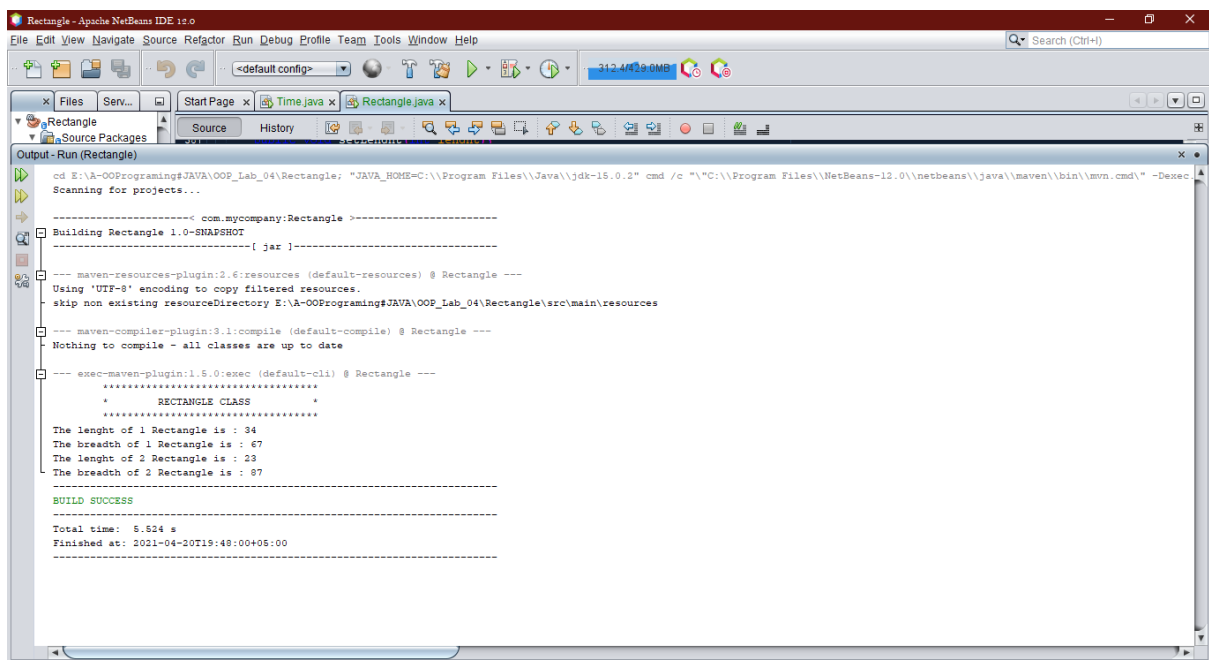


Question 1:

```
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.rectangle;
7
8  /**
9   *
10   * @author sfags
11   */
12  public class Rectangle {
13      private int length; //private access modifier
14      private int breadth;
15      static int value =0; //static variable
16      //non-parameterized constructor
17      public Rectangle() {
18          length =0;
19          breadth =0;
20      }
21      //parameterized constructor
22      public Rectangle(int length, int breadth) {
23          this.length = length; // using this pointer
24          this.breadth = breadth;
25      }
26
27      //accessor or getter which get the length
28      public int getLength() {
29          return length;
30      }
31
32      //accessor or getter which get the breadth
33      public int getBreadth() {
34          return breadth;
35      }
36
37      //mutators or setter which set's the value of length
38      public void setLength(int length) {
39          this.length = length;
40      }
41
42      //mutators or setter which set's the value of breadth
43      public void setBreadth(int breadth) {
44          this.breadth = breadth;
45      }
46
47      //static function or method
48      static void Heading() {
49          System.out.println("*****");
50          System.out.println("\t\t\t RECTANGLE CLASS \t\t");
51          System.out.println("*****");
52      }
53
54      //for showing the length and breadth of Rectangle
55      public void display() {
56          System.out.printf("The length of %d Rectangle is : %d\n", ++value, length);
57          System.out.printf("The breadth of %d Rectangle is : %d\n", value, breadth);
58      }
59
60      public static void main(String[] args) {
61          Heading();
62          Rectangle rect1 = new Rectangle();
63          Rectangle rect2 = new Rectangle(23, 87);
64      }
65  }
```

Output:



