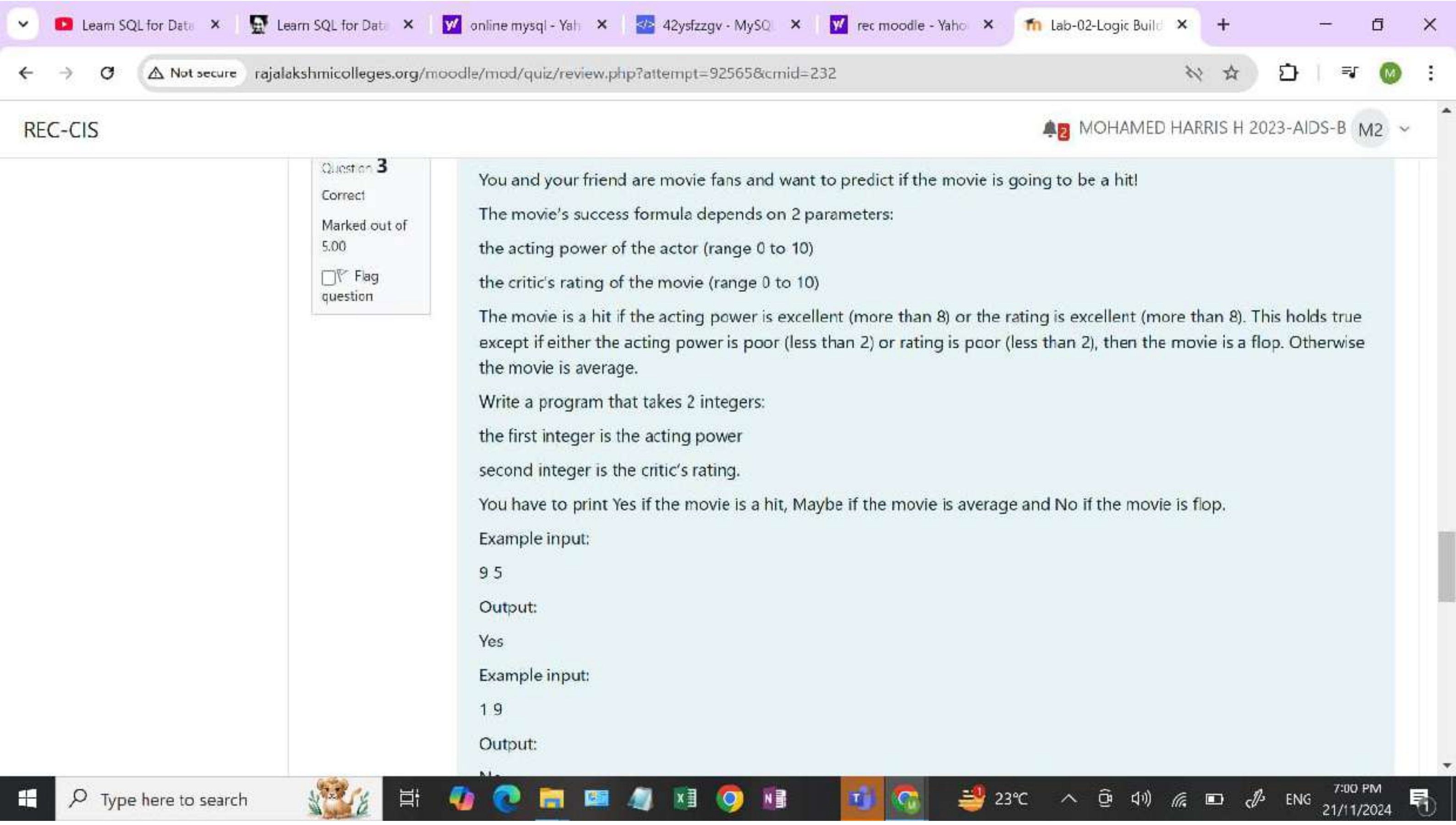


You and your friend are movie fans and want to predict if the movie is going to be a hit!

The movie's success formula depends on 2 parameters:

the acting power of the actor (range 0 to 10)

the critic's rating of the movie (range 0 to 10)

The movie is a hit if the acting power is excellent (more than 8) or the rating is excellent (more than 8). This holds true except if either the acting power is poor (less than 2) or rating is poor (less than 2), then the movie is a flop. Otherwise the movie is average.

Write a program that takes 2 integers:

the first integer is the acting power

second integer is the critic's rating.

You have to print Yes if the movie is a hit, Maybe if the movie is average and No if the movie is flop.

Example input:

9 5

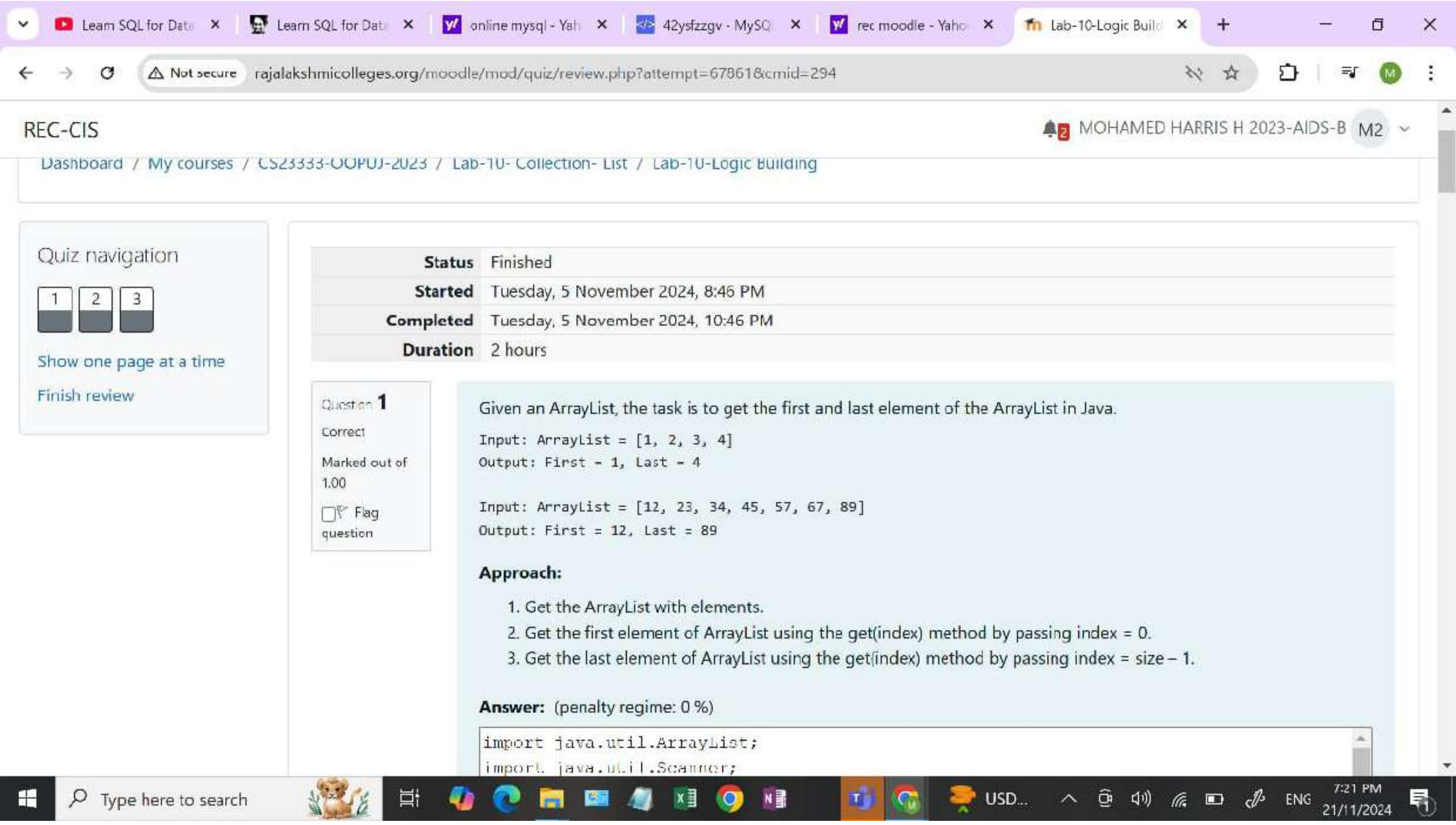
Output:

Yes

Example input:

1 9

Output:



Status	Finished
Started	Tuesday, 5 November 2024, 8:46 PM
Completed	Tuesday, 5 November 2024, 10:46 PM
Duration	2 hours

Question **1**

Correct

Marked out of 1.00

□ Flag question

Given an ArrayList, the task is to get the first and last element of the ArrayList in Java.

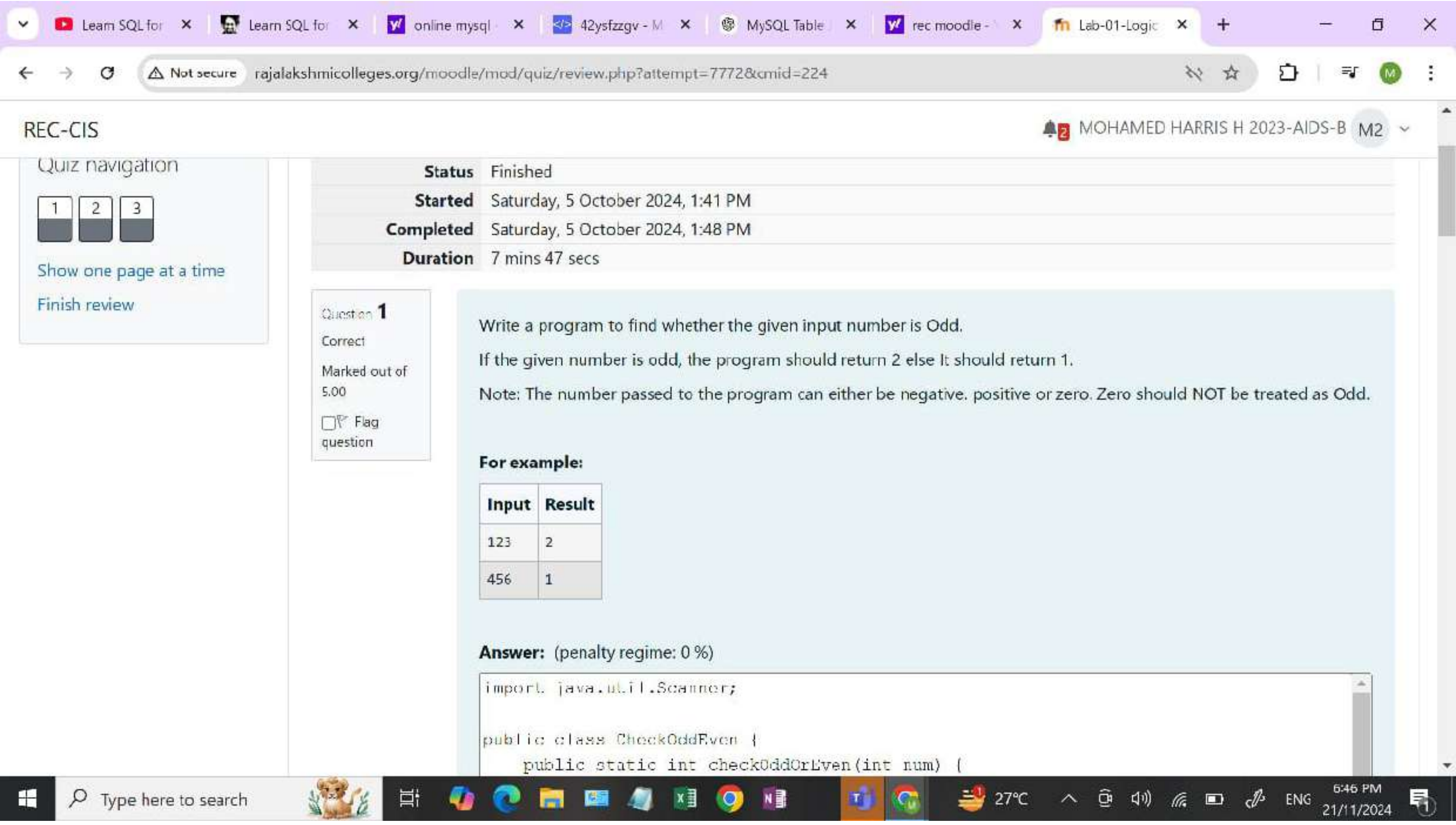
```
Input: ArrayList = [1, 2, 3, 4]
Output: First - 1, Last - 4

Input: ArrayList = [12, 23, 34, 45, 57, 67, 89]
Output: First = 12, Last = 89
```

Approach:

1. Get the ArrayList with elements.
2. Get the first element of ArrayList using the get(index) method by passing index = 0.
3. Get the last element of ArrayList using the get(index) method by passing index = size – 1.

Answer: (penalty regime: 0 %)

```
import java.util.ArrayList;
import java.util.Scanner;
```



Status	Finished
Started	Saturday, 5 October 2024, 1:41 PM
Completed	Saturday, 5 October 2024, 1:48 PM
Duration	7 mins 47 secs

Question 1

Correct

Marked out of 5.00

□ Flag question

Write a program to find whether the given input number is Odd.

If the given number is odd, the program should return 2 else It should return 1.

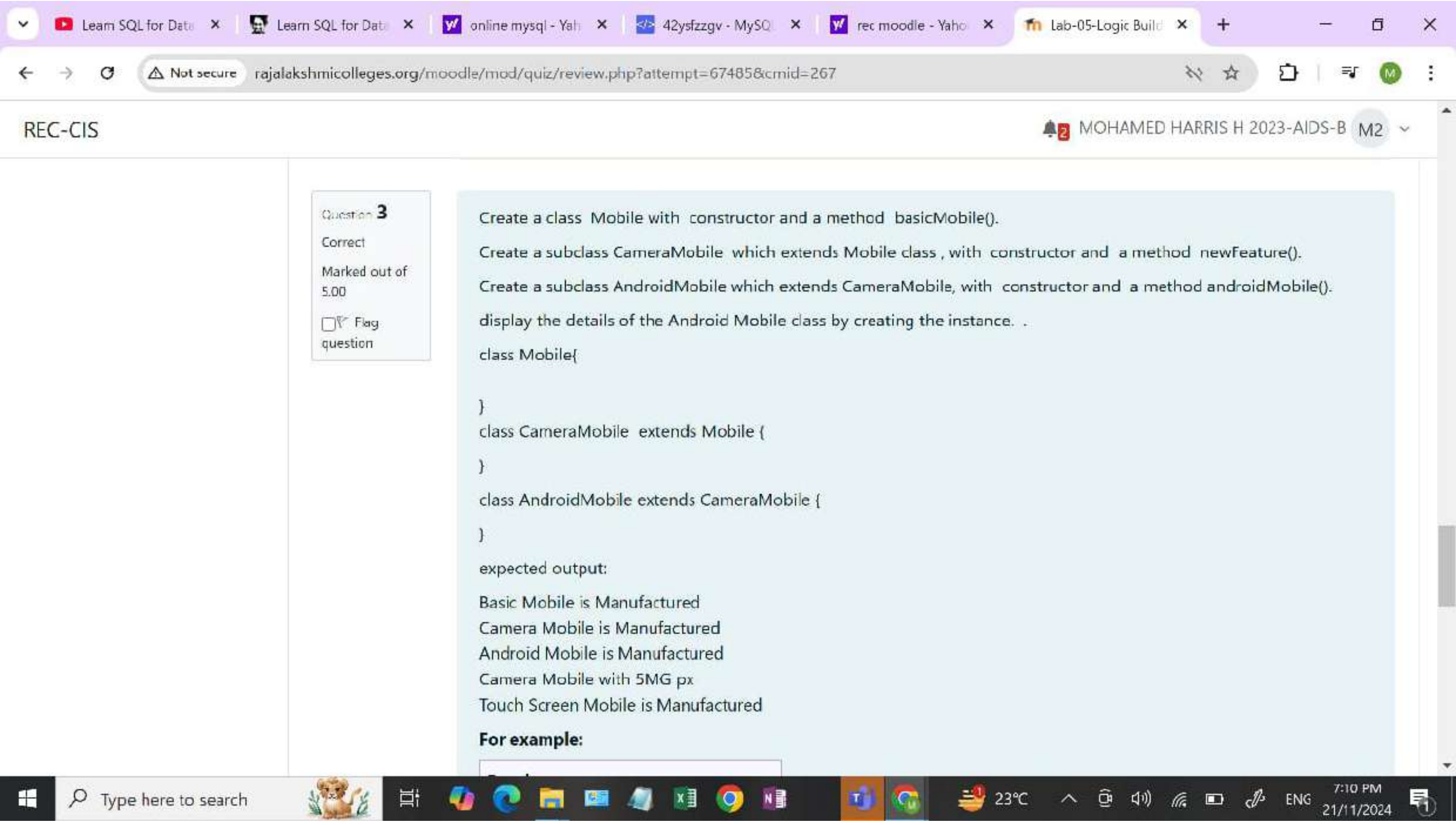
Note: The number passed to the program can either be negative. positive or zero. Zero should NOT be treated as Odd.

For example:

Input	Result
123	2
456	1

Answer: (penalty regime: 0 %)

```
import java.util.Scanner;

public class CheckOddEven {
    public static int checkOddOrEven(int num) {
```



Question 3

Correct

Marked out of 5.00

□ Flag question

Create a class Mobile with constructor and a method basicMobile().

Create a subclass CameraMobile which extends Mobile class , with constructor and a method newFeature().

Create a subclass AndroidMobile which extends CameraMobile, with constructor and a method androidMobile().

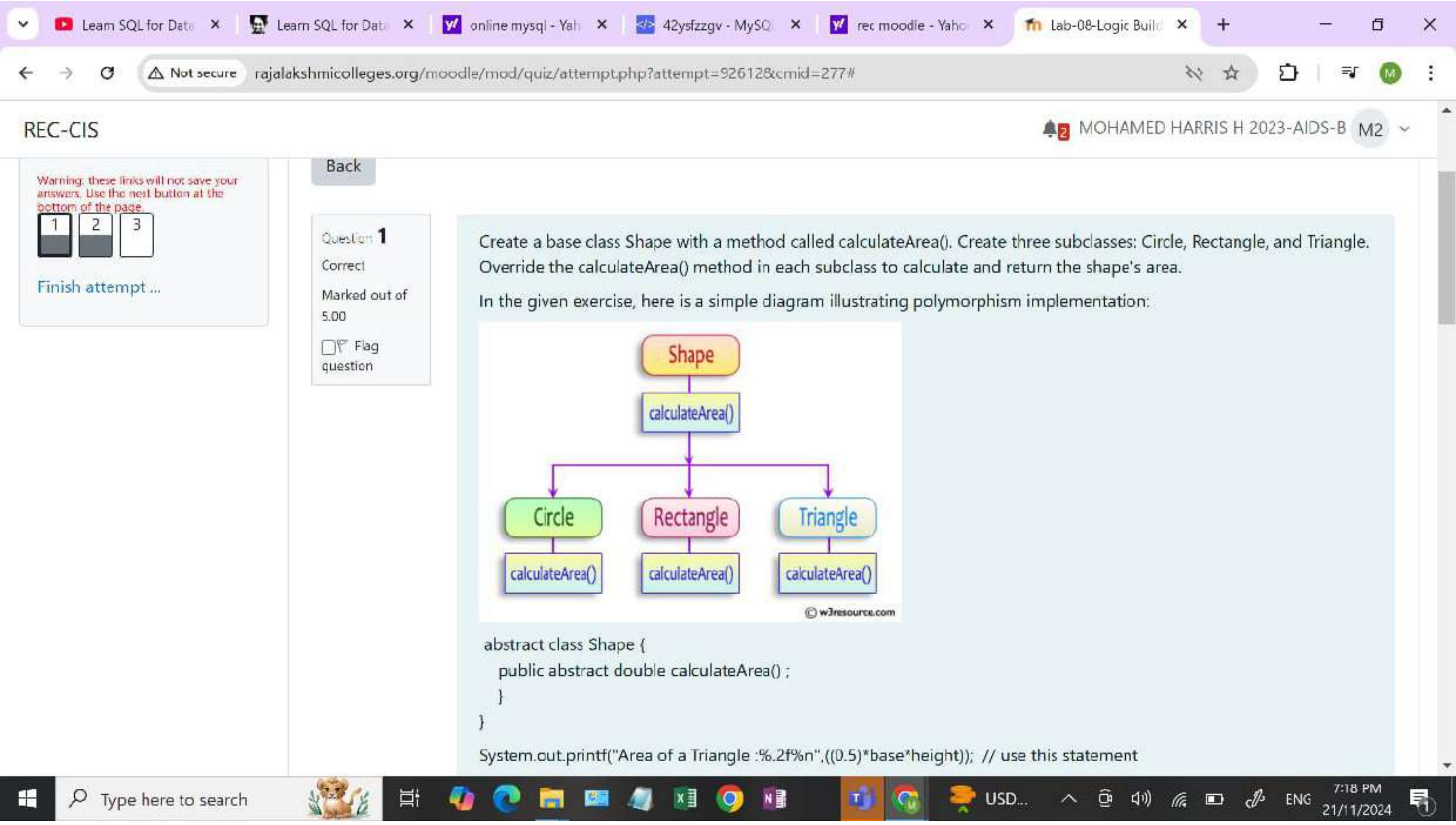
display the details of the Android Mobile class by creating the instance. .

```
class Mobile{

}
class CameraMobile  extends Mobile {
}
class AndroidMobile extends CameraMobile {
}
```

expected output:

```
Basic Mobile is Manufactured
Camera Mobile is Manufactured
Android Mobile is Manufactured
Camera Mobile with 5MG px
Touch Screen Mobile is Manufactured
```

For example:

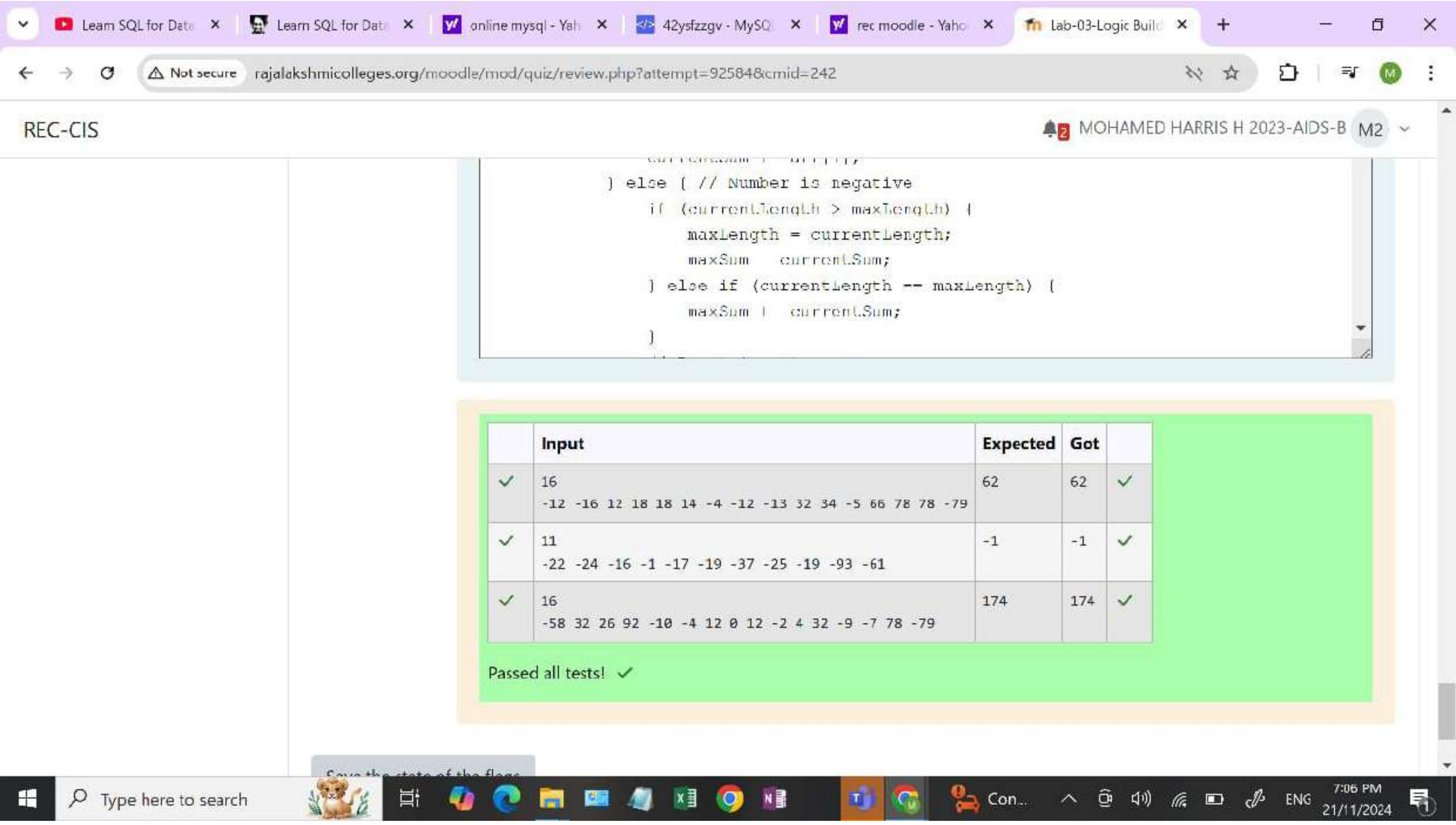


Create a base class Shape with a method called calculateArea(). Create three subclasses: Circle, Rectangle, and Triangle. Override the calculateArea() method in each subclass to calculate and return the shape's area.

