Assignment-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”.

```
// creating a class with name as Rectangle;
class Rectangle {
    // class member variables;
   int length;
   int width;

  // creating a construtor Rectangle;
 public Rectangle(int length, int width) {
      this.length = length;
      this.width = width;
   }

  // creating a method to calculate area of rectangle;
 public int calculateArea() {
      return length * width;
   }
}

// creating a main class with Main;
public class Main {
   public static void main(String[] args) {
      // creating two objects for class Rectangle with parameters;
      Rectangle rectangle1 = new Rectangle(5, 4);
      Rectangle rectangle2 = new Rectangle(6, 3);

      int area1 = rectangle1.calculateArea();// initiating variables area 1 and area 2;
      int area2 = rectangle2.calculateArea();

  // checking the conditions with if- else Statment;
   if (area1 > area2) {
         System.out.println("Rectangle1 > Rectangle2");
      } else if (area1 < area2) {
         System.out.println("Rectangle1 < Rectangle2");
      } else {
         System.out.println("They are equal");
      }
   }
}
```

Output

Rectangle1> Rectangle2

Assignment-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 stat

```
// creating a class with BankAccount ;
public class BankAccount {
	// creating class member variables;
	String accountHolderName;
	int accountNumber;
	int balance;

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

	//getter and setter methods
	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;
	}

	//creating methods deposit, withdrawal;

	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)
	{
		// creating an obj as bank and printing the bank details;
		BankAccount bank = new BankAccount("Manjula",123456, 10000);
		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:

```
Bank output
a/c no 123456
a/c holder name  Manjula
a/c balace 10000
Minimum balance is maintained
Balance after deposit 11000
Minimum balance is maintained
Balance after withdraw 4000
```