The screenshot shows the Apache NetBeans IDE interface. The main window displays the 'Output - Run (Rectangle)' console. The output text is as follows:

```
cd E:\A-00Programming\JAVA\OOP_Lab_04\Rectangle: "JAVA_HOME=C:\Program Files\Java\jdk-15.0.2" cmd /c "%C:\Program Files\NetBeans-12.0\netbeans\java\maven\bin\mvn.cmd" -Dexec
Scanning for projects...

-----< com.mycompany: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-00Programming\JAVA\OOP_Lab_04\Rectangle\src\main\resources

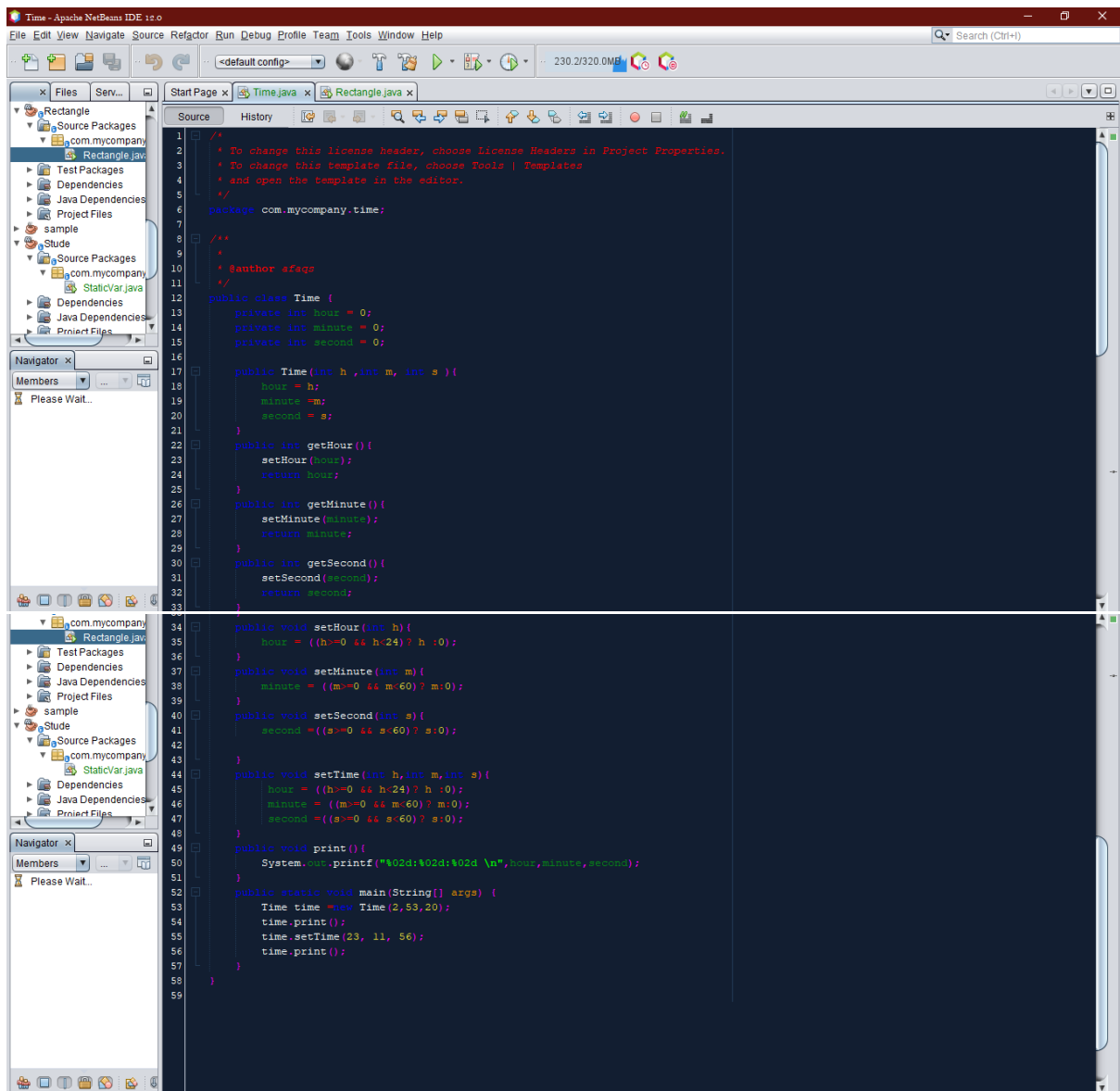
--- maven-compiler-plugin:3.1:compile (default-compile) @ Rectangle ---
Nothing to compile - all classes are up to date

--- exec-maven-plugin:1.5.0:exec (default-cli) @ Rectangle ---
*****
*      RECTANGLE CLASS      *
*****
The lenght of 1 Rectangle is : 34
The breadth of 1 Rectangle is : 67
The lenght of 2 Rectangle is : 23
The breadth of 2 Rectangle is : 87

BUILD SUCCESS

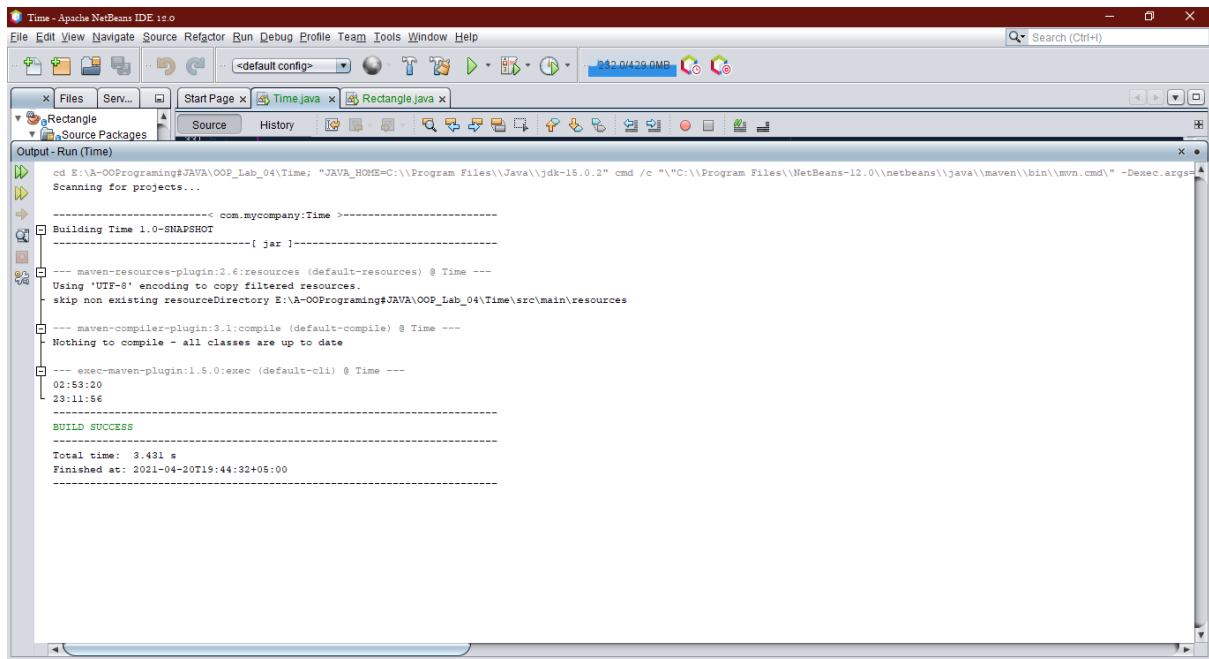
Total time:  5.524 s
Finished at: 2021-04-20T19:48:00+05:00
-----
```