In the given exercise, here is a simple diagram illustrating polymorphism implementation:

```
abstract class Shape {
    public abstract double calculateArea() ;
    }
}
```

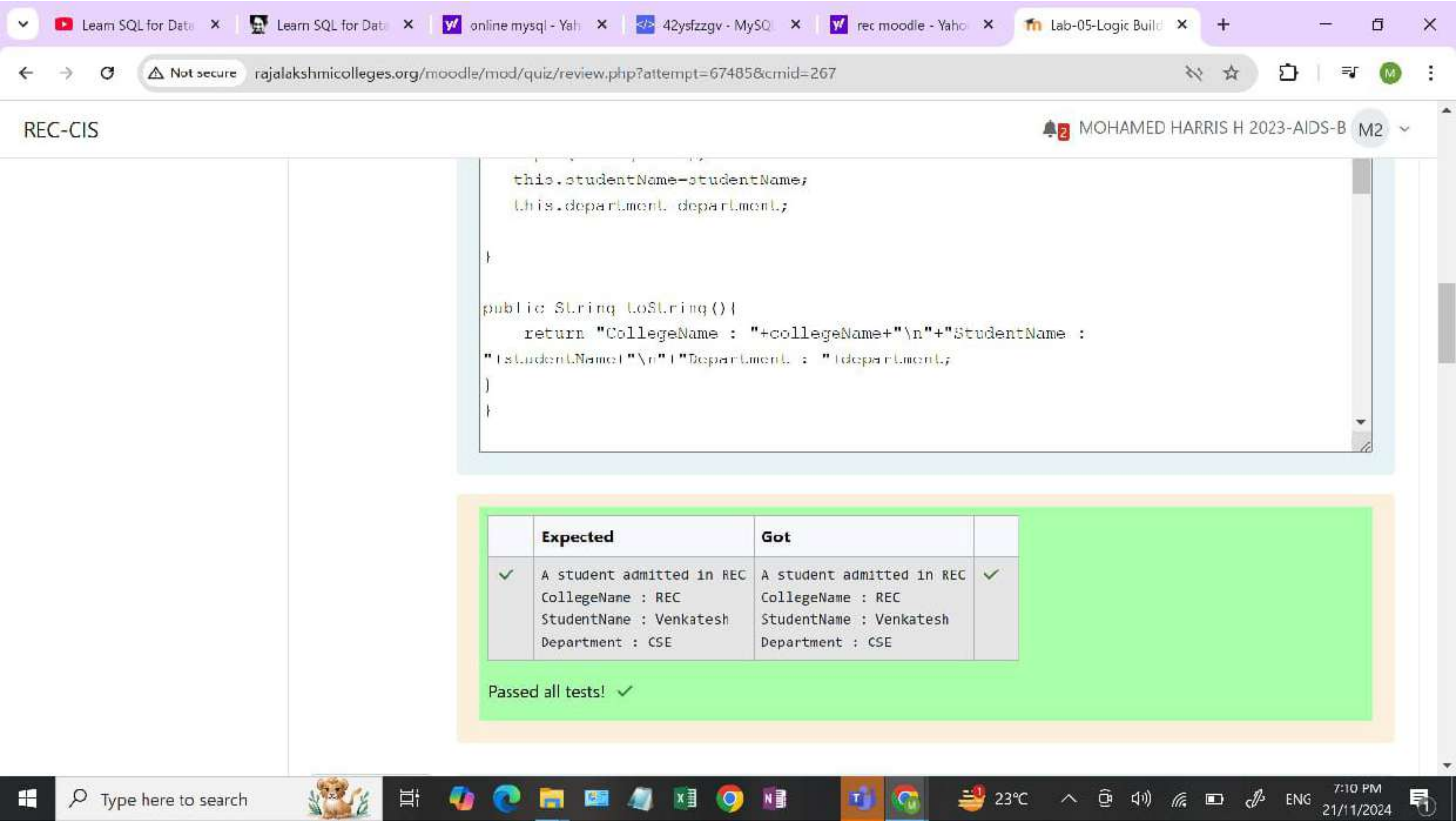
```
System.out.printf("Area of a Triangle :%.2f%n",((0.5)*base*height)); // use this statement
```



```
                currentSum += arr[i];
            } else { // Number is negative
                if (currentLength > maxLength) {
                    maxLength = currentLength;
                    maxSum = currentSum;
                } else if (currentLength == maxLength) {
                    maxSum += currentSum;
                }
```

	Input	Expected	Got	
✓	16 -12 -16 12 18 18 14 -4 -12 -13 32 34 -5 66 78 78 -79	62	62	✓
✓	11 -22 -24 -16 -1 -17 -19 -37 -25 -19 -93 -61	-1	-1	✓
✓	16 -58 32 26 92 -10 -4 12 0 12 -2 4 32 -9 -7 78 -79	174	174	✓

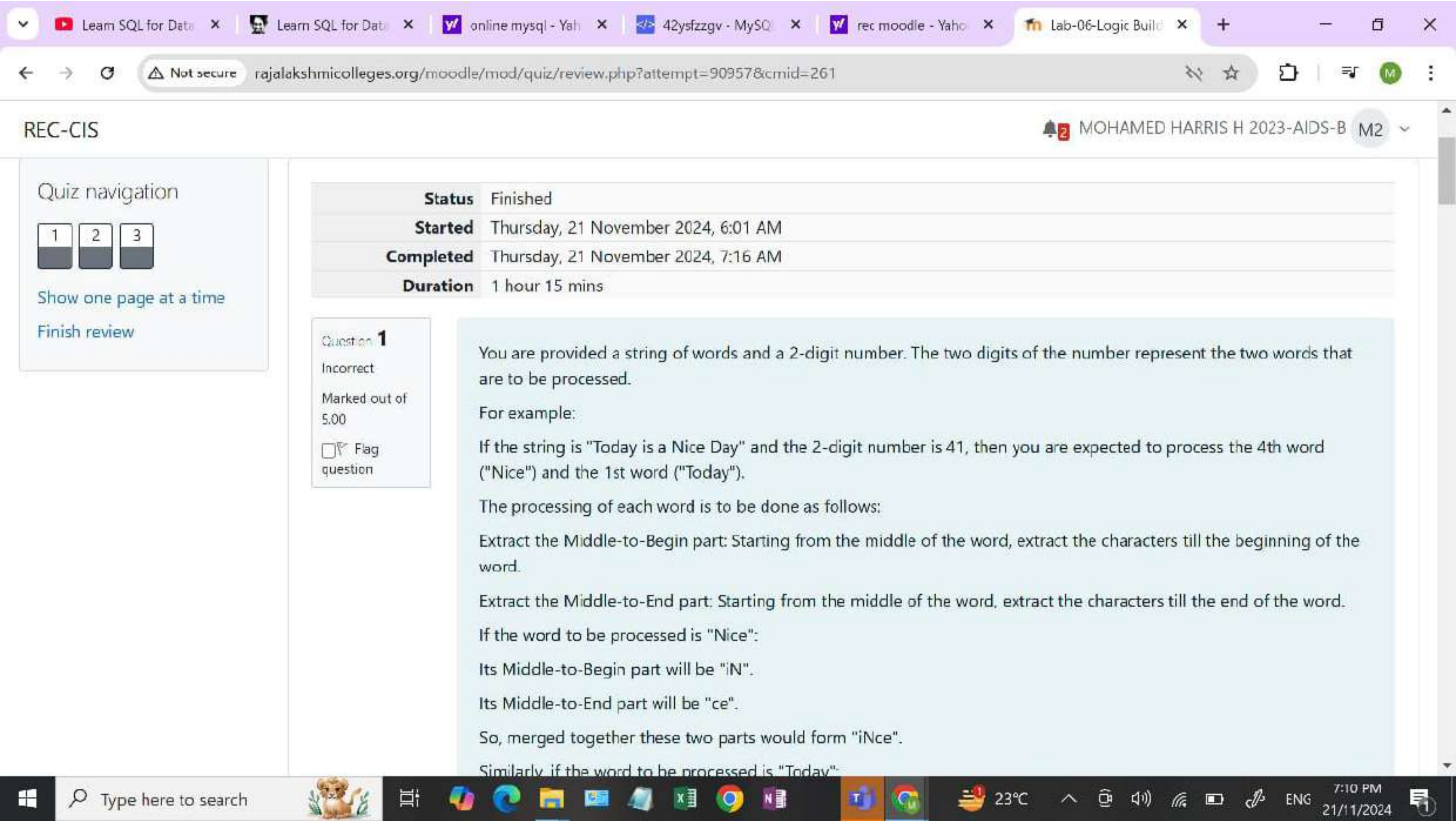
Passed all tests! ✓



```
    this.studentName=studentName;
    this.department=department;

}

public String toString(){
     return "CollegeName : "+collegeName+"\n"+"StudentName : 
"+studentName+"\n"+"Department : "+department;
}
}
```

	Expected	Got	
✓	A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE	A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE	✓

Passed all tests! ✓



Status	Finished
Started	Thursday, 21 November 2024, 6:01 AM
Completed	Thursday, 21 November 2024, 7:16 AM
Duration	1 hour 15 mins

Question **1**

Incorrect

Marked out of 5.00

□ Flag question

You are provided a string of words and a 2-digit number. The two digits of the number represent the two words that are to be processed.

For example:

If the string is "Today is a Nice Day" and the 2-digit number is 41, then you are expected to process the 4th word ("Nice") and the 1st word ("Today").

The processing of each word is to be done as follows:

Extract the Middle-to-Begin part: Starting from the middle of the word, extract the characters till the beginning of the word.

Extract the Middle-to-End part: Starting from the middle of the word, extract the characters till the end of the word.

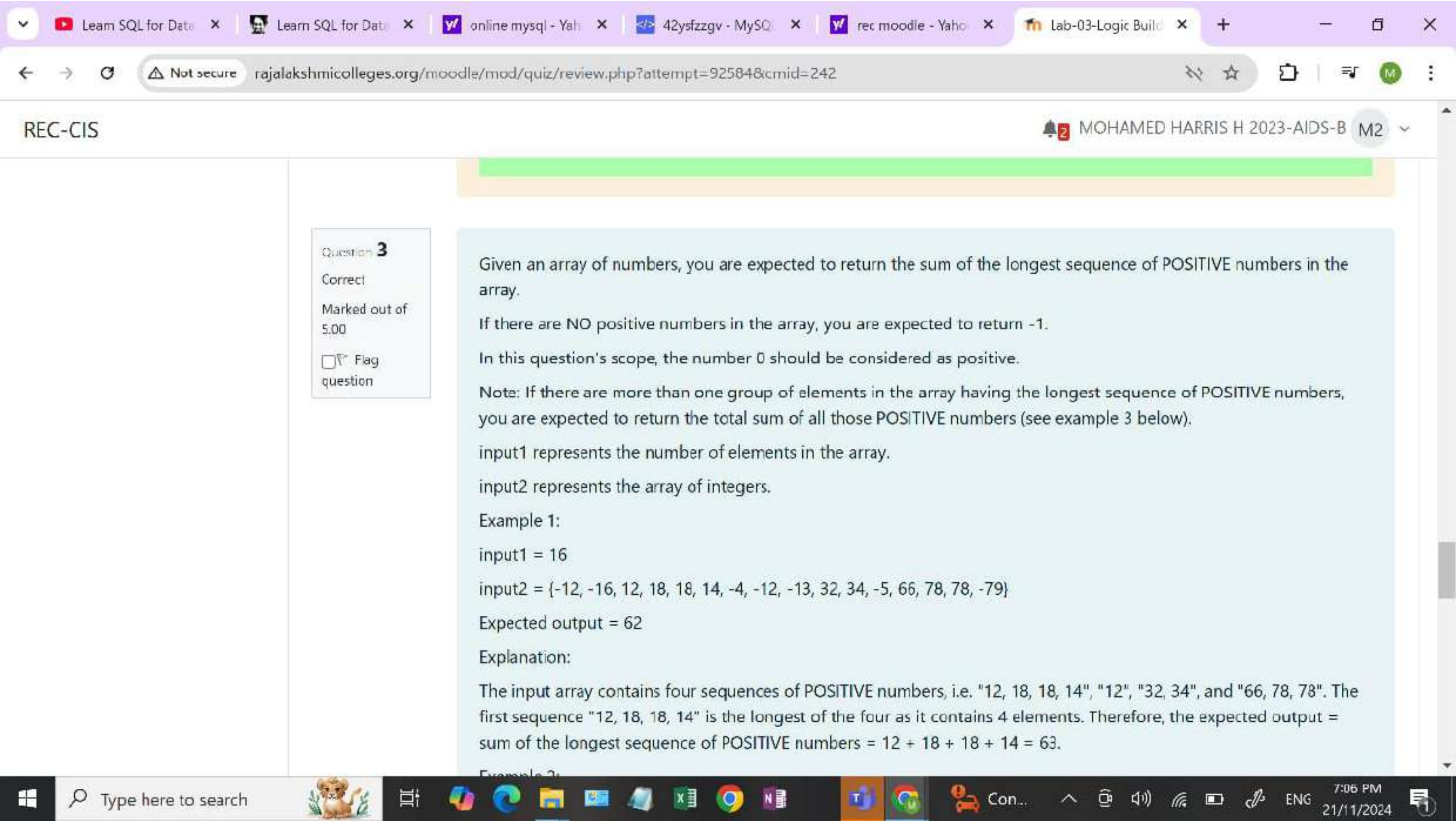
If the word to be processed is "Nice":

Its Middle-to-Begin part will be "iN".

Its Middle-to-End part will be "ce".

So, merged together these two parts would form "iNce".

Similarly, if the word to be processed is "Today":



Question 3

Correct

Marked out of 5.00

□ Flag question

Given an array of numbers, you are expected to return the sum of the longest sequence of POSITIVE numbers in the array.

If there are NO positive numbers in the array, you are expected to return -1.

In this question's scope, the number 0 should be considered as positive.

Note: If there are more than one group of elements in the array having the longest sequence of POSITIVE numbers, you are expected to return the total sum of all those POSITIVE numbers (see example 3 below).

input1 represents the number of elements in the array.

input2 represents the array of integers.

Example 1:

input1 = 16

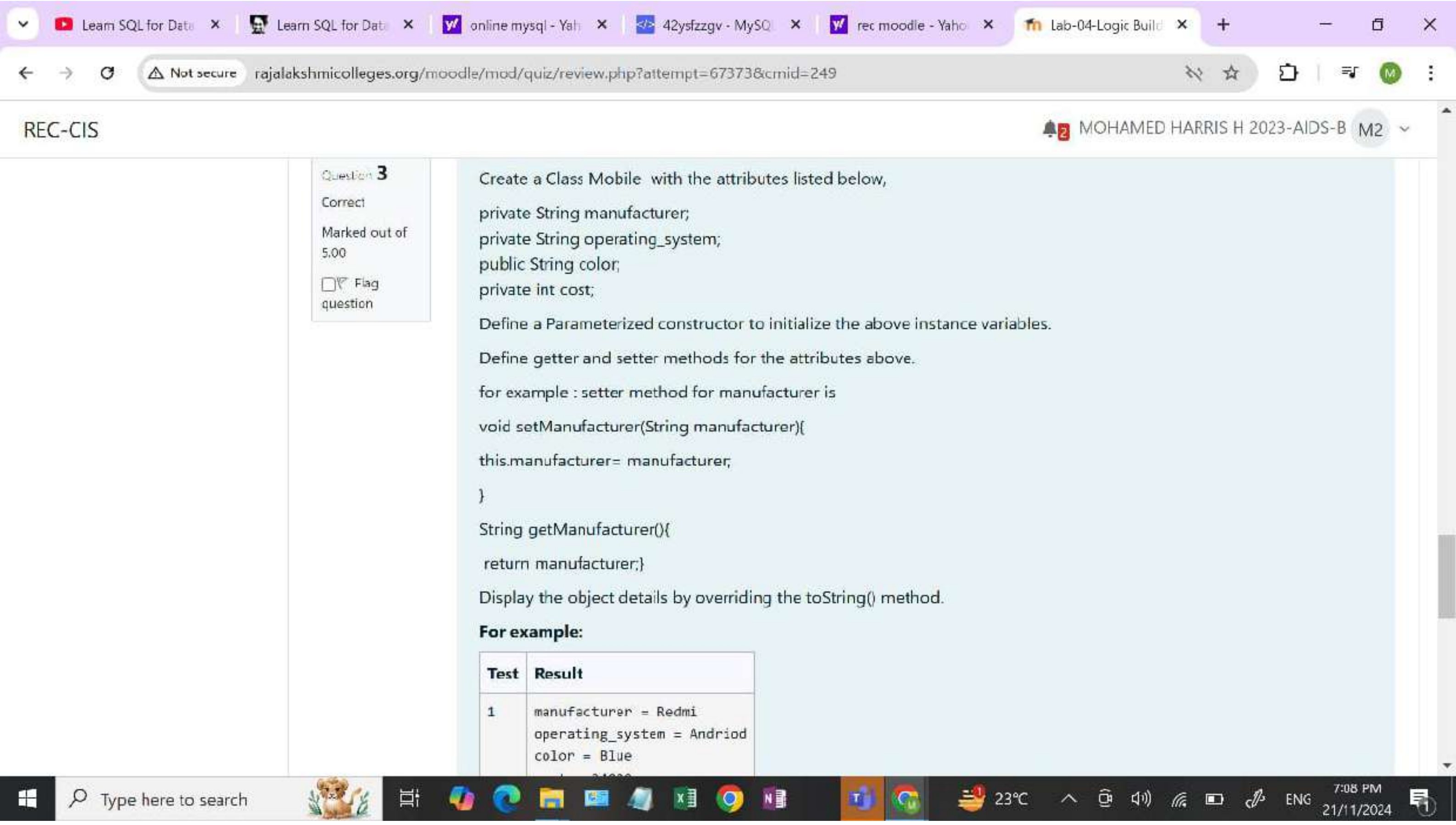
input2 = {-12, -16, 12, 18, 18, 14, -4, -12, -13, 32, 34, -5, 66, 78, 78, -79}

Expected output = 62

Explanation:

The input array contains four sequences of POSITIVE numbers, i.e. "12, 18, 18, 14", "12", "32, 34", and "66, 78, 78". The first sequence "12, 18, 18, 14" is the longest of the four as it contains 4 elements. Therefore, the expected output = sum of the longest sequence of POSITIVE numbers = 12 + 18 + 18 + 14 = 63.

Example 2:



Question 3

Correct

Marked out of 5.00

□ Flag question

Create a Class Mobile with the attributes listed below,

private String manufacturer;
private String operating_system;
public String color;
private int cost;

Define a Parameterized constructor to initialize the above instance variables.

Define getter and setter methods for the attributes above.

for example : setter method for manufacturer is

void setManufacturer(String manufacturer){

this.manufacturer= manufacturer;

}

String getManufacturer(){

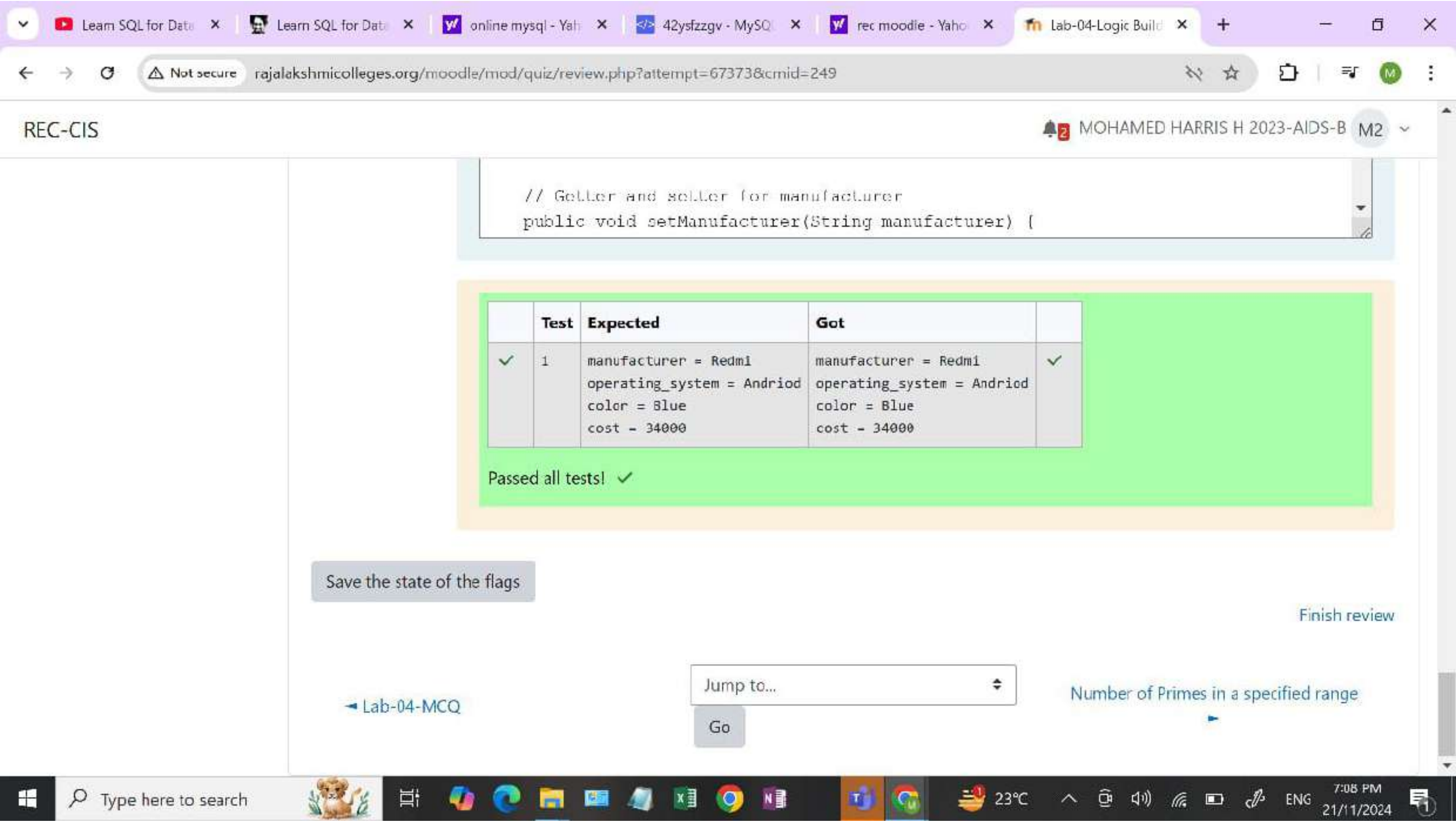
return manufacturer;}

Display the object details by overriding the toString() method.

For example:

Test	Result

1	manufacturer = Redmi
	operating_system = Andriod
	color = Blue



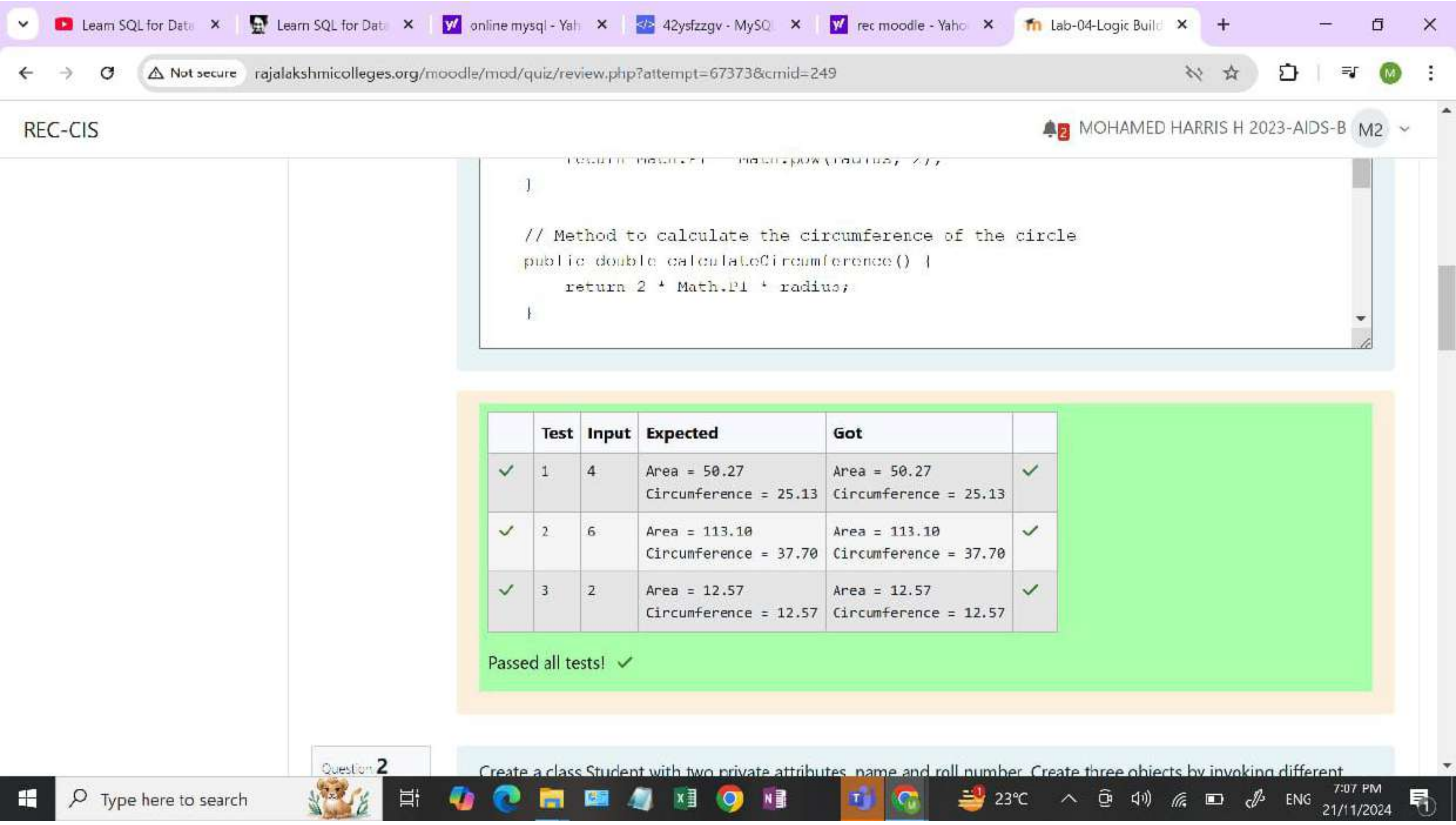
```
    // Getter and setter for manufacturer
    public void setManufacturer(String manufacturer) {
```

	Test	Expected	Got	

✓	1	manufacturer = Redmi
		operating_system = Andriod
		color = Blue
		cost = 34000
			manufacturer = Redmi
			operating_system = Andriod
			color = Blue
			cost = 34000
				✓

Passed all tests! ✓

Save the state of the flags
Finish review
◄ Lab-04-MCQ
Jump to...
Go
Number of Primes in a specified range ►

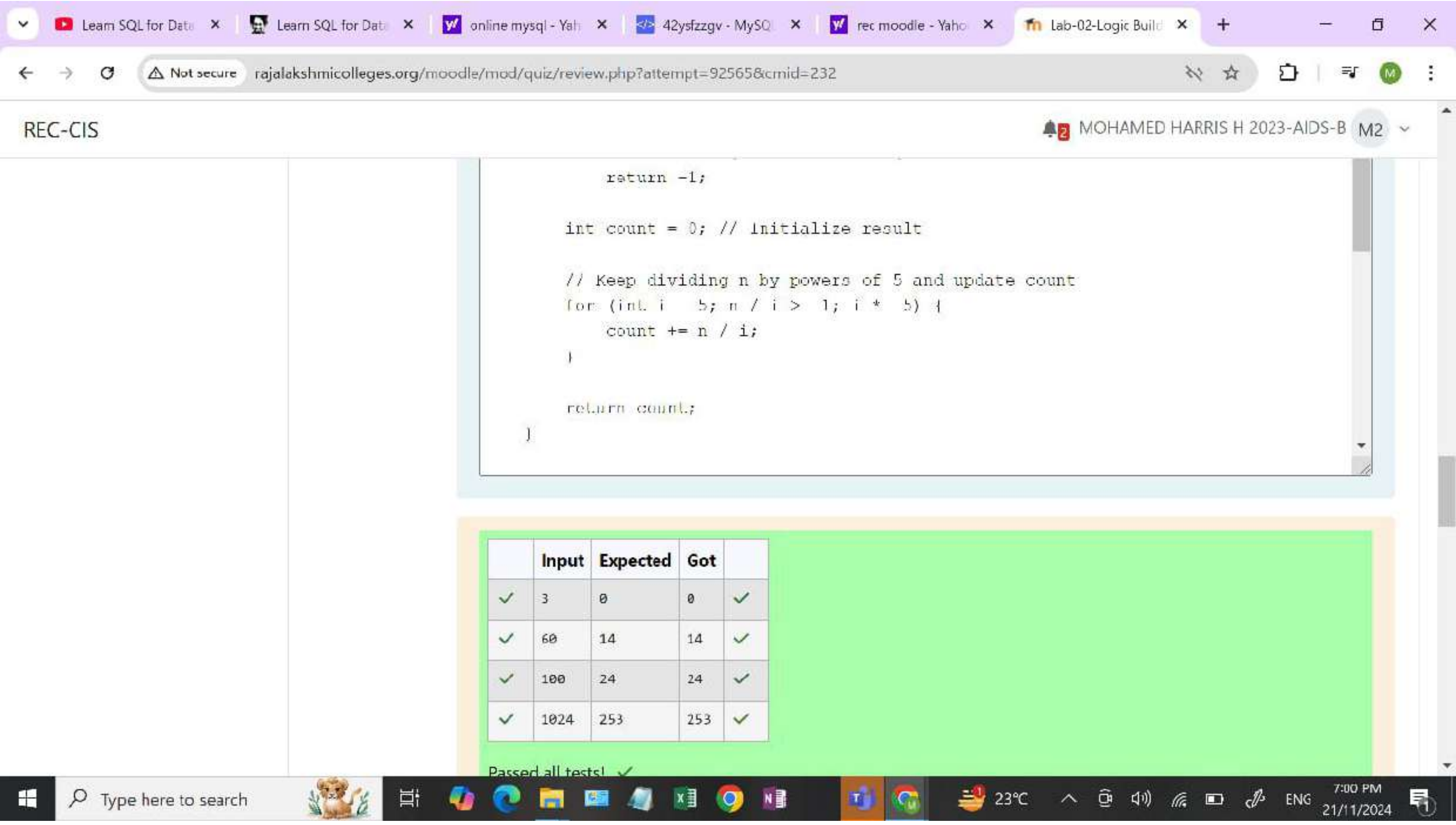


```
        return Math.PI * Math.pow(radius, 2);
    }

    // Method to calculate the circumference of the circle
    public double calculateCircumference() {
        return 2 * Math.PI * radius;
    }
```

	Test	Input	Expected	Got	
✓	1	4	Area = 50.27 Circumference = 25.13	Area = 50.27 Circumference = 25.13	✓
✓	2	6	Area = 113.10 Circumference = 37.70	Area = 113.10 Circumference = 37.70	✓
✓	3	2	Area = 12.57 Circumference = 12.57	Area = 12.57 Circumference = 12.57	✓

Passed all tests! ✓

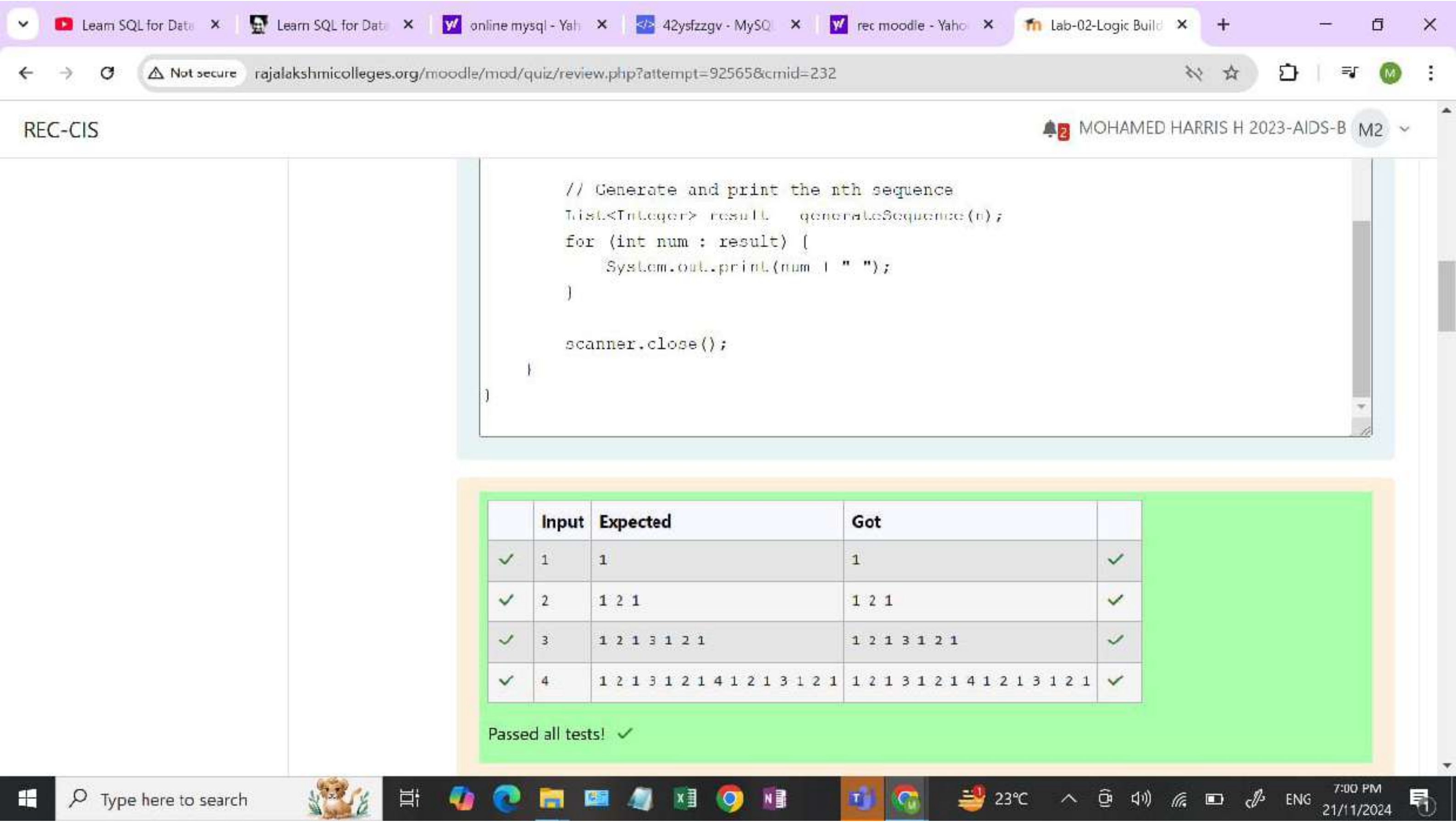
Create a class Student with two private attributes, name and roll number. Create three objects by invoking different



```
        return -1;

    int count = 0; // Initialize result

    // Keep dividing n by powers of 5 and update count
    for (int i = 5; n / i >= 1; i *= 5) {
        count += n / i;
    }

    return count;
}
```

	Input	Expected	Got	
✓	3	0	0	✓
✓	60	14	14	✓
✓	100	24	24	✓
✓	1024	253	253	✓

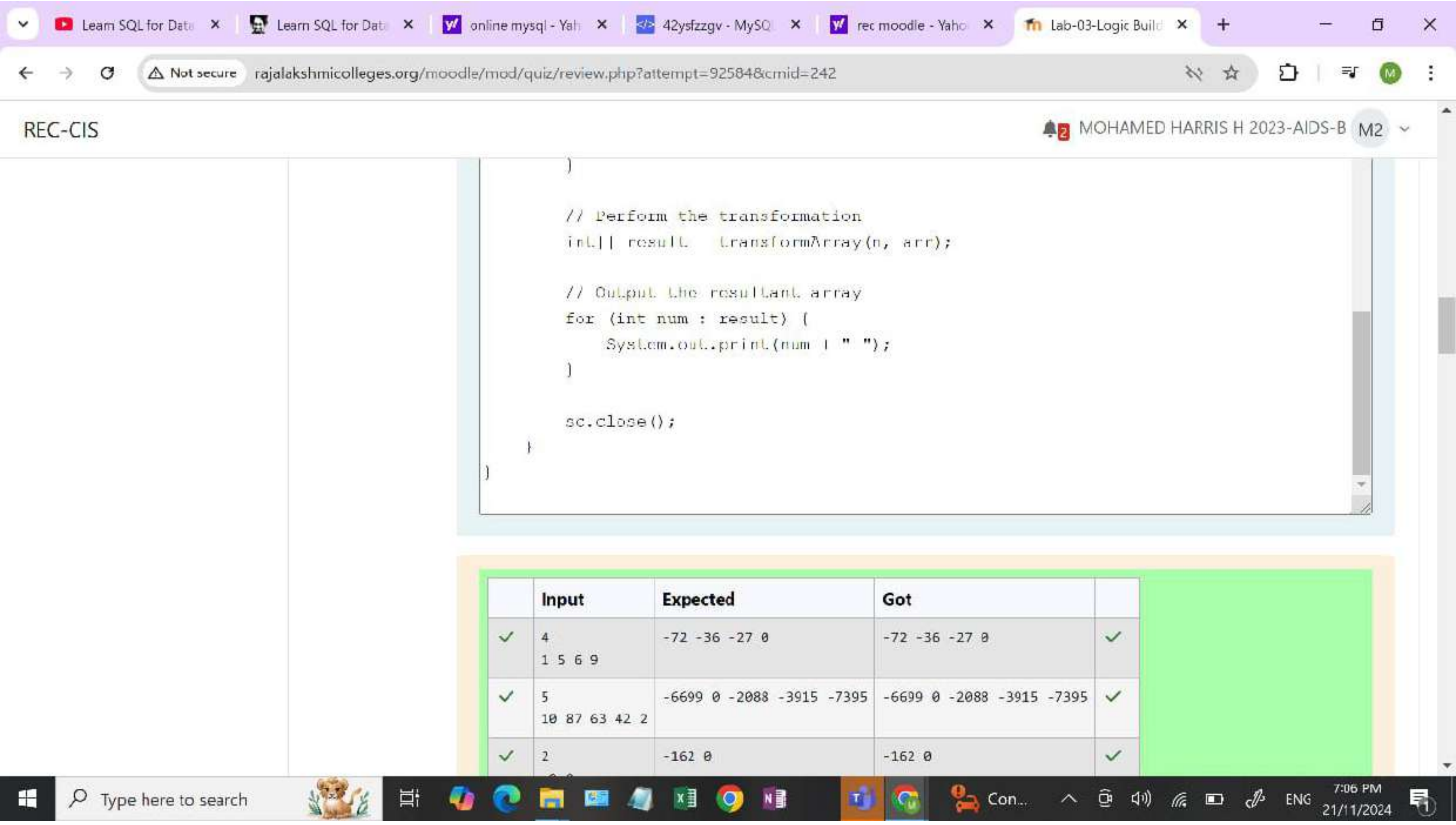
Passed all tests! ✓



```
        // Generate and print the nth sequence
        List<Integer> result = generateSequence(n);
        for (int num : result) {
            System.out.print(num + " ");
        }

        scanner.close();
    }
}
```

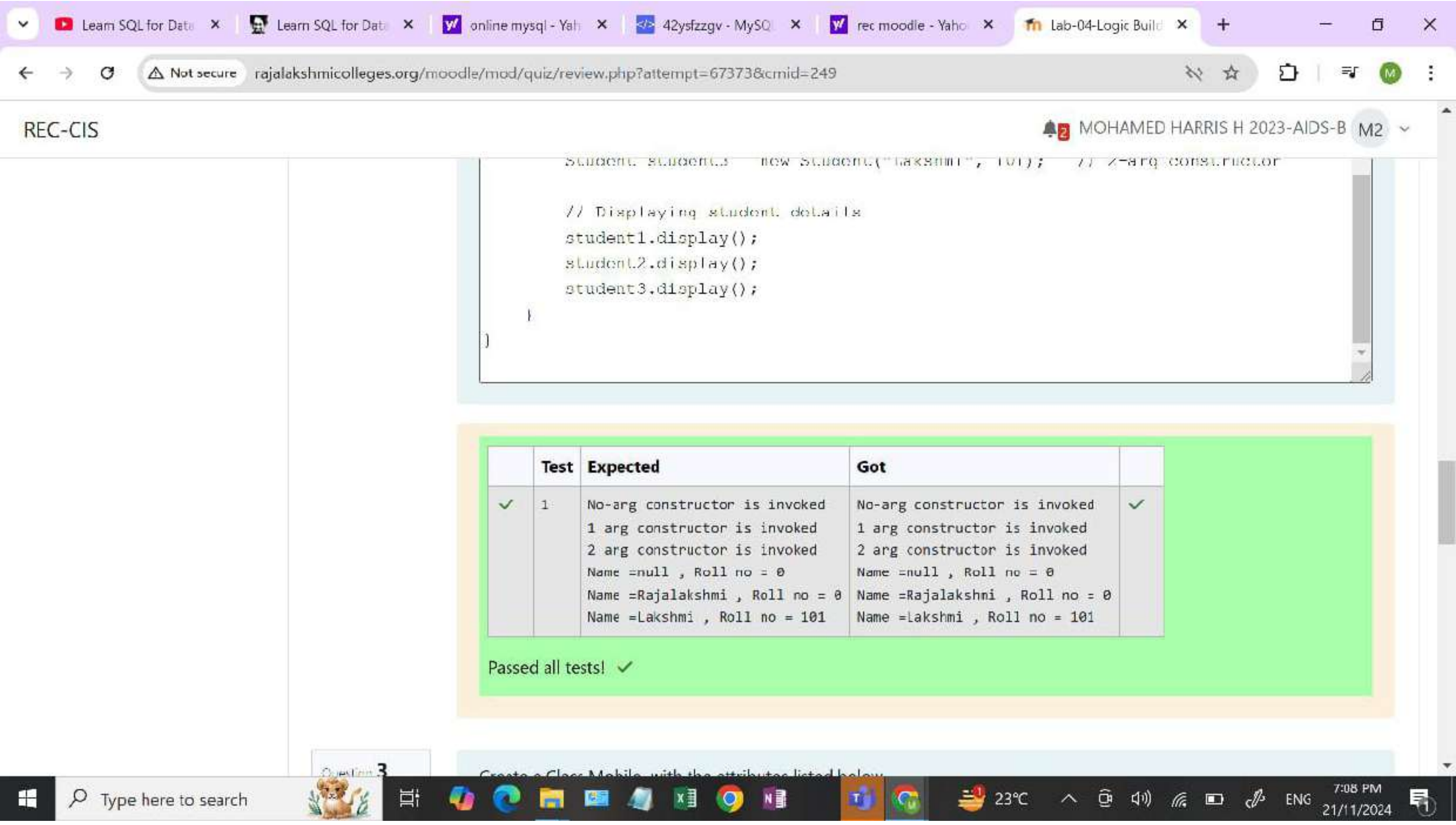
	Input	Expected	Got	
✓	1	1	1	✓
✓	2	1 2 1	1 2 1	✓
✓	3	1 2 1 3 1 2 1	1 2 1 3 1 2 1	✓
✓	4	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	✓

Passed all tests! ✓



```
        }

        // Perform the transformation
        int[] result = transformArray(n, arr);

        // Output the resultant array
        for (int num : result) {
            System.out.print(num + " ");
        }

        sc.close();
    }
}
```

	Input	Expected	Got	
✓	4 1 5 6 9	-72 -36 -27 0	-72 -36 -27 0	✓
✓	5 10 87 63 42 2	-6699 0 -2088 -3915 -7395	-6699 0 -2088 -3915 -7395	✓
✓	2	-162 0	-162 0	✓



```
        Student student3 = new Student("Lakshmi", 101);   // 2-arg constructor

        // Displaying student details
        student1.display();
        student2.display();
        student3.display();
    }
}
```

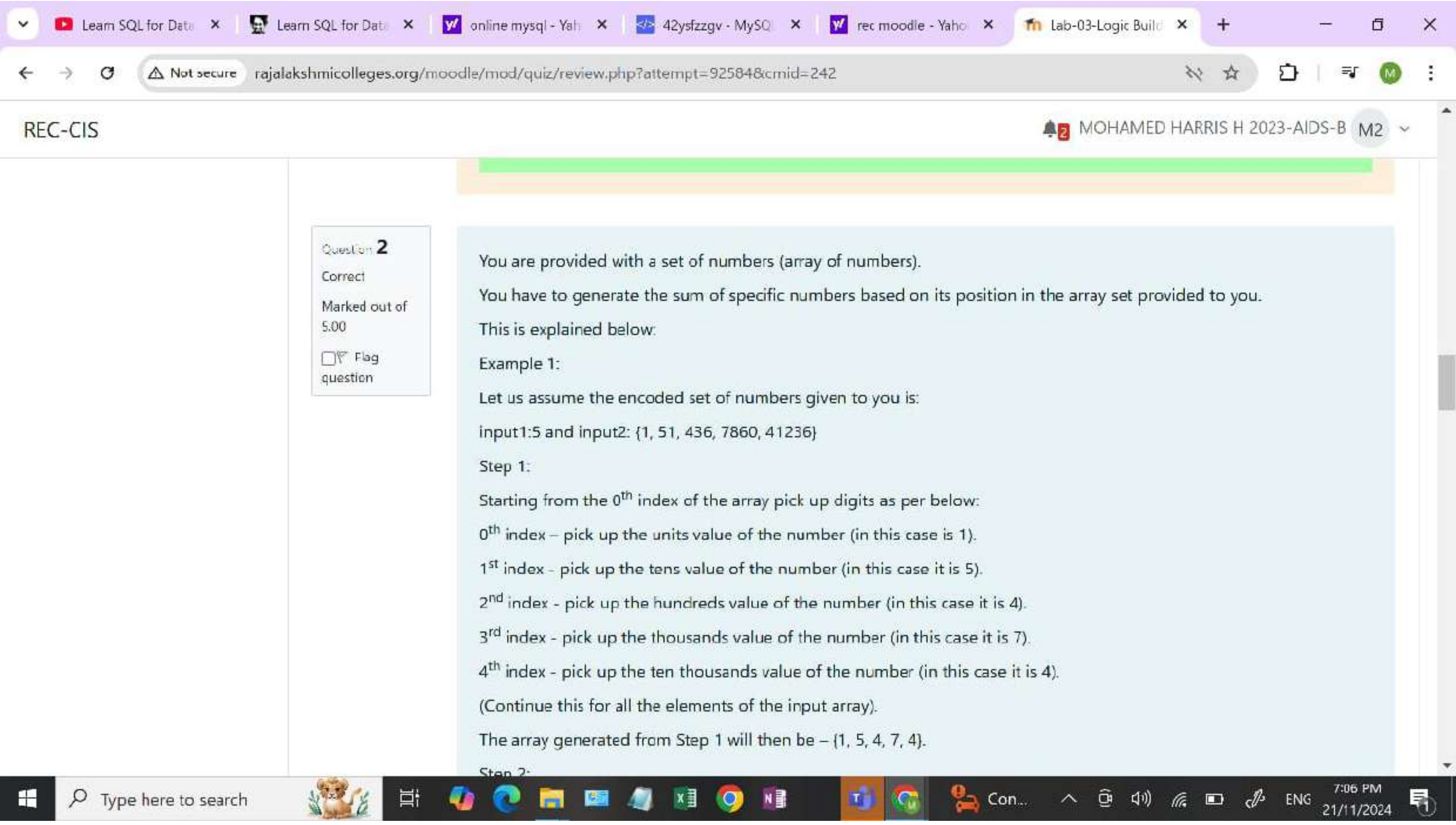
	Test	Expected	Got	

✓	1	No-arg constructor is invoked
		1 arg constructor is invoked
		2 arg constructor is invoked
		Name =null , Roll no = 0
		Name =Rajalakshmi , Roll no = 0
		Name =Lakshmi , Roll no = 101
			No-arg constructor is invoked
			1 arg constructor is invoked
			2 arg constructor is invoked
			Name =null , Roll no = 0
			Name =Rajalakshmi , Roll no = 0
			Name =Lakshmi , Roll no = 101
				✓

Passed all tests! ✓

Question 3

Create a Class Mobile with the attributes listed below



You are provided with a set of numbers (array of numbers).

