Lab4-Assignment

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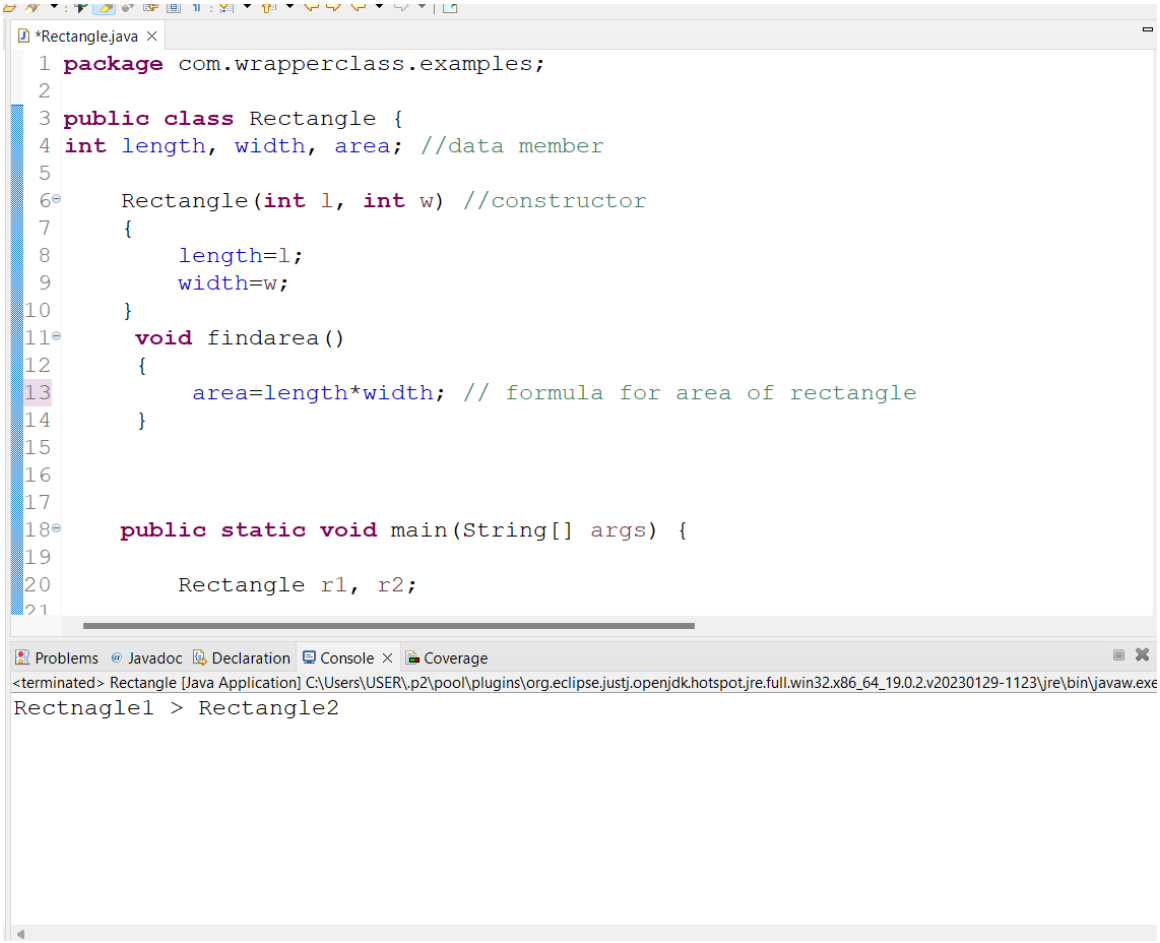
1)Write a Java program that uses a method to calculate the area of a rectangle and compare them using Relational Operator Steps:

● Create a class Rectangle. ● The Rectangle class should have two attributes length and width of type int. ● Create a constructor that accepts length and width as parameters. ● Area should be calculated as length*area. ● Instantiate two Rectangle classes with random values. ● Compare the areas of the two rectangles using the Relational Operator. ● If the first one is bigger than the second one, print “Rectangle1 > Rectangle2”. ● If the first one is smaller print “Rectangle1 < Rectangle2”. ● Otherwise print “They are equal”.

```
package com.wrapperclass.examples;

public class Rectangle {
int length, width, area; //data member

     Rectangle(int l, int w) //constructor
     {
          length=l;
          width=w;
     }
      void findarea()
      {
           area=length*width; // formula for area of
rectangle
      }



     public static void main(String[] args) {

          Rectangle r1, r2;

          r1= new Rectangle(3,5);
          r2= new Rectangle(4,3);

          r1.findarea();
```

```
        r2.findarea();

        String message;

        message = (r1.area>r2.area) ? "Rectnagle1 >
Rectangle2": (r1.area<r2.area) ? "Rectnagle1 <
Rectangle2" : "They are equal";
        System.out.println(message);


    }

}
```

Output:



2) Write a Java program that allows the user to create a bank account and perform transactions such as deposit, withdrawal, and balance inquiry. Using a conditional operator (ternary operator), display the message whether minimum balance is maintained or not. Steps:

● Create a class BankAccount ● Add three member variables: String accountHolderName , int accountNumber and int balance; ● Add a constructors using all three members ● Add getters and setters. ● Add method deposit (int), withdraw(int) ● Implement the methods by increasing or decreasing the balance ● In the main method create a bank account ● Withdraw money from this account and/or deposit into this account ● Get the balance ● Create a string variable "status" inside the main method ● Assign values to status as "Minimum Balance Maintained" if balance is above or equal to 5000. Otherwise values of status will be "Minimum Balance not Maintained". Use conditional operator (ternary operator) to assign the values of the status. ● Display the status

```
package com.wrapperclass.examples;

public class BankAccount {
	String accountHolderName;
	int accountNumber;
	int balance;

	//constructor
	public BankAccount(String accountHolderName, int
accountNumber, int balance) {
		super();
		this.accountHolderName = accountHolderName;
		this.accountNumber = accountNumber;
		this.balance = balance;
	}

	//getter and setter method
	public String getAccountHolderName() {
		return accountHolderName;
	}
	public void setAccountHolderName(String
accountHolderName) {
		this.accountHolderName = accountHolderName;
	}
	public int getAccountNumber() {
```

```
        return accountNumber;
    }
    public void setAccountNumber(int accountNumber) {
        this.accountNumber = accountNumber;
    }
    public int getBalance() {
        return balance;
    }
    public void setBalance(int balance) {
        this.balance = balance;
    }

    //methods

    public String deposit(int deposit)
    {
        balance=balance+deposit;

        return (balance>=5000 ? "Minimum balance is
maintained" : "Minimum balance is not mainitained");

    }


    public String withdraw(int withdraw)
    {
        if(withdraw<=balance)
        balance=balance-withdraw;
        else
        System.out.println("low balnce!!!");

        return (balance>=5000 ? "Minimum balance is
maintained" : "Minimum balance is not mainitained");

    }


    public static void main(String[] args)
    {
```

```
        BankAccount bank = new
BankAccount("Bhagyalaxmi",456321, 100000);
        System.out.println("a/c no "+
bank.getAccountNumber());
        System.out.println("a/c holder name  "+
bank.getAccountHolderName());
        System.out.println("a/c balace "+
bank.balance);

        String msg= bank.deposit(1000);
        System.out.println(msg);
        System.out.println("Balance after depost " +
bank.getBalance());
        msg=bank.withdraw(7000);
        System.out.println(msg);
        System.out.println("Balance after withdraw " +
bank.getBalance());



    }


}
```

Output: