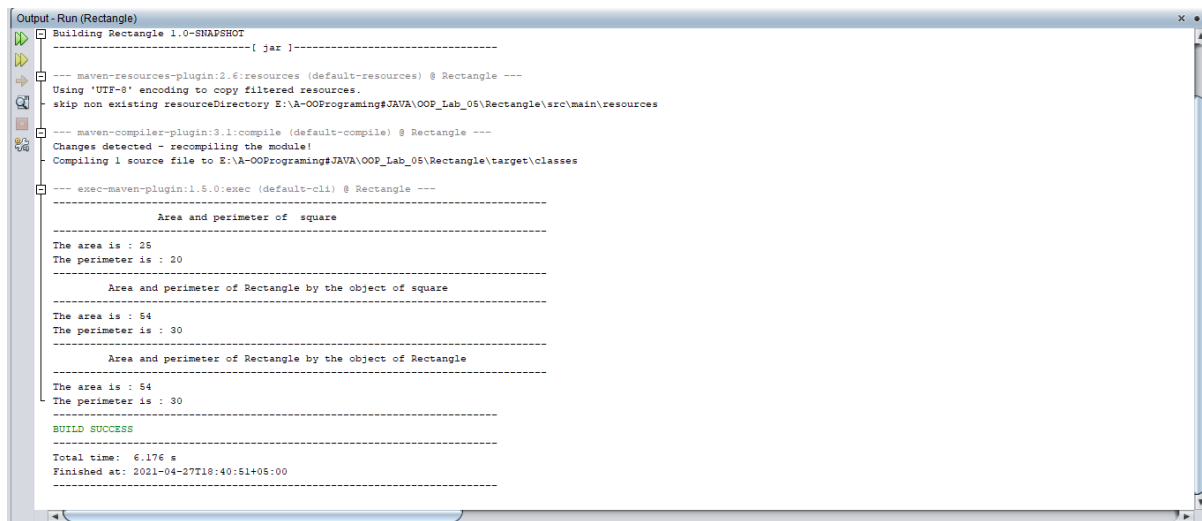


```
Output - Run (Member)
cd E:\A-OOProgramming\JAVA\OOP_Lab_05\Member; "JAVA_HOME=C:\Program Files\Java\jdk-15.0.2" cmd /c "%C:\Program Files\NetBeans-12.0\bin\mvn.cmd" -Dexec.args=
Scanning for projects...
[INFO] Building Member 1.0-SNAPSHOT
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ Member ---
Using 'UTF-8' encoding to copy filtered resources.
skip non existing resourceDirectory E:\A-OOProgramming\JAVA\OOP_Lab_05\Member\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ Member ---
Nothing to compile - all classes are up to date
[INFO]
[INFO] --- exec-maven-plugin:1.5.0:exec (default-cli) @ Member ---
Name      : Sajad
Age       : 25
Phone Number : 034538976099
Address   : new karachi
Salary is : 45000.0
specialization is :MBA
Name      : Aftab
Age       : 45
Phone Number : 03422189767
Address   : DHA phase 7
Salary is : 80000.0
Department is:Dotting
BUILD SUCCESS
Total time: 5.635 s
Finished at: 2021-04-27T18:32:49+05:00
```

Question 2:



```
1  // To change this license header, choose License Headers in Project Properties.
2  // To change this template file, choose Tools | Templates
3  // and open the template in the editor.
4
5  /**
6   *
7   */
8  package com.mycompany.rectangle;
9
10 /**
11  *
12  */
13 public class Rectangle {
14     int length;
15     int breath;
16     public Rectangle(int length,int breath){
17         this.length = length;
18         this.breath = breath;
19     }
20     void printArea(){
21         System.out.println("The area is : "+ length*breath);
22     }
23     void printPerimeter(){
24         System.out.println("The perimeter is : "+ 2*(length + breath));
25     }
26 }
27
28 class Square extends Rectangle{
29
30     Square(int side){
31         super(side,side);
32     }
33 }
34
35 class Test{
36     public static void main(String[] args) {
37
38         System.out.println("-----");
39         System.out.println("\t\t Area and perimeter of  square");
40         System.out.println("-----");
41
42         Square s = new Square(5);
43         s.printArea();
44         s.printPerimeter();
45
46         System.out.println("-----");
47         System.out.println("\t Area and perimeter of Rectangle by the object of square");
48         System.out.println("-----");
49
50         s.breath=6;
51         s.length=9;
52         s.printArea();
53         s.printPerimeter();
54
55         System.out.println("-----");
56         System.out.println("\t Area and perimeter of Rectangle by the object of Rectangle");
57         System.out.println("-----");
58
59         Rectangle rec = new Rectangle(9, 6);
60         rec.printArea();
61         rec.printPerimeter();
62
63     }
64 }
```



```
Output - Run (Rectangle)
Building Rectangle 1.0-SNAPSHOT
[ jar ]-----
--- maven-resources-plugin:2.6:resources (default-resources) @ Rectangle ---
Using 'UTF-8' encoding to copy filtered resources.
skip non existing resourceDirectory E:\A-OOPrograming\JAVA\OOP_Lab_05\Rectangle\src\main\resources
--- maven-compiler-plugin:3.1:compile (default-compile) @ Rectangle ---
Changes detected - recompiling the module!
Compiling 1 source file to E:\A-OOPrograming\JAVA\OOP_Lab_05\Rectangle\target\classes
--- exec-maven-plugin:1.5.0:exec (default-cli) @ Rectangle ---
-----
Area and perimeter of square
-----
The area is : 25
The perimeter is : 20
-----
Area and perimeter of Rectangle by the object of square
-----
The area is : 54
The perimeter is : 30
-----
Area and perimeter of Rectangle by the object of Rectangle
-----
The area is : 54
The perimeter is : 30
-----
BUILD SUCCESS
-----
Total time: 6.176 s
Finished at: 2021-04-27T18:40:51+05:00
-----
```