You have to generate the sum of specific numbers based on its position in the array set provided to you.

This is explained below:

Example 1:

Let us assume the encoded set of numbers given to you is:

input1:5 and input2: {1, 51, 436, 7860, 41236}

Step 1:

Starting from the 0th index of the array pick up digits as per below:

0th index – pick up the units value of the number (in this case is 1).

1st index - pick up the tens value of the number (in this case it is 5).

2nd index - pick up the hundreds value of the number (in this case it is 4).

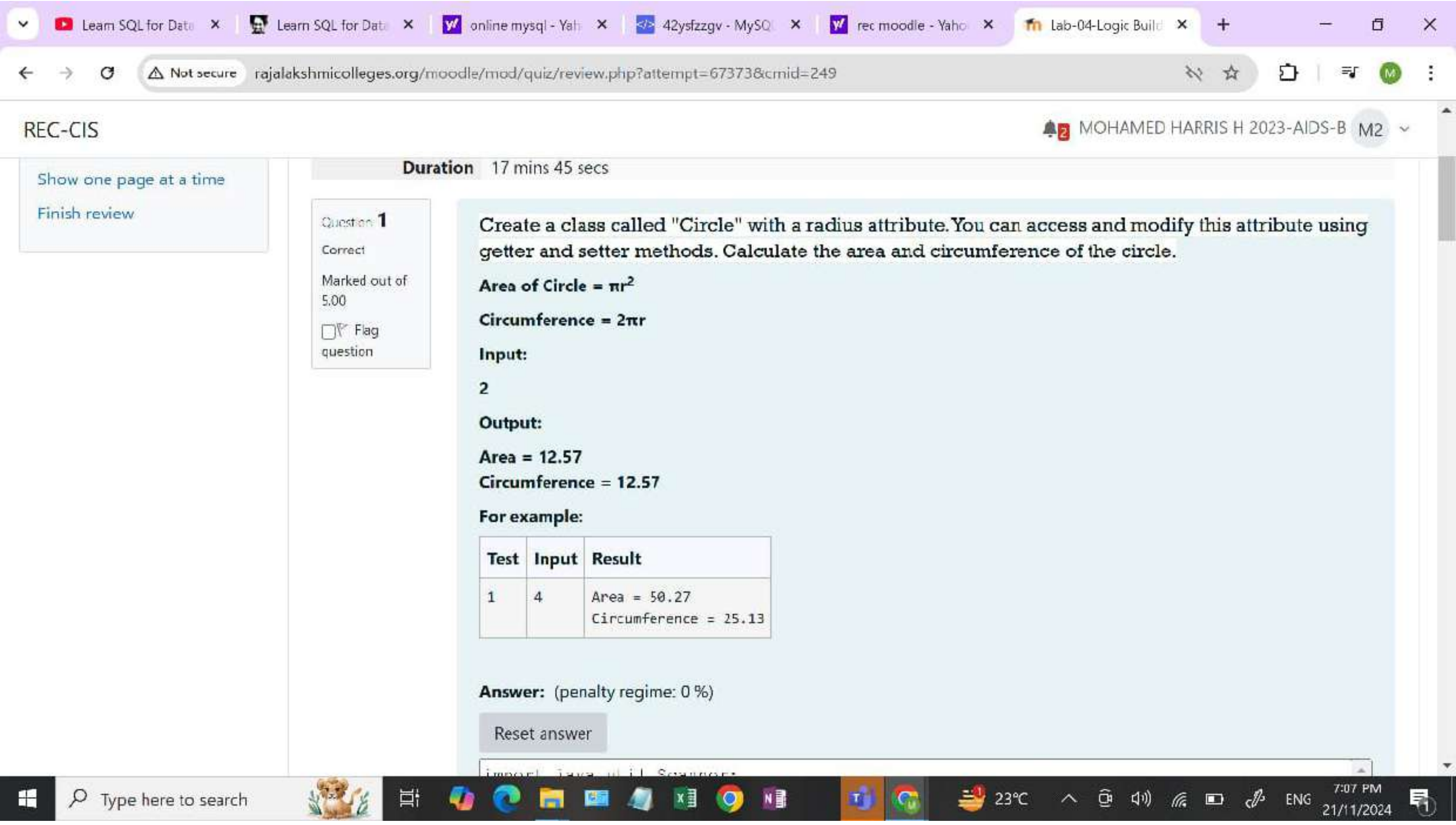
3rd index - pick up the thousands value of the number (in this case it is 7).

4th index - pick up the ten thousands value of the number (in this case it is 4).

(Continue this for all the elements of the input array).

The array generated from Step 1 will then be – {1, 5, 4, 7, 4}.

Step 2:



Duration 17 mins 45 secs

Question **1**

Correct

Marked out of 5.00

□ Flag question

Create a class called "Circle" with a radius attribute. You can access and modify this attribute using getter and setter methods. Calculate the area and circumference of the circle.

Area of Circle = πr^2

Circumference = $2\pi r$

Input:

2

Output:

Area = 12.57
Circumference = 12.57

For example:

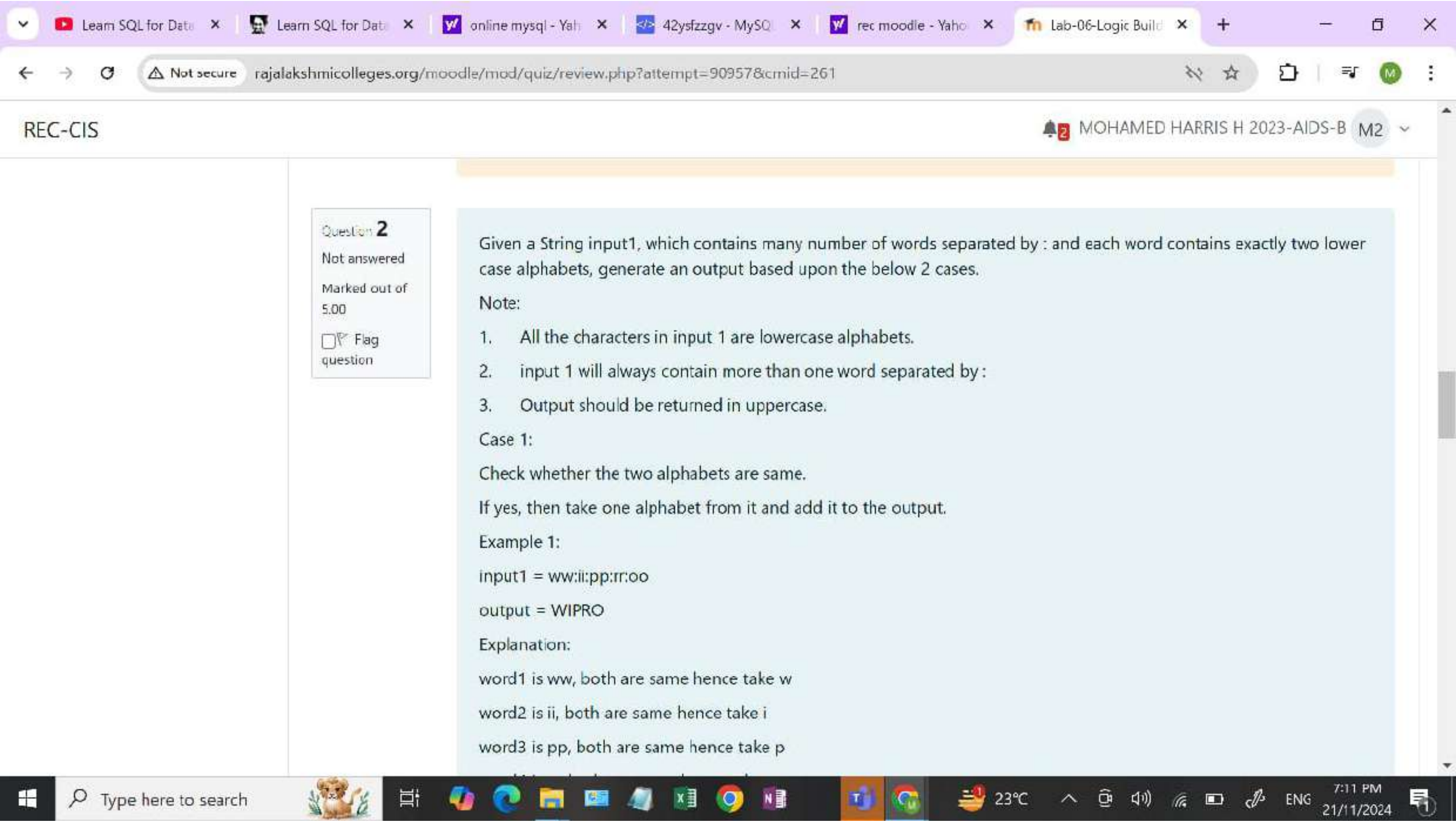
Test	Input	Result

1	4	Area = 50.27
		Circumference = 25.13

Answer: (penalty regime: 0 %)

Reset answer

```
import java.util.Scanner;
```



Question 2

Not answered

Marked out of 5.00

□ Flag question

Given a String input1, which contains many number of words separated by : and each word contains exactly two lower case alphabets, generate an output based upon the below 2 cases.

Note:

1. All the characters in input 1 are lowercase alphabets.
2. input 1 will always contain more than one word separated by :
3. Output should be returned in uppercase.

Case 1:

Check whether the two alphabets are same.

If yes, then take one alphabet from it and add it to the output.

Example 1:

input1 = ww:ii:pp:rr:oo

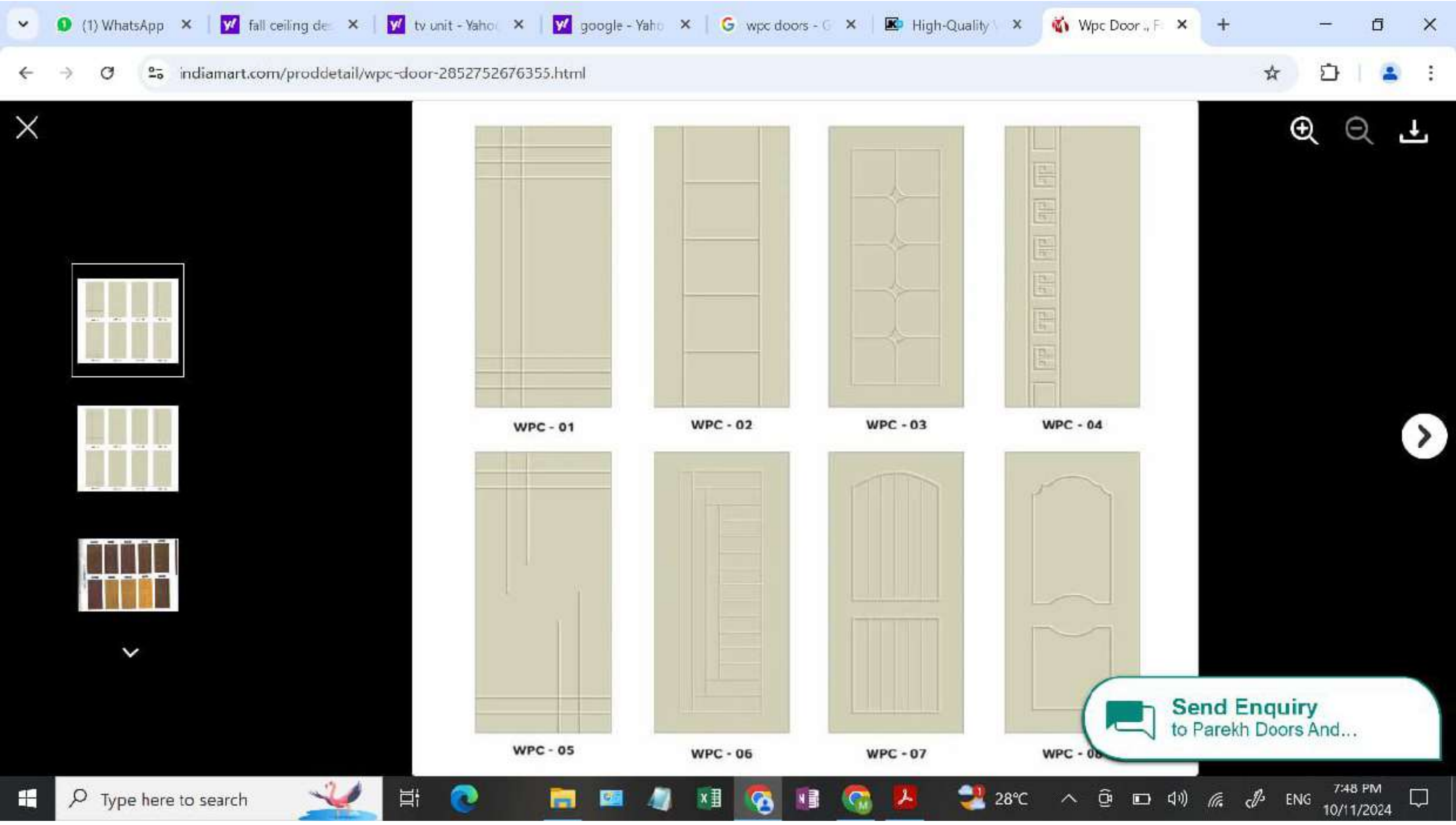
output = WIPRO

Explanation:

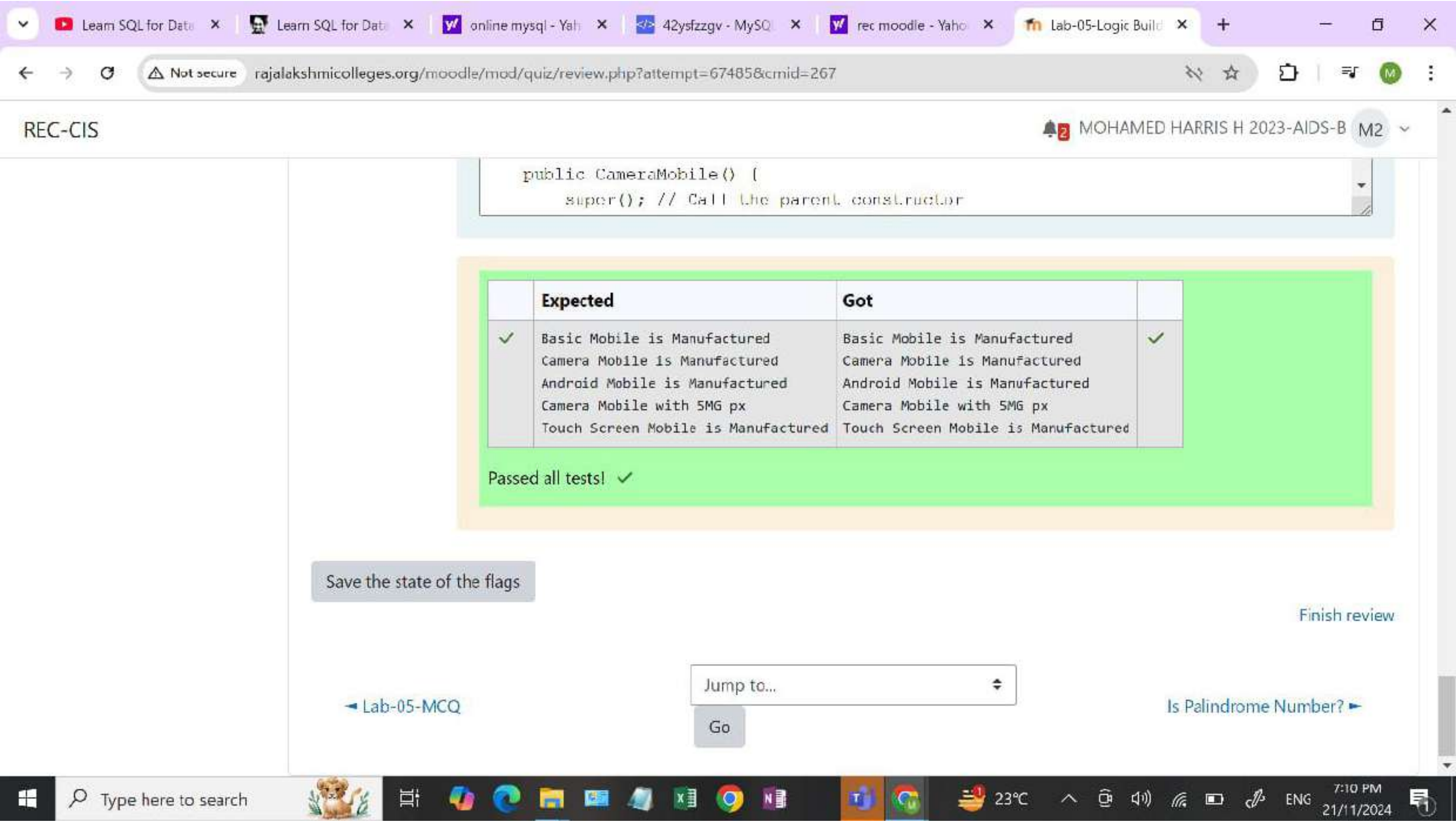
word1 is ww, both are same hence take w

word2 is ii, both are same hence take i

word3 is pp, both are same hence take p



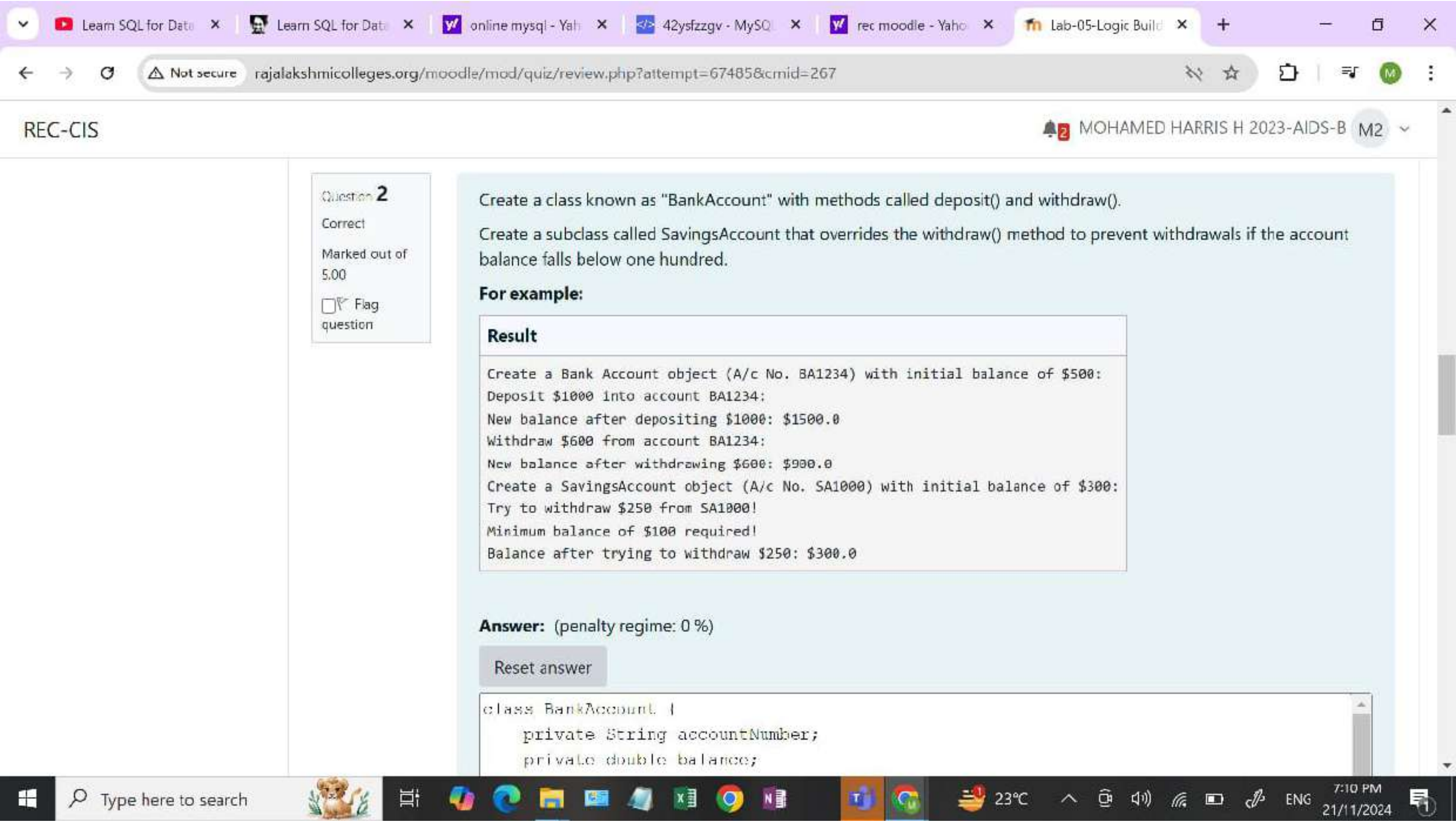
indiamart.com/proddetail/wpc-door-2852752676355.html



```
public CameraMobile() {
    super(); // Call the parent constructor
```

	Expected	Got	
✓	Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured	Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured	✓

Passed all tests! ✓



Question 2

Correct

Marked out of 5.00

□ Flag question

Create a class known as "BankAccount" with methods called deposit() and withdraw().

Create a subclass called SavingsAccount that overrides the withdraw() method to prevent withdrawals if the account balance falls below one hundred.