Question 2:



```
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.time;  
7  
8  /**  
9  *  
10  * @author #fags  
11  */  
12  public class Time {  
13      private int hour = 0;  
14      private int minute = 0;  
15      private int second = 0;  
16  
17      public Time(int h, int m, int s) {  
18          hour = h;  
19          minute = m;  
20          second = s;  
21      }  
22      public int getHour() {  
23          return hour;  
24      }  
25      public int getMinute() {  
26          return minute;  
27      }  
28      public int getSecond() {  
29          return second;  
30      }  
31      public void setHour(int h) {  
32          hour = ((h >= 0 && h < 24) ? h : 0);  
33      }  
34      public void setMinute(int m) {  
35          minute = ((m >= 0 && m < 60) ? m : 0);  
36      }  
37      public void setSecond(int s) {  
38          second = ((s >= 0 && s < 60) ? s : 0);  
39      }  
40      public void setTime(int h, int m, int s) {  
41          hour = ((h >= 0 && h < 24) ? h : 0);  
42          minute = ((m >= 0 && m < 60) ? m : 0);  
43          second = ((s >= 0 && s < 60) ? s : 0);  
44      }  
45      public void print() {  
46          System.out.printf("%02d:%02d:%02d \n", hour, minute, second);  
47      }  
48      public static void main(String[] args) {  
49          Time time = new Time(2, 53, 20);  
50          time.print();  
51          time.setTime(23, 11, 56);  
52          time.print();  
53      }  
54  }
```

Output:



The screenshot shows the Apache NetBeans IDE 12.0 interface. The 'Output - Run (Time)' window is open, displaying the output of a Maven build. The output text is as follows:

```
cd E:\A-OOPProgramming\JAVA\OOP_Lab_04\Time: "JAVA_HOME=C:\Program Files\Java\jdk-15.0.2" cmd /c "%C:\Program Files\NetBeans-12.0\netbeans\java\maven\bin\mn.cmd%" -Dexec.args=
Scanning for projects...

-----< com.mycompany:Time >-----
Building Time 1.0-SNAPSHOT
-----[ jar ]-----

--- maven-resources-plugin:2.6:resources (default-resources) @ Time ---
Using "UTF-8" encoding to copy filtered resources.
skip non existing resourceDirectory E:\A-OOPProgramming\JAVA\OOP_Lab_04\Time\src\main\resources

--- maven-compiler-plugin:3.1:compile (default-compile) @ Time ---
Nothing to compile - all classes are up to date

--- exec-maven-plugin:1.5.0:exec (default-cli) @ Time ---
02:53:20
23:11:56

BUILD SUCCESS

Total time: 3.431 s
Finished at: 2021-04-20T19:44:32+05:00
```