

Activity

Index No: 23CDS0843

1. Declare variable to store the following.

- Student name
- GPA
- Registration number

print all values



The screenshot shows an IDE with a file named `StudentInfo.java` open. The code defines a `public class StudentInfo` with a `main` method. Inside the `main` method, three variables are declared and assigned: `String studentName = "Yehan";`, `double gpa = 3.8;`, and `String registrationNumber = "23CDS0843";`. These variables are then printed to the console using `System.out.println`. Below the code editor, the terminal output shows the execution of `java StudentInfo`, resulting in the printed values: `Student Name: Yehan`, `GPA: 3.8`, and `Registration Number: 23CDS0843`.

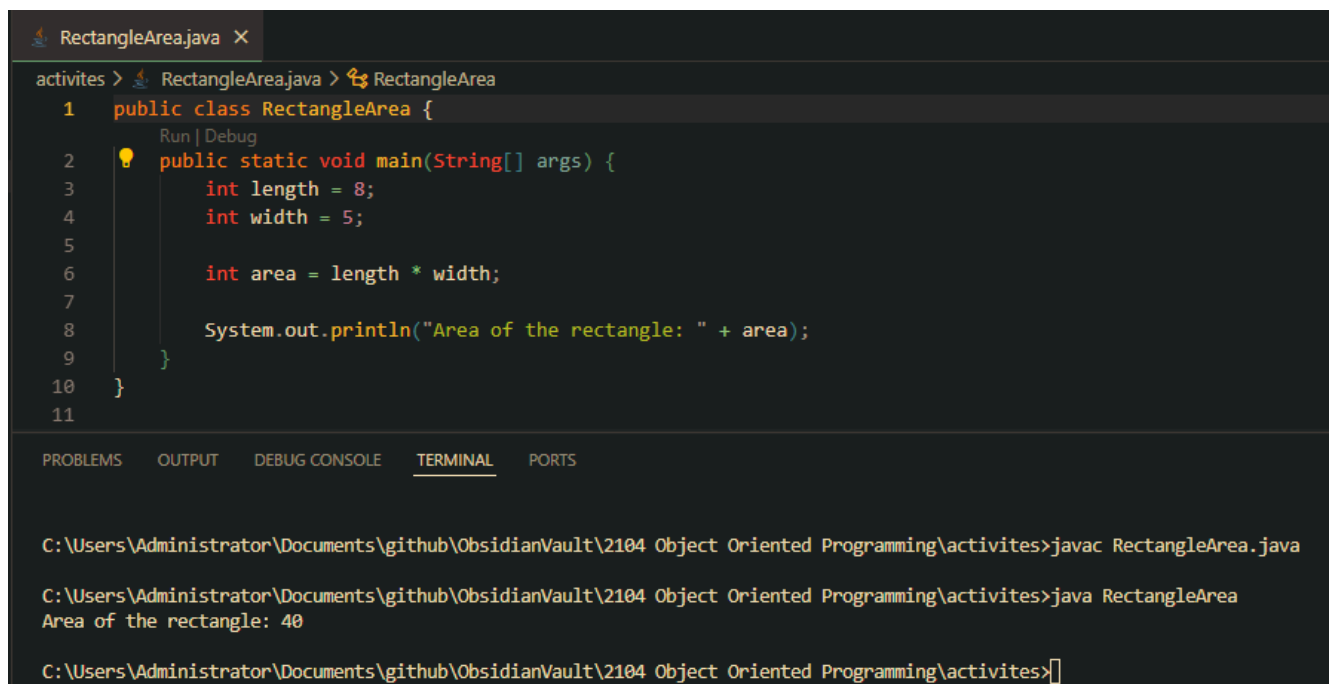
```

1  public class StudentInfo {
2      public static void main(String[] args) {
3          String studentName = "Yehan";
4          double gpa = 3.8;
5          String registrationNumber = "23CDS0843";
6
7          System.out.println("Student Name: " + studentName);
8          System.out.println("GPA: " + gpa);
9          System.out.println("Registration Number: " + registrationNumber);
10     }
11 }
12
C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java StudentInfo
Student Name: Yehan
GPA: 3.8
Registration Number: 23CDS0843

```

2. Write a Java program to calculate the area of a rectangle using

- length = 8
- width = 5



The screenshot shows an IDE with a file named `RectangleArea.java` open. The code defines a `public class RectangleArea` with a `main` method. Inside the `main` method, two variables are declared and assigned: `int length = 8;` and `int width = 5;`. These are used to calculate the area with `int area = length * width;`, which is then printed to the console using `System.out.println`. Below the code editor, the terminal output shows the execution of `javac RectangleArea.java` followed by `java RectangleArea`, resulting in the printed value: `Area of the rectangle: 40`.

```

1  public class RectangleArea {
2      public static void main(String[] args) {
3          int length = 8;
4          int width = 5;
5
6          int area = length * width;
7
8          System.out.println("Area of the rectangle: " + area);
9      }
10 }
11
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>javac RectangleArea.java
C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java RectangleArea
Area of the rectangle: 40
C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>

```

3. Given the following code, write final value of x.

```
int x = 5;
x += 3;
x *= 2;
x -= 4;
```

FINAL OUTPUT: 12 (x is now 12)

4. Write a Java program to check whether two numbers are equal and print the result.

```
activites > EqualNumbers.java > EqualNumbers > main(String[])
1 public class EqualNumbers {
    Run | Debug
2     public static void main(String[] args) {
3         int num1 = 100;
4         int num2 = 100;
5
6         if (num1 == num2) {
7             System.out.println(x: "The numbers are equal.");
8         } else {
9             System.out.println(x: "The numbers are not equal.");
10        }
11    }
12 }
13
```

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```
C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java EqualNumbers.java
The numbers are equal.

C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>
```

5. Write a Java program to check whether a number is between 10 and 20.

```
activites > NumberRange.java > NumberRange > main(String[])
1 public class NumberRange {
    Run | Debug
2     public static void main(String[] args) {
3         int number = 15;
4
5         if (number >= 10 && number <= 20) {
6             System.out.println(x: "The number is between 10 and 20.");
7         } else {
8             System.out.println(x: "The number is not between 10 and 20.");
9         }
10    }
11 }
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java NumberRange.java
The number is between 10 and 20.
```

6. Write a Java program to check whether a student has passed or failed.

- Pass mark = 50



```

activites > PassFail.java > PassFail > main(String[])
1  public class PassFail {
2      public static void main(String[] args) {
3          int marks = 65;
4
5          if (marks >= 50) {
6              System.out.println(x: "Student has passed.");
7          } else {
8              System.out.println(x: "Student has failed.");
9          }
10     }
11 }
12

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java PassFail.java
Student has passed.

```

7. What will be the output of the following code?

```

boolean isRaining = false;
System.out.println(!isRaining);

```

OUTPUT: true

8. A user can access a system if:

- The user is logged in
- AND the account is active

write a Java program to check this condition



```

activites > SystemLogin.java > SystemLogin
1  public class SystemLogin {
2      public static void main(String[] args) {
3          boolean isLoggedIn = true;
4          boolean isAccountActive = true;
5
6          if (isLoggedIn && isAccountActive) {
7              System.out.println(x: "Access granted.");
8          } else {
9              System.out.println(x: "Access denied.");
10         }
11     }
12 }
13

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

C:\Users\Administrator\Documents\github\ObsidianVault\2104 Object Oriented Programming\activites>java SystemLogin.java
Access granted.

```