For example:

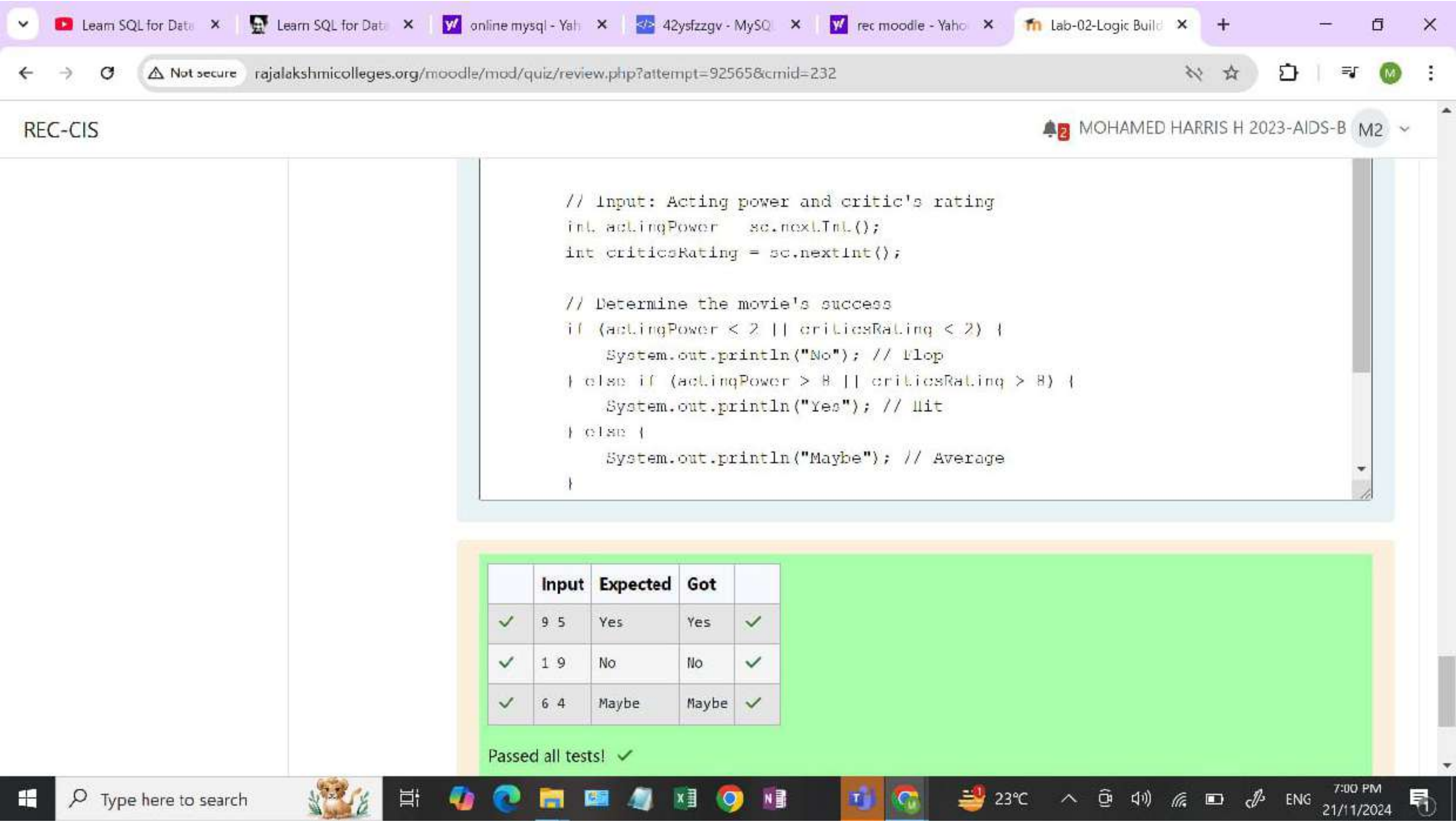
Result

```
Create a Bank Account object (A/c No. BA1234) with initial balance of $500:
Deposit $1000 into account BA1234:
New balance after depositing $1000: $1500.0
Withdraw $600 from account BA1234:
New balance after withdrawing $600: $900.0
Create a SavingsAccount object (A/c No. SA1000) with initial balance of $300:
Try to withdraw $250 from SA1000!
Minimum balance of $100 required!
Balance after trying to withdraw $250: $300.0
```

Answer: (penalty regime: 0 %)

Reset answer

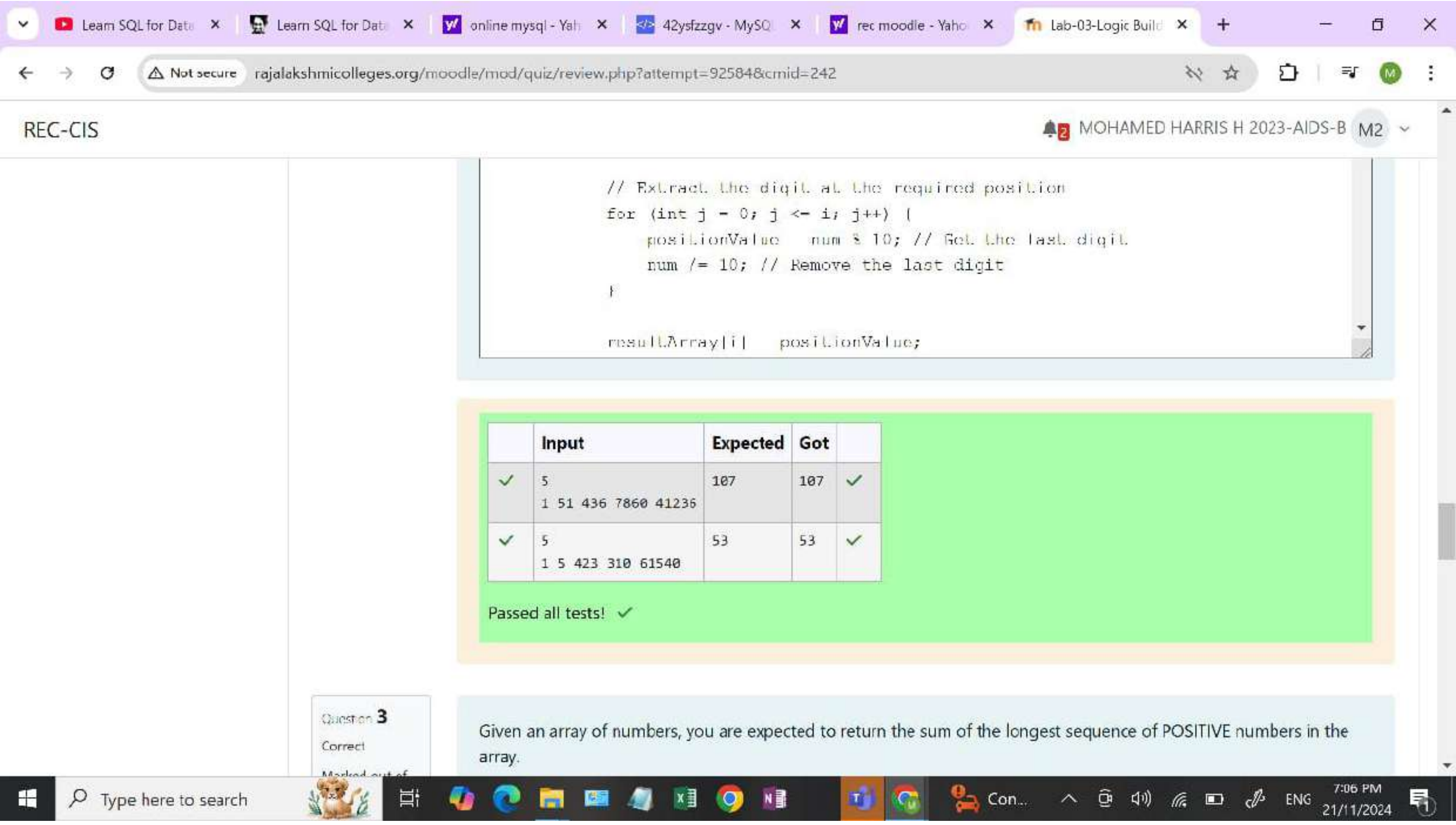
```
class BankAccount {
    private String accountNumber;
    private double balance;
```



```
        // Input: Acting power and critic's rating
        int actingPower = sc.nextInt();
        int criticsRating = sc.nextInt();

        // Determine the movie's success
        if (actingPower < 2 || criticsRating < 2) {
            System.out.println("No"); // Flop
        } else if (actingPower > 8 || criticsRating > 8) {
            System.out.println("Yes"); // Hit
        } else {
            System.out.println("Maybe"); // Average
        }
```

	Input	Expected	Got	
✓	9 5	Yes	Yes	✓
✓	1 9	No	No	✓
✓	6 4	Maybe	Maybe	✓

Passed all tests! ✓



```
        // Extract the digit at the required position
        for (int j = 0; j <= i; j++) {
            positionValue = num % 10; // Get the last digit
            num /= 10; // Remove the last digit
        }

        resultArray[i] = positionValue;
```

	Input	Expected	Got	
✓	5 1 51 436 7860 41236	107	107	✓
✓	5 1 5 423 310 61540	53	53	✓

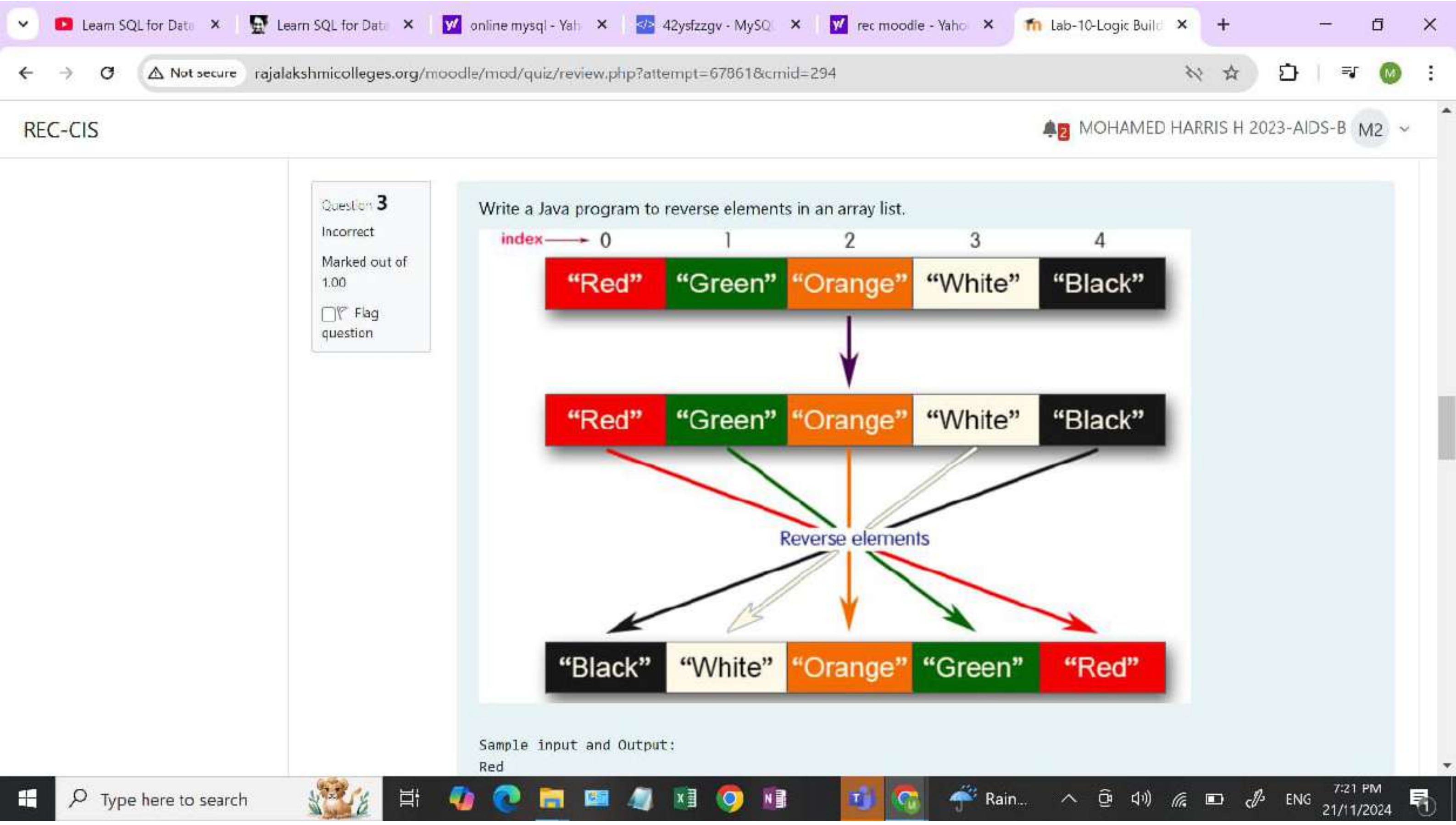
Passed all tests! ✓

Question 3

Correct

Marked out of

Given an array of numbers, you are expected to return the sum of the longest sequence of POSITIVE numbers in the array.



REC-CIS

MOHAMED HARRIS H 2023-AIDS-B M2

Question 3

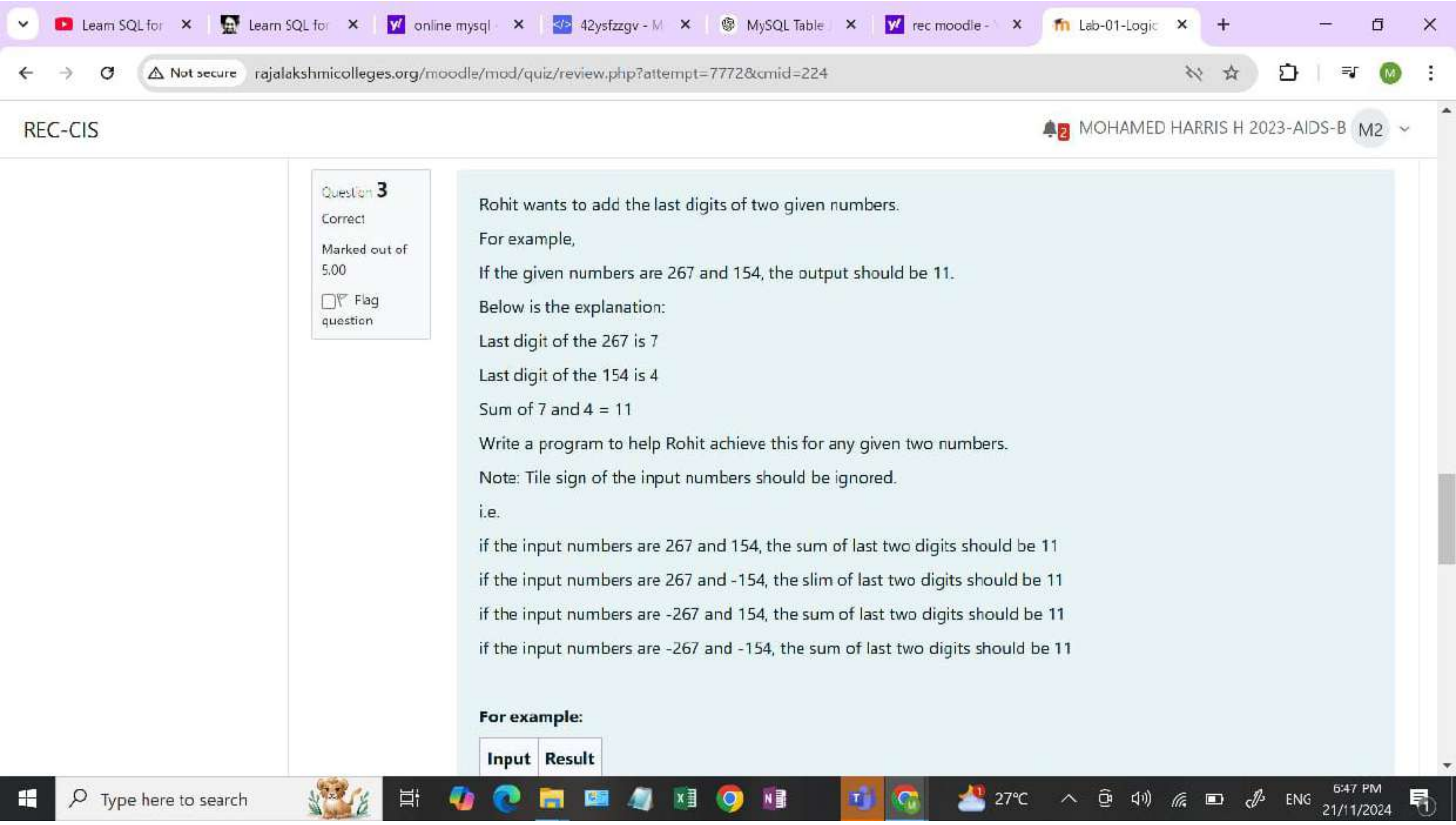
Incorrect

Marked out of 1.00

□ Flag question

Write a Java program to reverse elements in an array list.

```
Sample input and Output:
Red
```



Question 3

Correct

Marked out of 5.00

□ Flag question

Rohit wants to add the last digits of two given numbers.

For example,

If the given numbers are 267 and 154, the output should be 11.

Below is the explanation:

Last digit of the 267 is 7

Last digit of the 154 is 4

Sum of 7 and 4 = 11

Write a program to help Rohit achieve this for any given two numbers.

Note: Tile sign of the input numbers should be ignored.

i.e.

if the input numbers are 267 and 154, the sum of last two digits should be 11

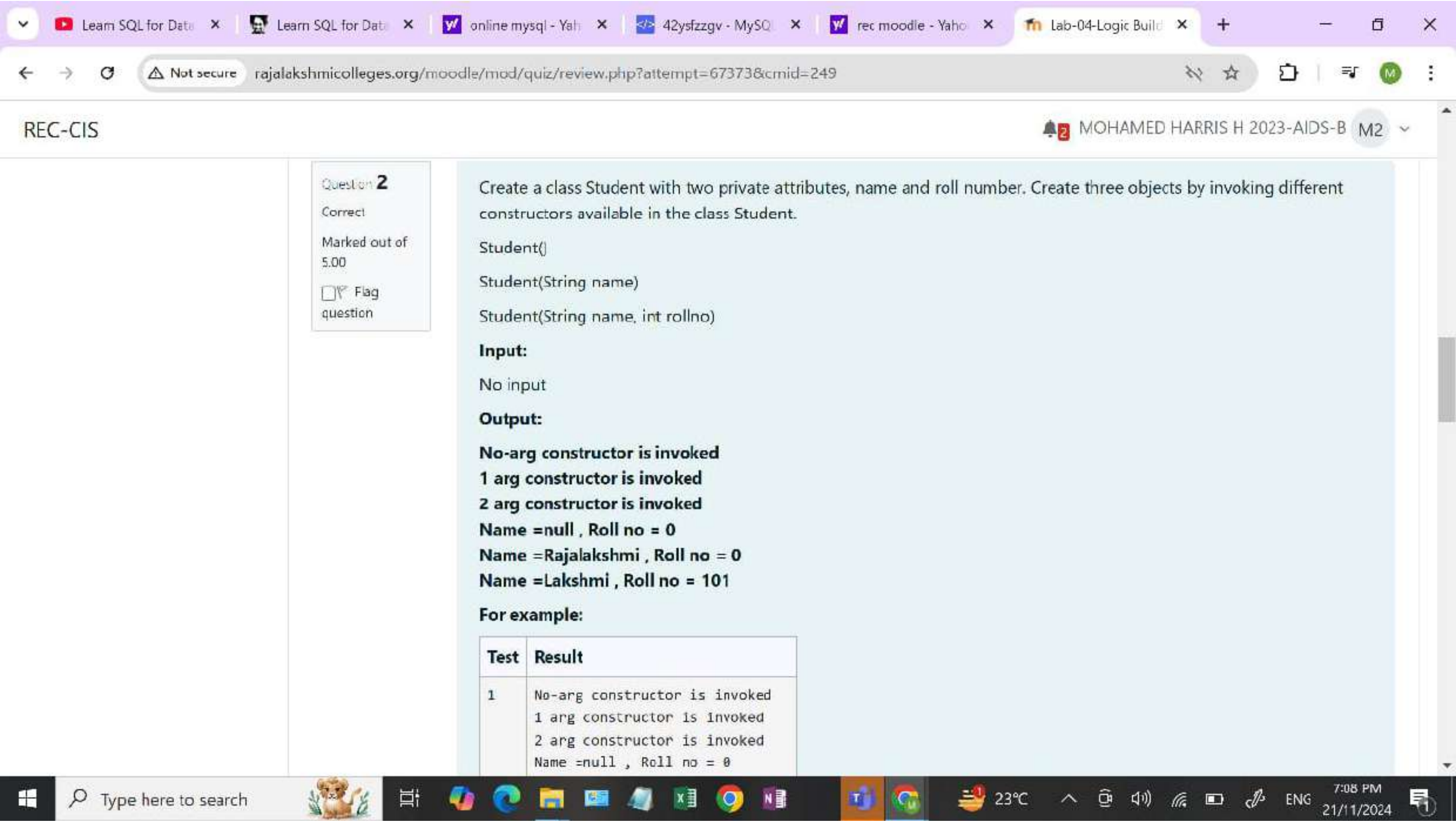
if the input numbers are 267 and -154, the slim of last two digits should be 11

if the input numbers are -267 and 154, the sum of last two digits should be 11

if the input numbers are -267 and -154, the sum of last two digits should be 11

For example:

Input	Result



Question **2**

Correct

Marked out of 5.00

□ Flag question

Create a class Student with two private attributes, name and roll number. Create three objects by invoking different constructors available in the class Student.

Student()

Student(String name)

Student(String name, int rollno)

Input:

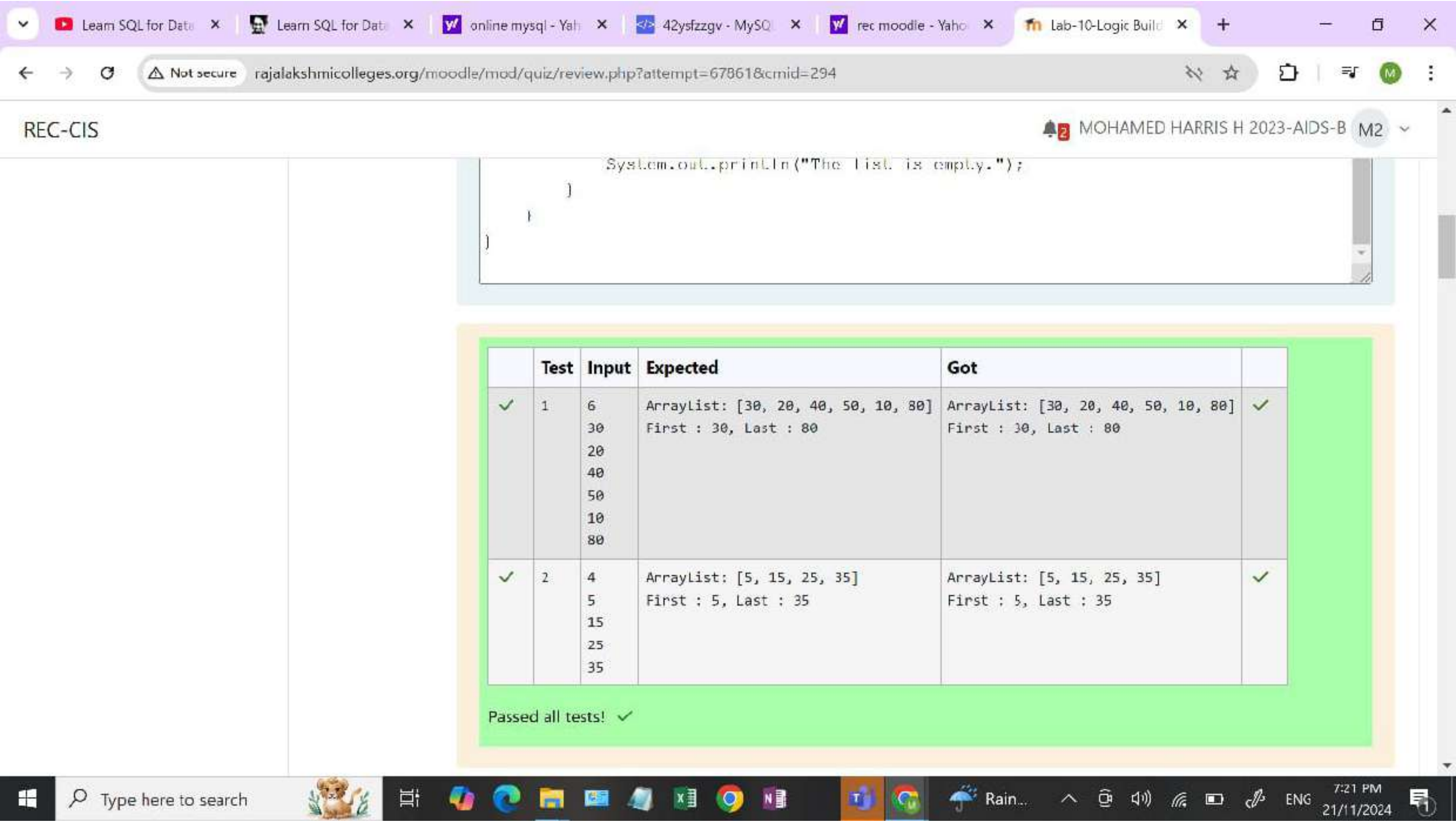
No input

Output:

No-arg constructor is invoked
1 arg constructor is invoked
2 arg constructor is invoked
Name =null , Roll no = 0
Name =Rajalakshmi , Roll no = 0
Name =Lakshmi , Roll no = 101

For example:

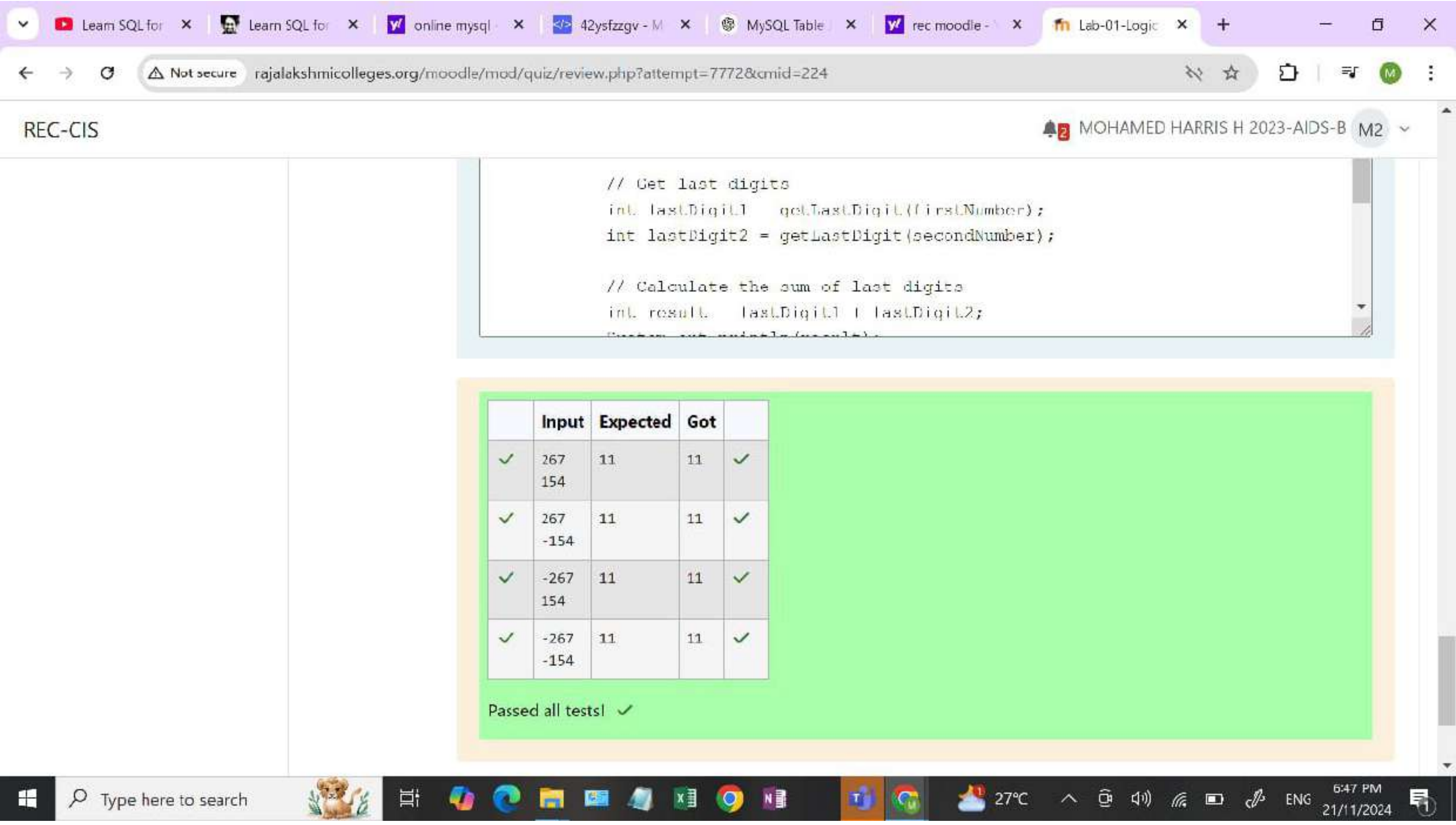
Test	Result
1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0



```
            System.out.println("The list is empty.");
        }
    }
}
```

	Test	Input	Expected	Got	
✓	1	6 30 20 40 50 10 80	ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80	ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80	✓
✓	2	4 5 15 25 35	ArrayList: [5, 15, 25, 35] First : 5, Last : 35	ArrayList: [5, 15, 25, 35] First : 5, Last : 35	✓

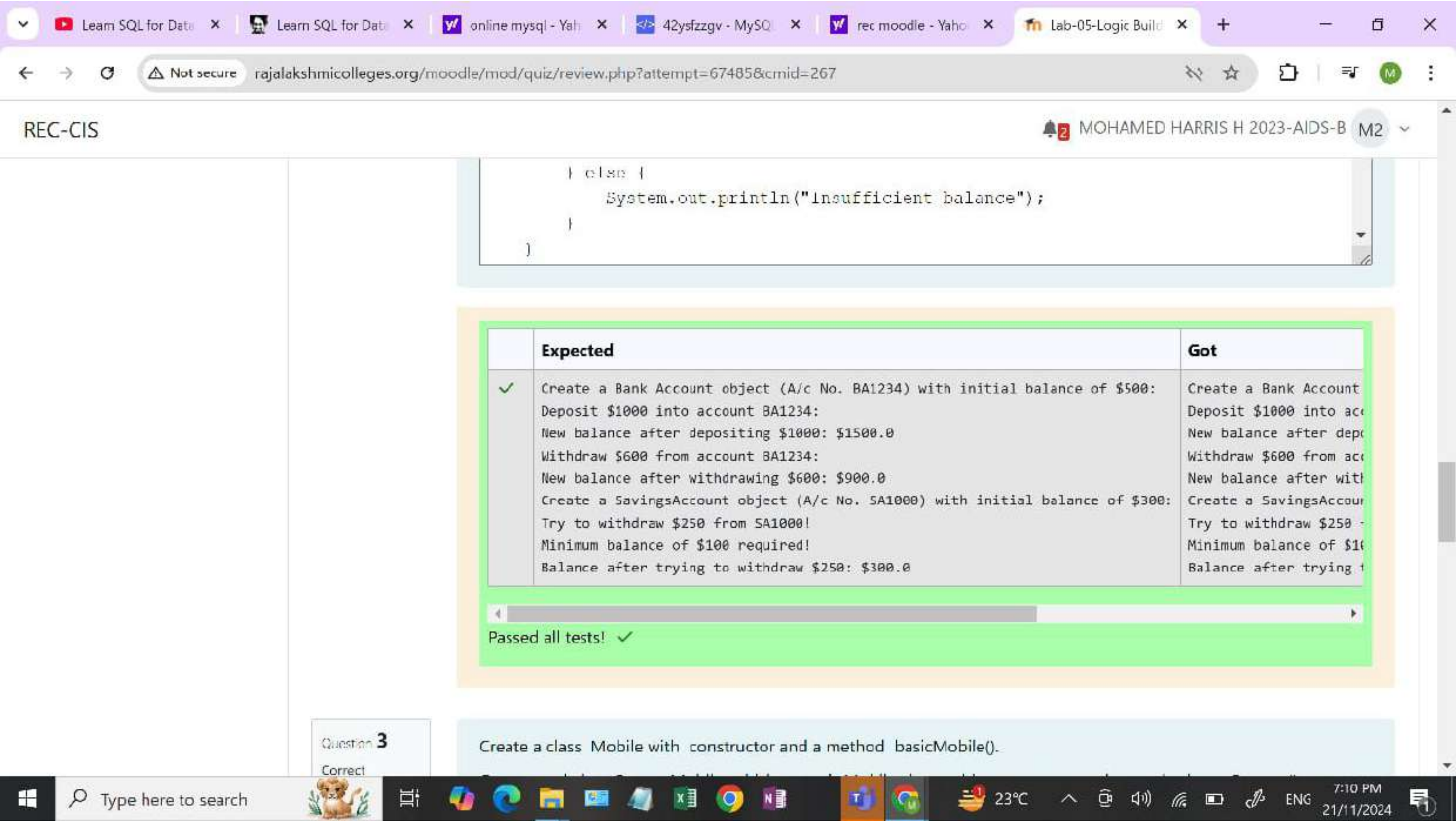
Passed all tests! ✓



```
        // Get last digits
        int lastDigit1 = getLastDigit(firstNumber);
        int lastDigit2 = getLastDigit(secondNumber);

        // Calculate the sum of last digits
        int result = lastDigit1 + lastDigit2;
        System.out.println(result);
```

	Input	Expected	Got	
✓	267 154	11	11	✓
✓	267 -154	11	11	✓
✓	-267 154	11	11	✓
✓	-267 -154	11	11	✓

Passed all tests! ✓



```
            } else {
                System.out.println("Insufficient balance");
            }
        }
```

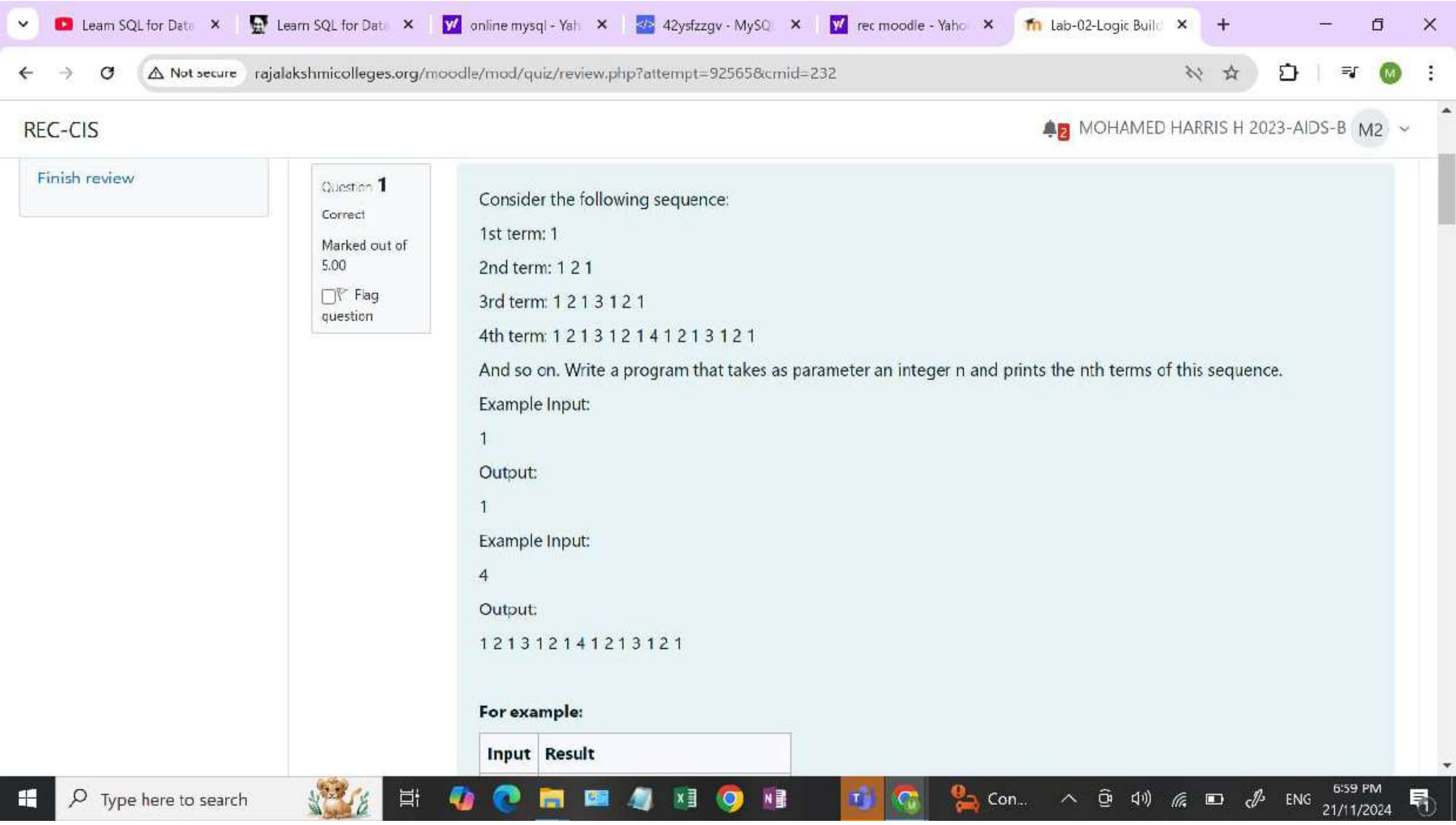
	Expected	Got
✓	Create a Bank Account object (A/c No. BA1234) with initial balance of $500: Deposit $1000 into account BA1234: New balance after depositing $1000: $1500.0 Withdraw $600 from account BA1234: New balance after withdrawing $600: $900.0 Create a SavingsAccount object (A/c No. SA1000) with initial balance of $300: Try to withdraw $250 from SA1000! Minimum balance of $100 required! Balance after trying to withdraw $250: $300.0	Create a Bank Account Deposit $1000 into acc New balance after depo Withdraw $600 from acc New balance after with Create a SavingsAccour Try to withdraw $250 - Minimum balance of $10 Balance after trying t

Passed all tests! ✓

Question 3

Correct

Create a class Mobile with constructor and a method basicMobile().



Question 1

Correct

Marked out of 5.00

□ Flag question

Consider the following sequence:

1st term: 1

2nd term: 1 2 1

3rd term: 1 2 1 3 1 2 1

4th term: 1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

And so on. Write a program that takes as parameter an integer n and prints the nth terms of this sequence.

Example Input:

1

Output:

1

Example Input:

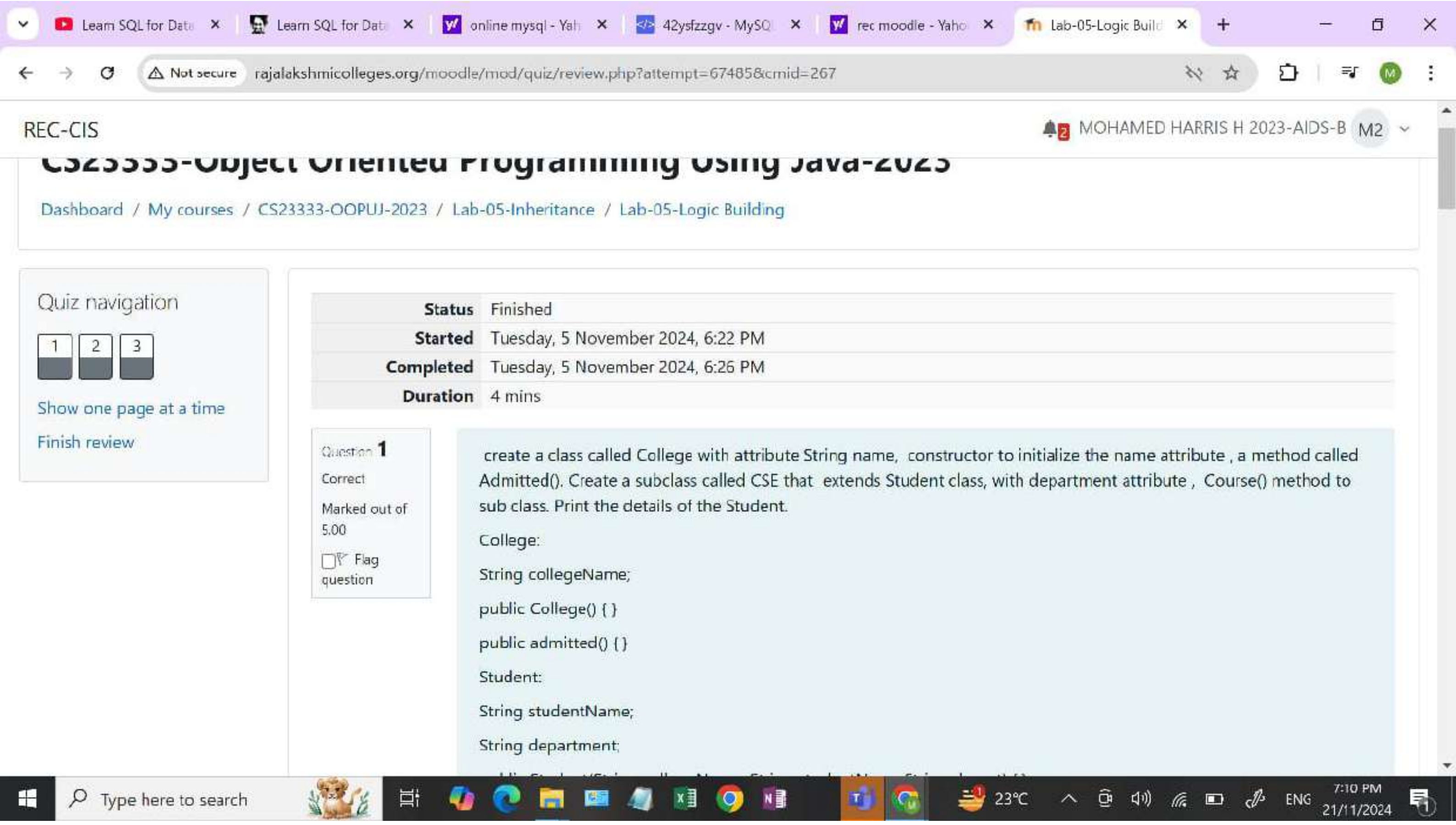
4

Output:

1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

For example:

Input	Result



CS23333-Object Oriented Programming Using Java-2023

Dashboard / My courses / CS23333-OOPUJ-2023 / Lab-05-Inheritance / Lab-05-Logic Building

Quiz navigation

1 2 3

Show one page at a time

Finish review

Status	Finished
Started	Tuesday, 5 November 2024, 6:22 PM
Completed	Tuesday, 5 November 2024, 6:26 PM
Duration	4 mins

Question **1**

Correct

Marked out of 5.00

□ Flag question

create a class called College with attribute String name, constructor to initialize the name attribute , a method called Admitted(). Create a subclass called CSE that extends Student class, with department attribute , Course() method to sub class. Print the details of the Student.

College:

String collegeName;

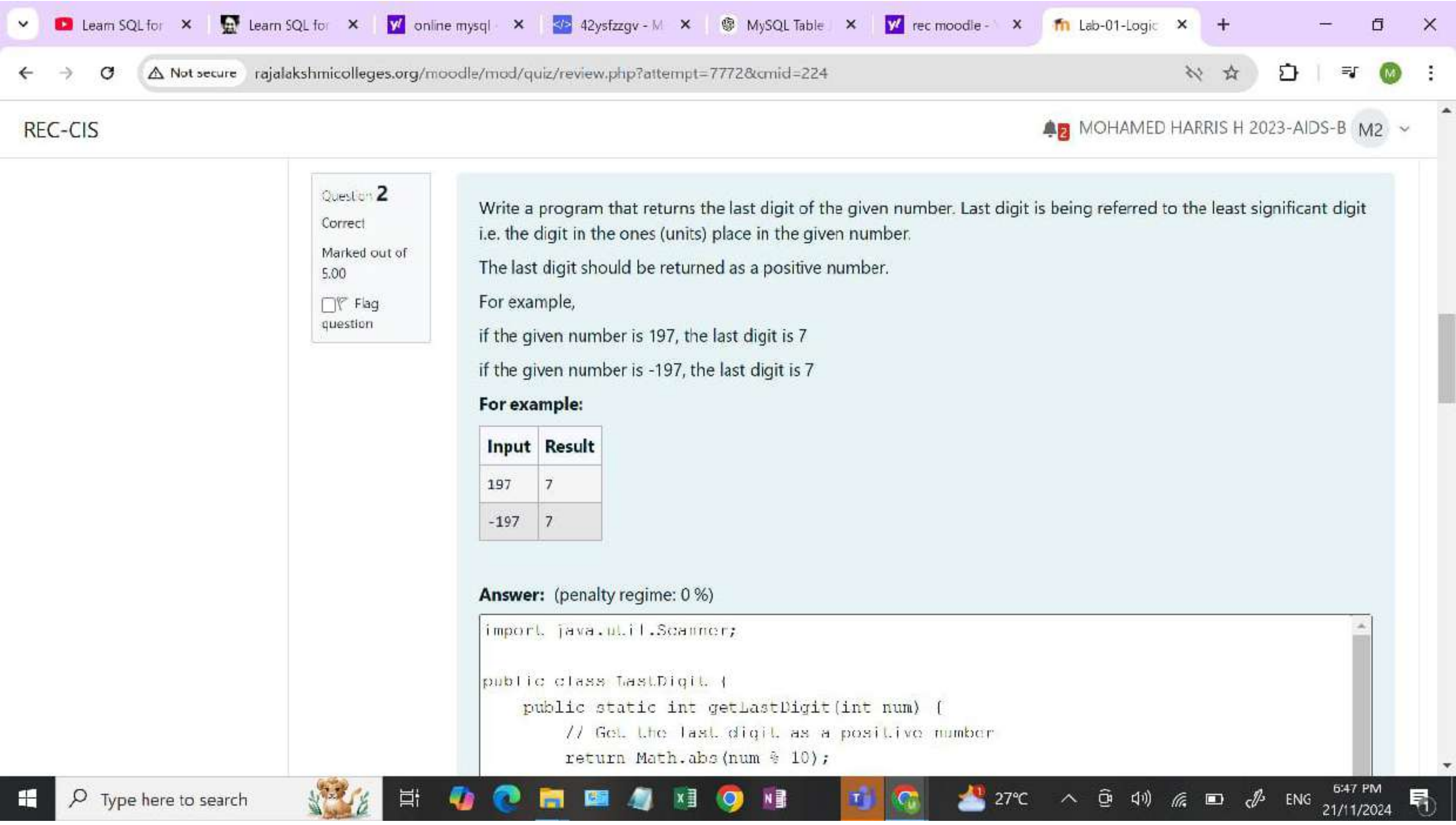
public College() { }

public admitted() { }

Student:

String studentName;

String department;



Question 2

Correct

Marked out of 5.00

□ Flag question

Write a program that returns the last digit of the given number. Last digit is being referred to the least significant digit i.e. the digit in the ones (units) place in the given number.

The last digit should be returned as a positive number.

For example,

if the given number is 197, the last digit is 7

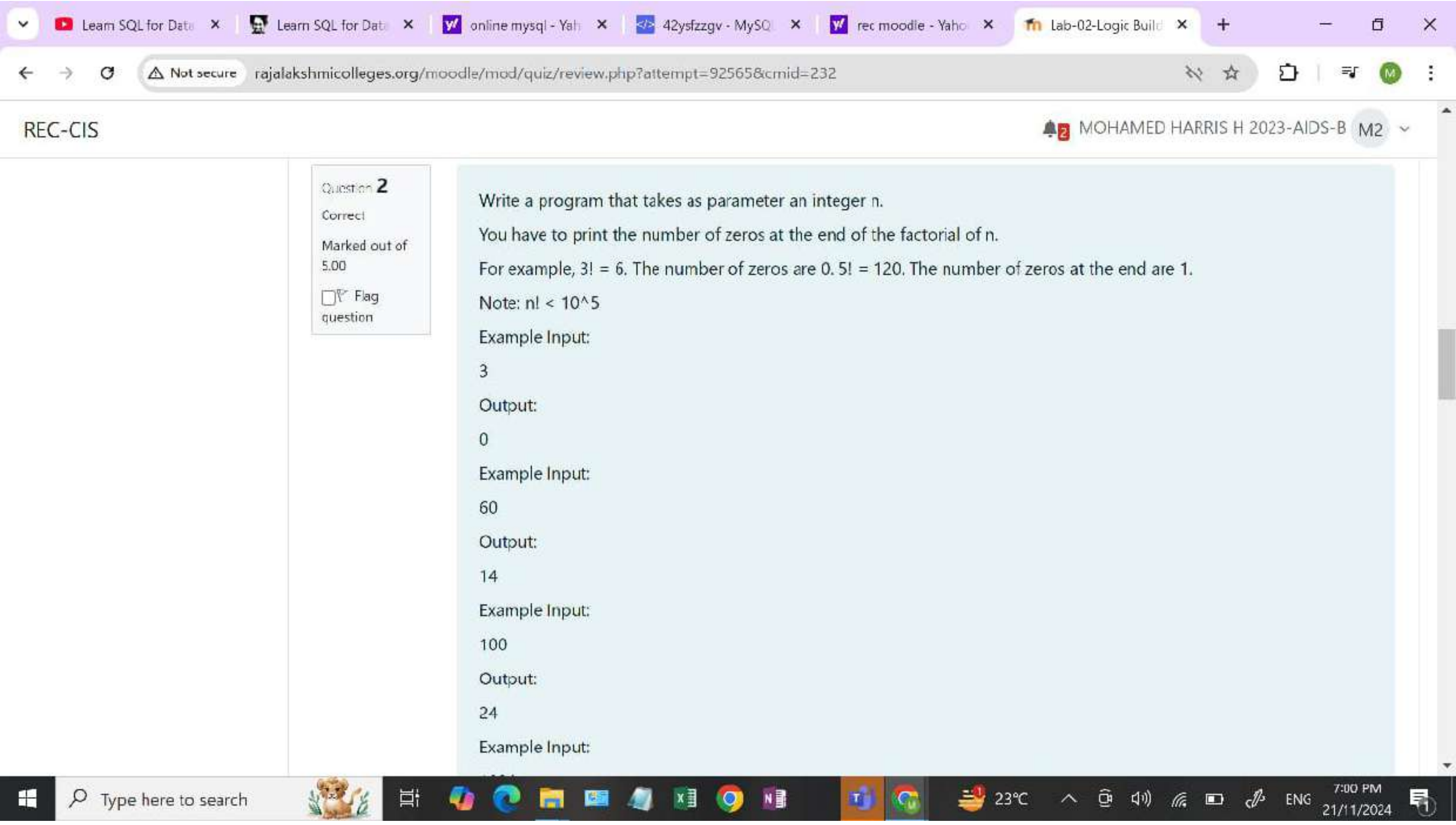
if the given number is -197, the last digit is 7

For example:

Input	Result
197	7
-197	7

Answer: (penalty regime: 0 %)

```
import java.util.Scanner;

public class LastDigit {
    public static int getLastDigit(int num) {
        // Get the last digit as a positive number
        return Math.abs(num % 10);
```



Write a program that takes as parameter an integer n.

You have to print the number of zeros at the end of the factorial of n.

For example, 3! = 6. The number of zeros are 0. 5! = 120. The number of zeros at the end are 1.

Note: n! < 10^5

Example Input:

3

Output:

0

Example Input:

60

Output:

14

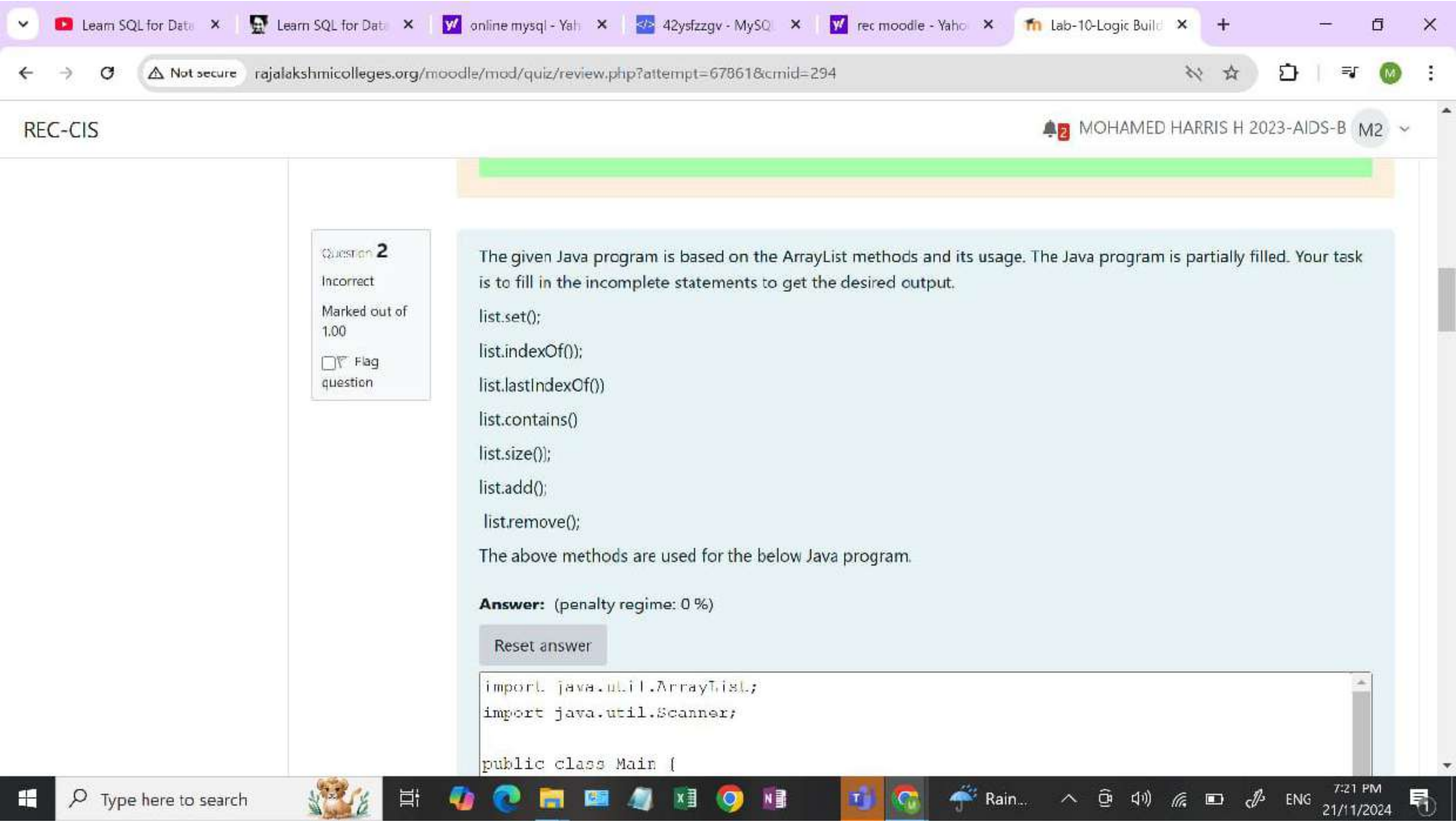
Example Input:

100

Output:

24

Example Input:



Question **2**

Incorrect

Marked out of 1.00

□ Flag question

The given Java program is based on the ArrayList methods and its usage. The Java program is partially filled. Your task is to fill in the incomplete statements to get the desired output.

list.set();

list.indexOf());

list.lastIndexOf())

list.contains()

list.size());

list.add();

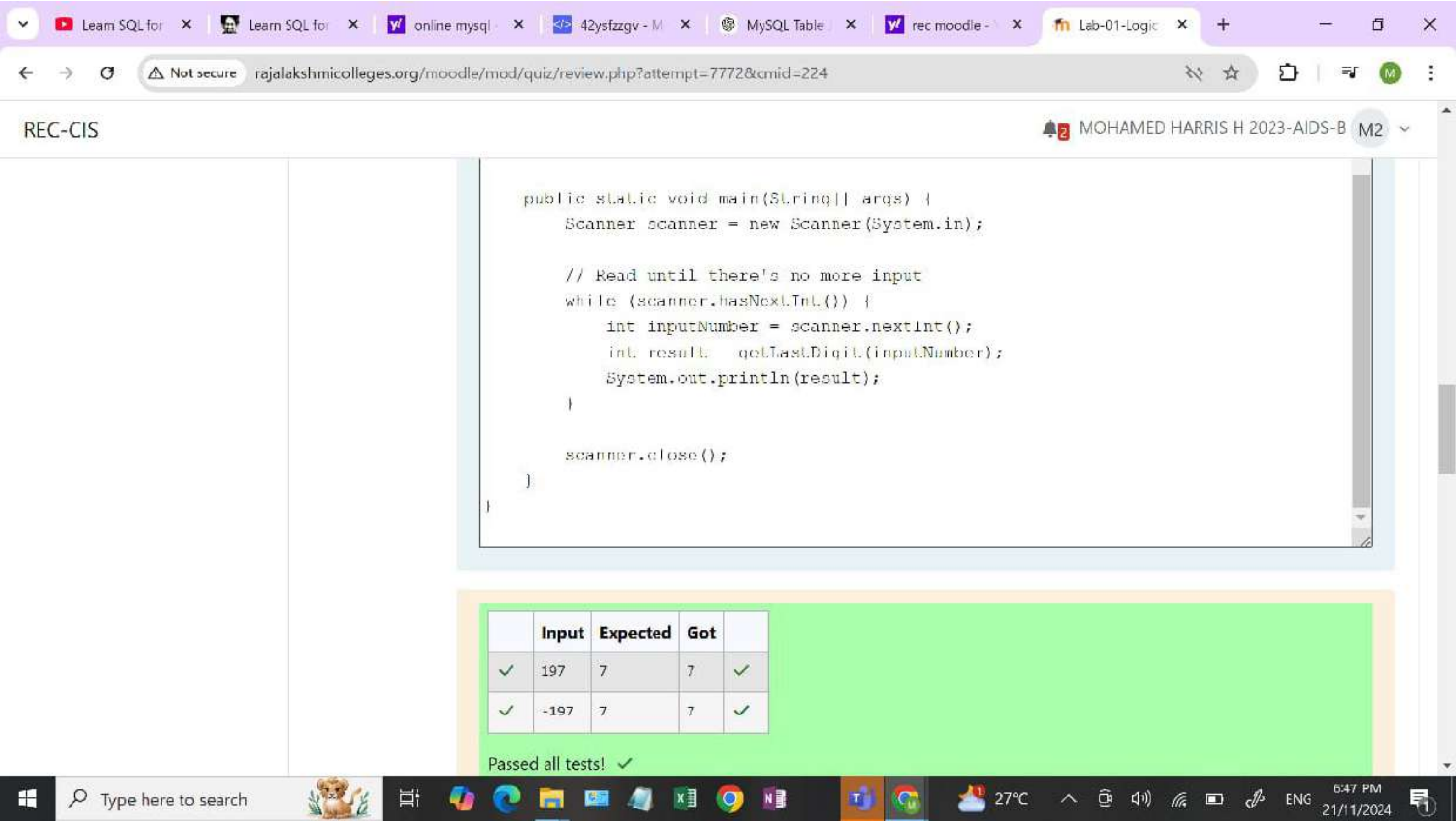
list.remove();

The above methods are used for the below Java program.

Answer: (penalty regime: 0 %)

Reset answer

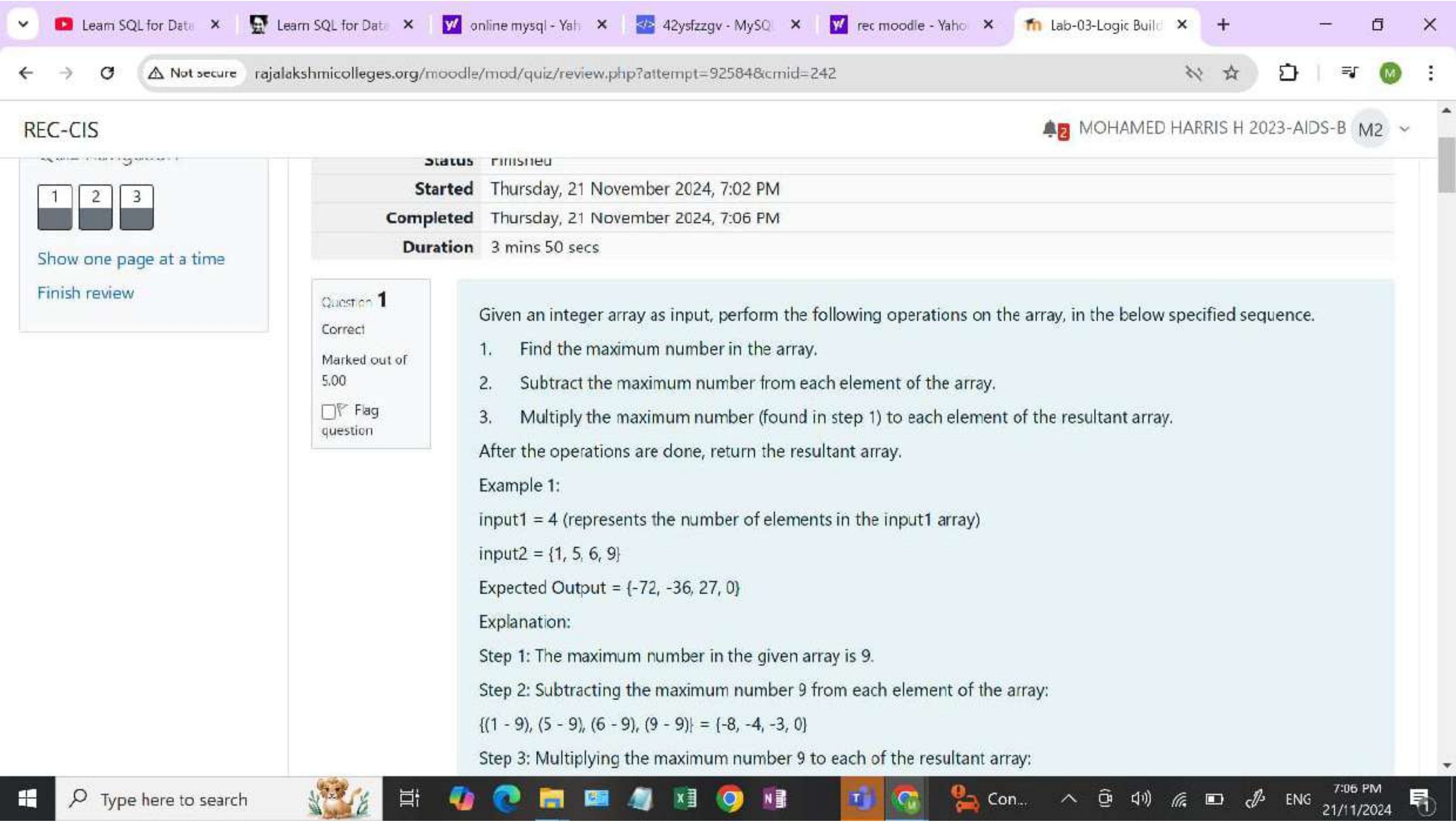
```
import java.util.ArrayList;
import java.util.Scanner;

public class Main {
```



```
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read until there's no more input
        while (scanner.hasNextInt()) {
            int inputNumber = scanner.nextInt();
            int result = getLastDigit(inputNumber);
            System.out.println(result);
        }

        scanner.close();
    }
}
```

	Input	Expected	Got	
✓	197	7	7	✓
✓	-197	7	7	✓

Passed all tests! ✓



Status	Finished
Started	Thursday, 21 November 2024, 7:02 PM
Completed	Thursday, 21 November 2024, 7:06 PM
Duration	3 mins 50 secs

Question 1

Correct

Marked out of 5.00

□ Flag question

Given an integer array as input, perform the following operations on the array, in the below specified sequence.

1. Find the maximum number in the array.
2. Subtract the maximum number from each element of the array.
3. Multiply the maximum number (found in step 1) to each element of the resultant array.

After the operations are done, return the resultant array.

Example 1:

input1 = 4 (represents the number of elements in the input1 array)

input2 = {1, 5, 6, 9}

Expected Output = {-72, -36, 27, 0}

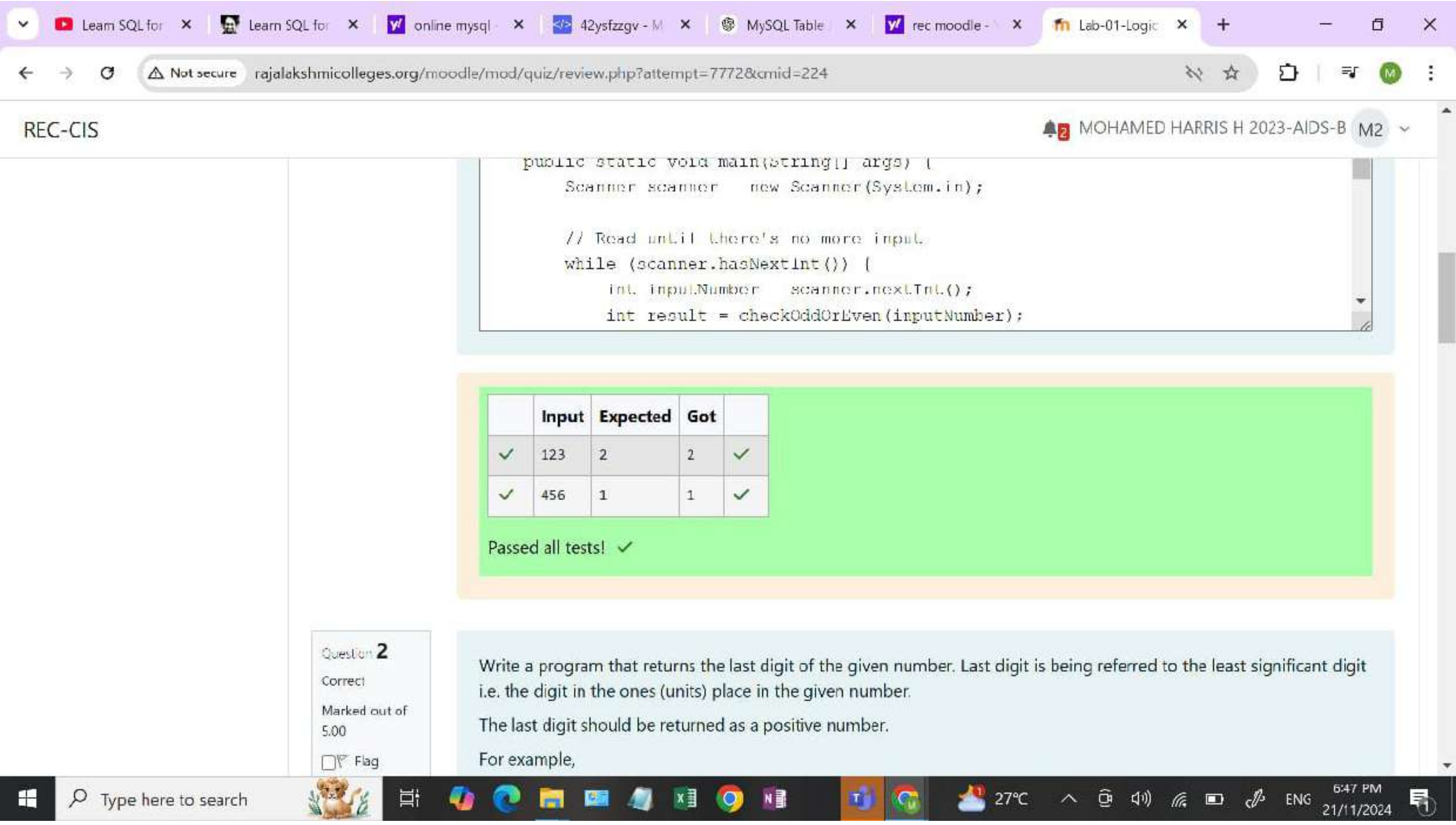
Explanation:

Step 1: The maximum number in the given array is 9.

Step 2: Subtracting the maximum number 9 from each element of the array:

{(1 - 9), (5 - 9), (6 - 9), (9 - 9)} = {-8, -4, -3, 0}

Step 3: Multiplying the maximum number 9 to each of the resultant array:



```
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read until there's no more input
        while (scanner.hasNextInt()) {
            int inputNumber = scanner.nextInt();
            int result = checkOddOrEven(inputNumber);
```

	Input	Expected	Got	
✓	123	2	2	✓
✓	456	1	1	✓

Passed all tests! ✓

Question **2**

Correct

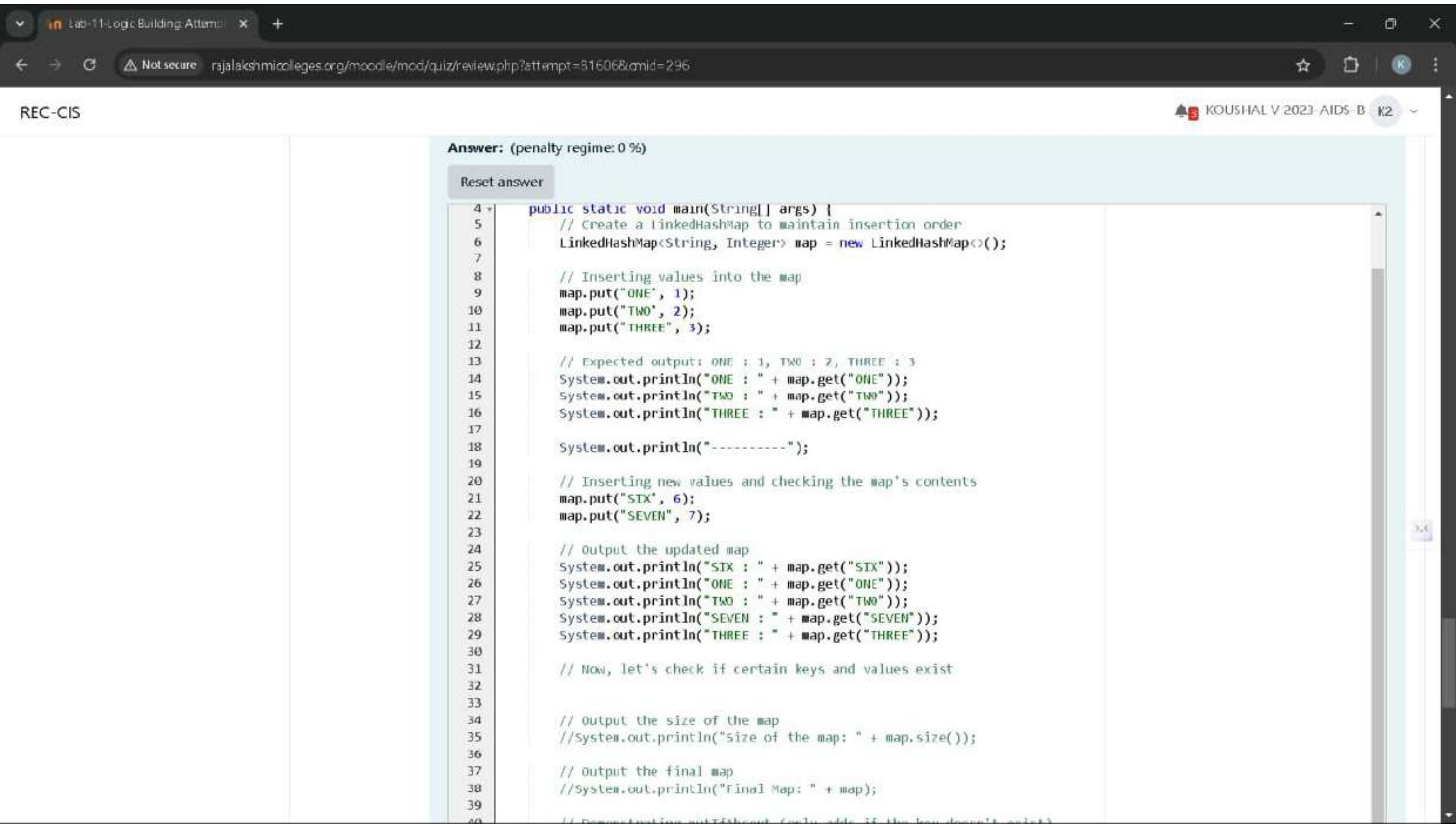
Marked out of 5.00

□ Flag

Write a program that returns the last digit of the given number. Last digit is being referred to the least significant digit i.e. the digit in the ones (units) place in the given number.

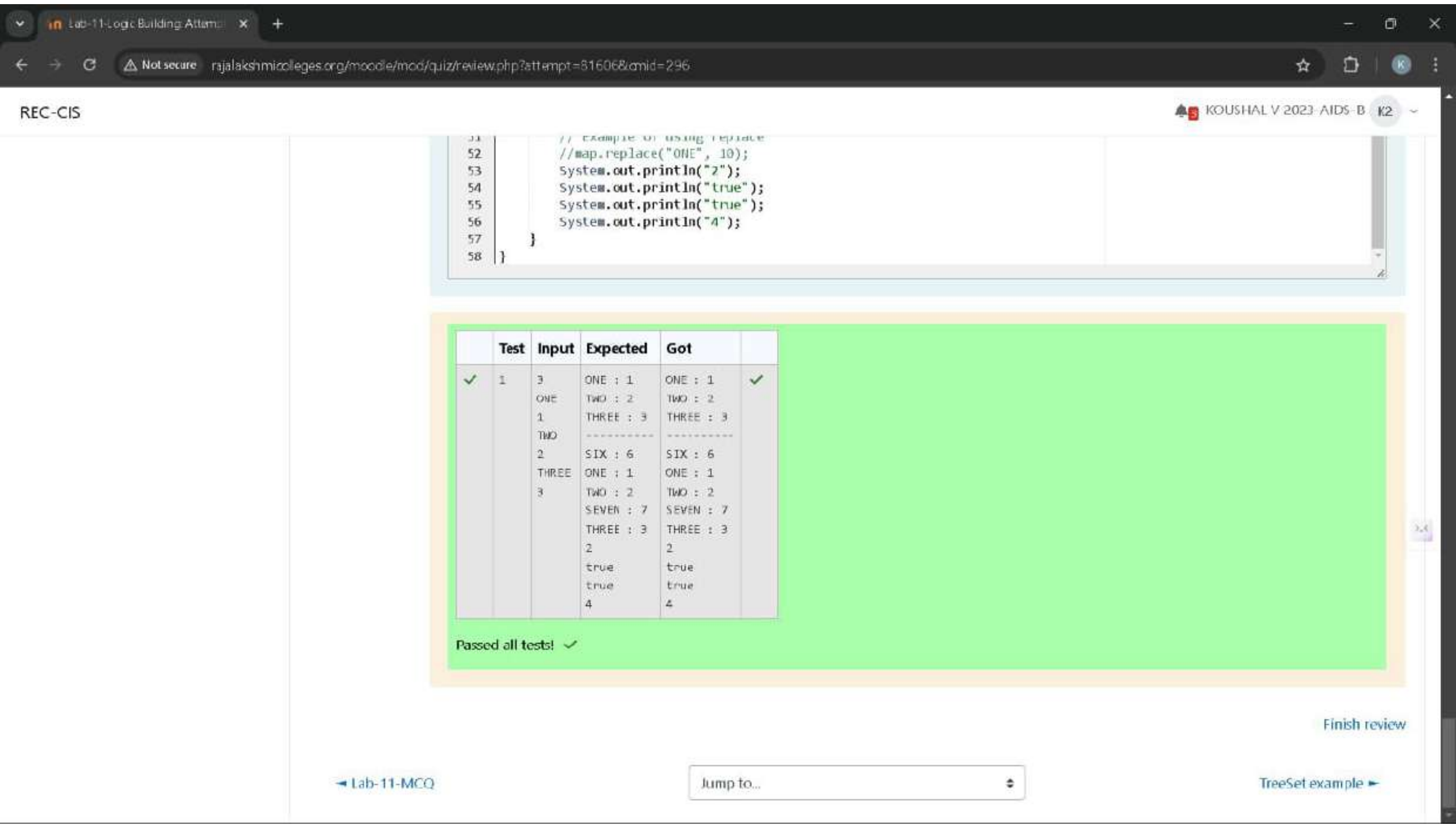
The last digit should be returned as a positive number.

For example,


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

Answer: (penalty regime: 0 %)

```
    public static void main(String[] args) {
        // Create a LinkedHashMap to maintain insertion order
        LinkedHashMap<String, Integer> map = new LinkedHashMap<>();

        // Inserting values into the map
        map.put("ONE", 1);
        map.put("TWO", 2);
        map.put("THREE", 3);

        // Expected output: ONE : 1, TWO : 2, THREE : 3
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("THREE : " + map.get("THREE"));

        System.out.println("----------");

        // Inserting new values and checking the map's contents
        map.put("SIX", 6);
        map.put("SEVEN", 7);

        // Output the updated map
        System.out.println("SIX : " + map.get("SIX"));
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("SEVEN : " + map.get("SEVEN"));
        System.out.println("THREE : " + map.get("THREE"));

        // Now, let's check if certain keys and values exist


        // Output the size of the map
        //System.out.println("Size of the map: " + map.size());

        // Output the final map
        //System.out.println("Final Map: " + map);

        // Demonstrating putIfAbsent (only adds if the key doesn't exist)
```

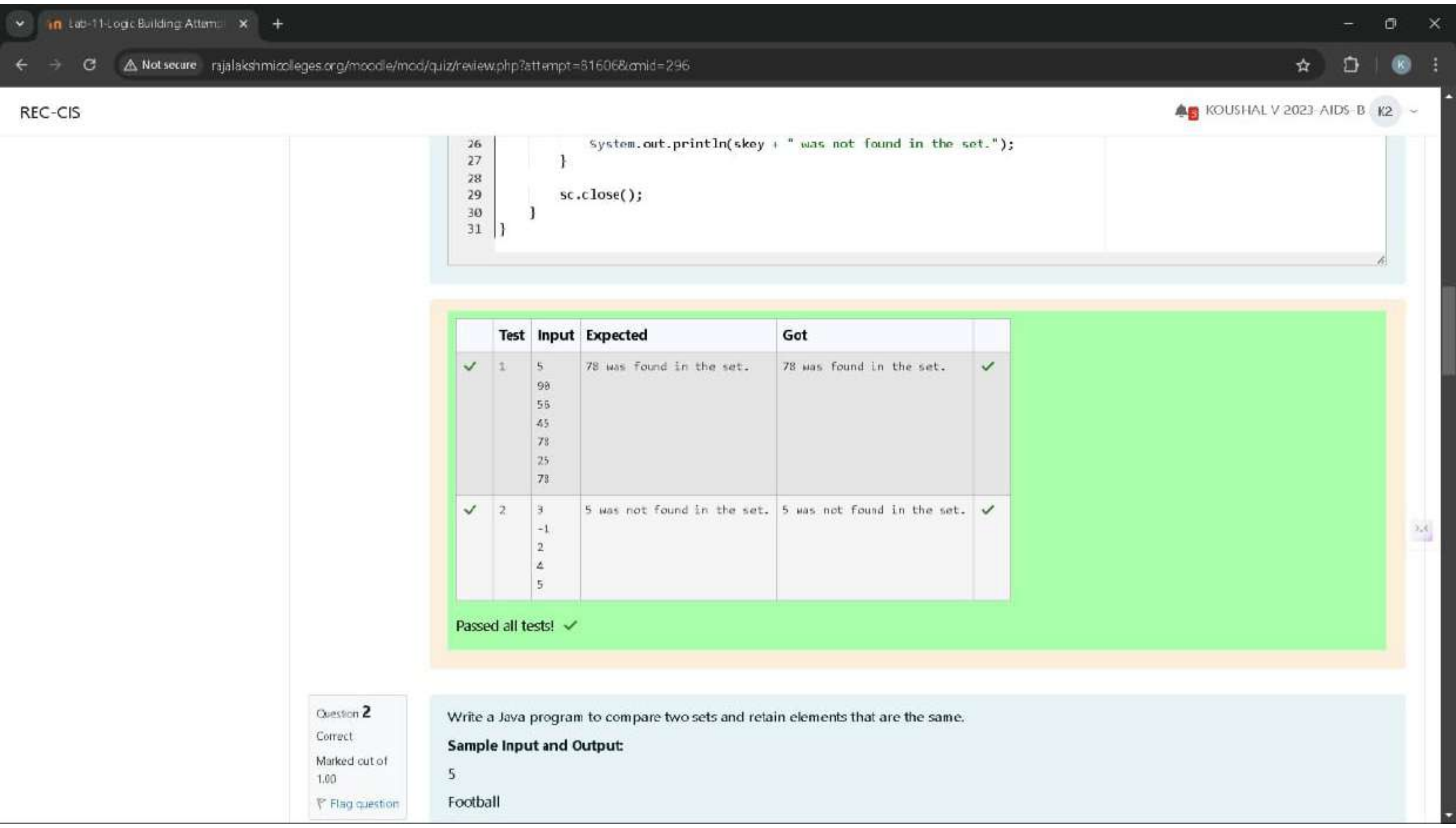

Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

```
        // Example of using replace
        //map.replace("ONE", 10);
        System.out.println("2");
        System.out.println("true");
        System.out.println("true");
        System.out.println("4");
    }
}
```

	Test	Input	Expected	Got	
✓	1	3 ONE 1 TWO 2 THREE 3	ONE : 1 TWO : 2 THREE : 3 ---------- SIX : 6 ONE : 1 TWO : 2 SEVEN : 7 THREE : 3 2 true true 4	ONE : 1 TWO : 2 THREE : 3 ---------- SIX : 6 ONE : 1 TWO : 2 SEVEN : 7 THREE : 3 2 true true 4	✓

Passed all tests! ✓

Finish review
◄ Lab-11-MCQ
Jump to...
TreeSet example ►


Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

```
            System.out.println(skey + " was not found in the set.");
        }

        sc.close();
    }
}
```

	Test	Input	Expected	Got	
✓	1	5 90 56 45 78 25 78	78 was found in the set.	78 was found in the set.	✓
✓	2	3 -1 2 4 5	5 was not found in the set.	5 was not found in the set.	✓

Passed all tests! ✓

Question 2

Correct

Marked out of 1.00

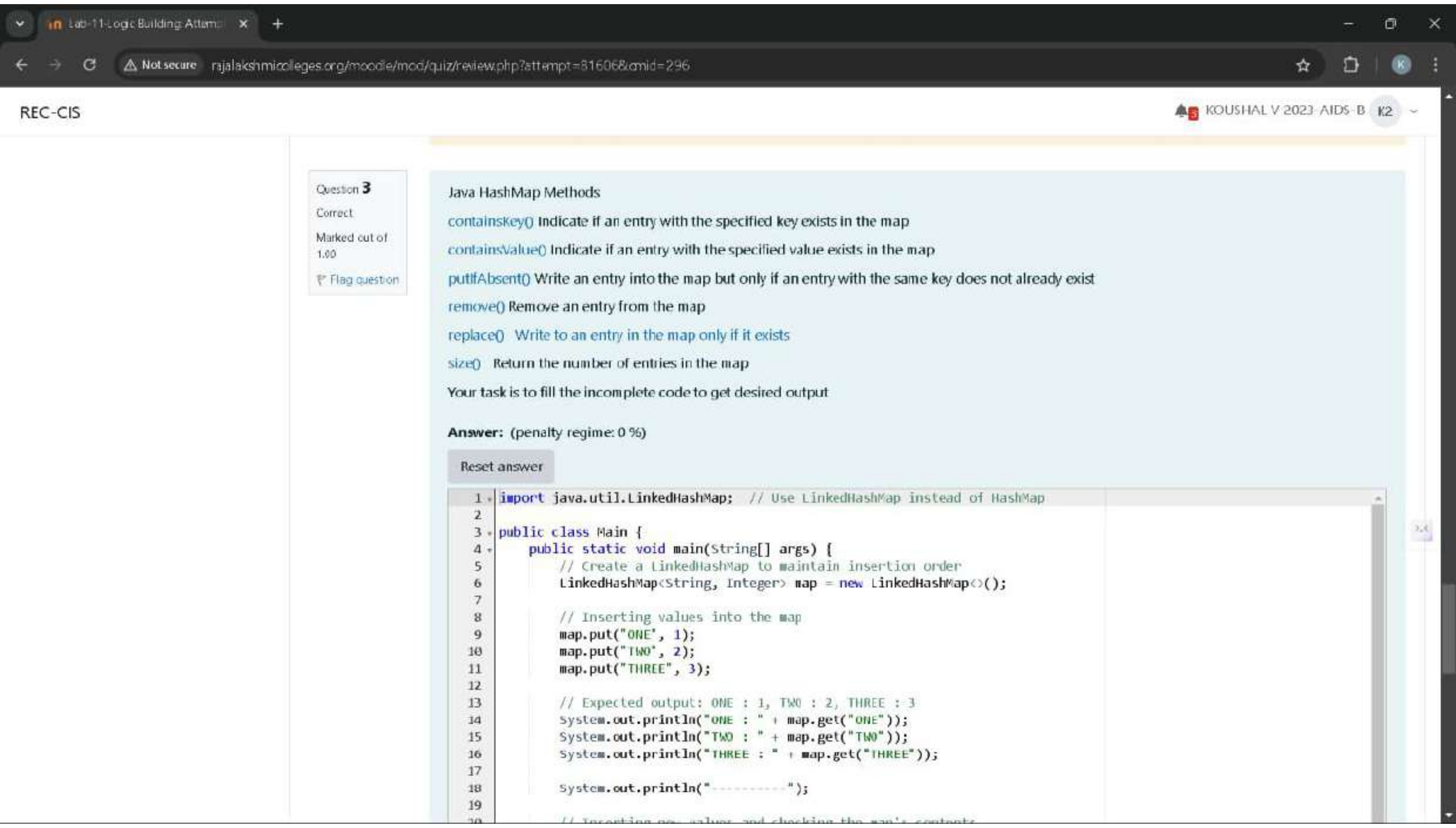
Flag question

Write a Java program to compare two sets and retain elements that are the same.

Sample Input and Output:

5

Football


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Reset answer

Question 3

Correct

Marked out of 1.00

Flag question

Java HashMap Methods

containsKey() Indicate if an entry with the specified key exists in the map

containsValue() Indicate if an entry with the specified value exists in the map

putIfAbsent() Write an entry into the map but only if an entry with the same key does not already exist

remove() Remove an entry from the map

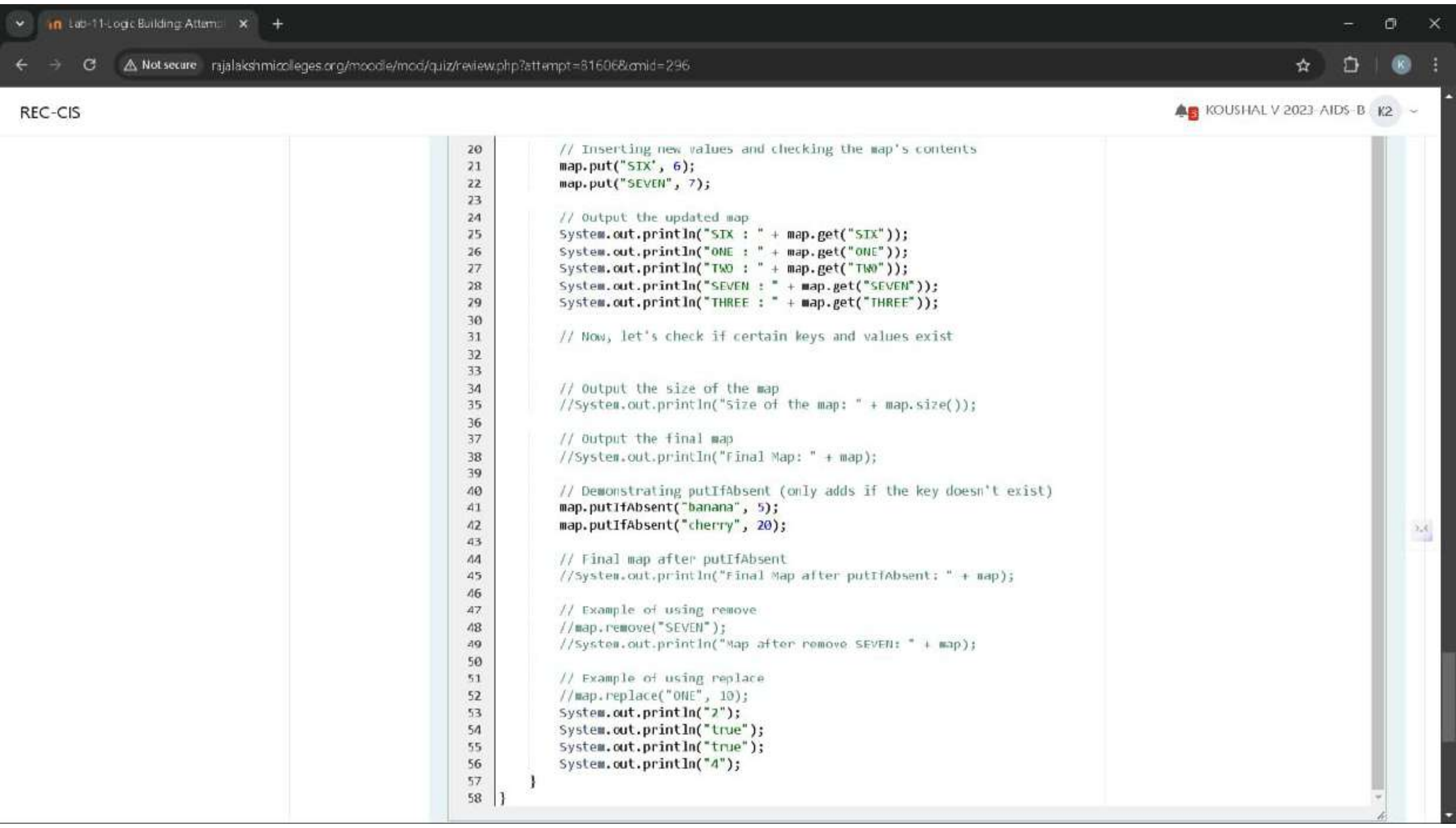
replace() Write to an entry in the map only if it exists

size() Return the number of entries in the map

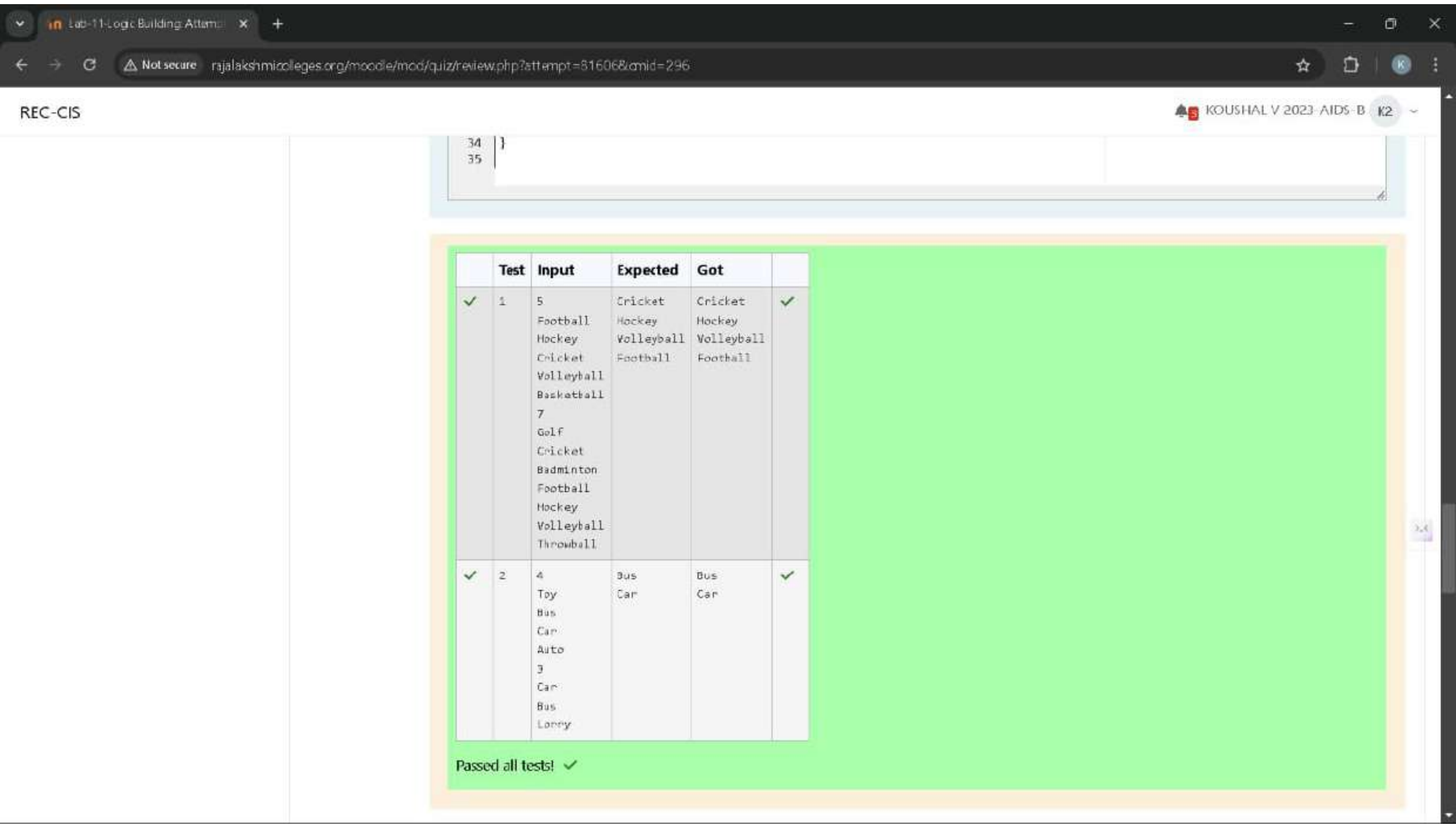
Your task is to fill the incomplete code to get desired output

Answer: (penalty regime: 0 %)

```
import java.util.LinkedHashMap;  // Use LinkedHashMap instead of HashMap

public class Main {
    public static void main(String[] args) {
        // Create a LinkedHashMap to maintain insertion order
        LinkedHashMap<String, Integer> map = new LinkedHashMap<>();

        // Inserting values into the map
        map.put("ONE", 1);
        map.put("TWO", 2);
        map.put("THREE", 3);

        // Expected output: ONE : 1, TWO : 2, THREE : 3
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("THREE : " + map.get("THREE"));

        System.out.println("----------");

        // Inserting new values and checking the map's contents
```


Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

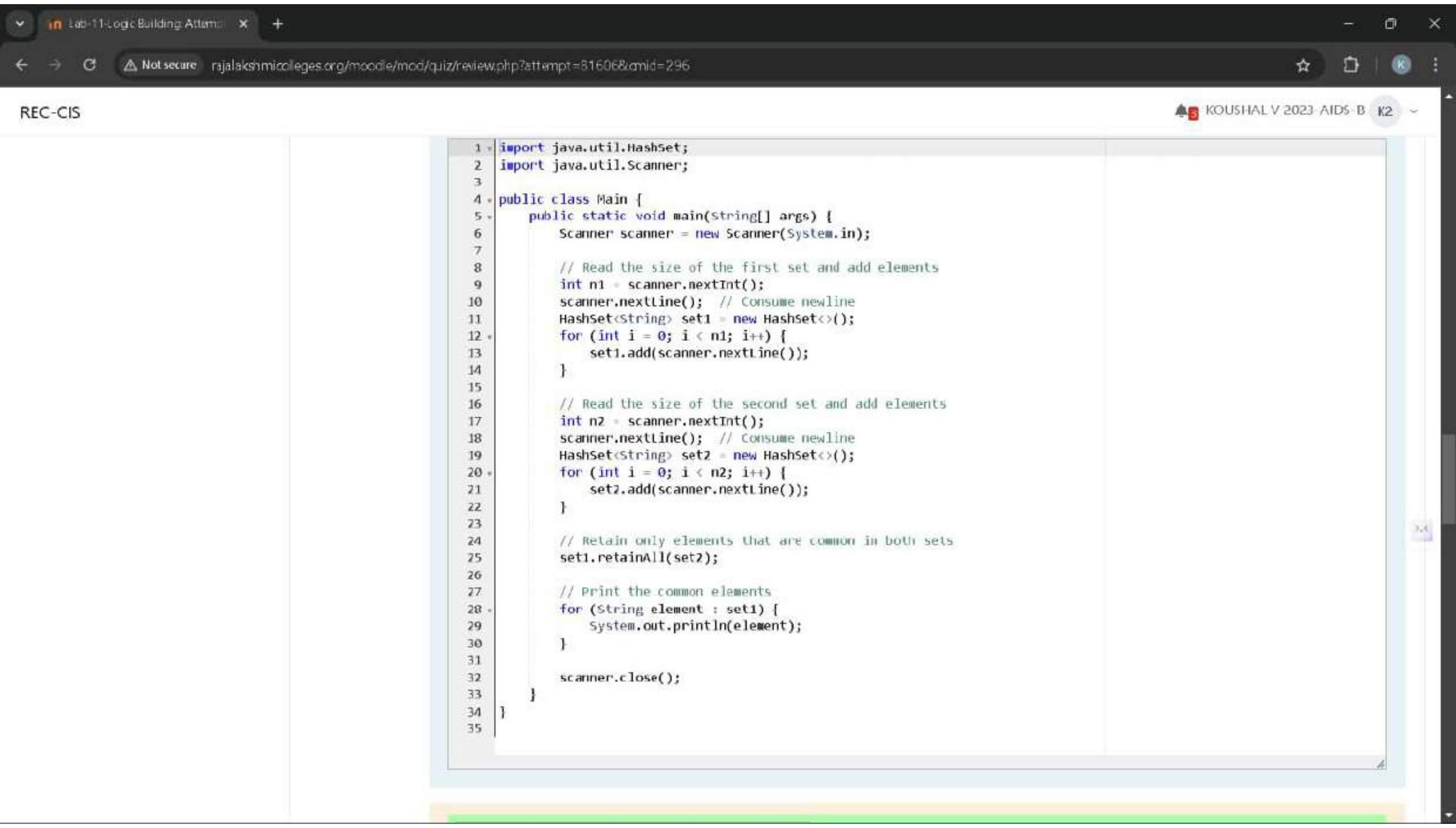
```
        // Inserting new values and checking the map's contents
        map.put("SIX', 6);
        map.put("SEVEN", 7);

        // Output the updated map
        System.out.println("SIX : " + map.get("SIX"));
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("SEVEN : " + map.get("SEVEN"));
        System.out.println("THREE : " + map.get("THREE"));

        // Now, let's check if certain keys and values exist


        // Output the size of the map
        //System.out.println("Size of the map: " + map.size());

        // Output the final map
        //System.out.println("Final Map: " + map);

        // Demonstrating putIfAbsent (only adds if the key doesn't exist)
        map.putIfAbsent("banana", 5);
        map.putIfAbsent("cherry", 20);

        // Final map after putIfAbsent
        //System.out.println("Final Map after putIfAbsent: " + map);

        // Example of using remove
        //map.remove("SEVEN");
        //System.out.println("Map after remove SEVEN: " + map);

        // Example of using replace
        //map.replace("ONE", 10);
        System.out.println("2");
        System.out.println("true");
        System.out.println("true");
        System.out.println("4");
    }
}
```


Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

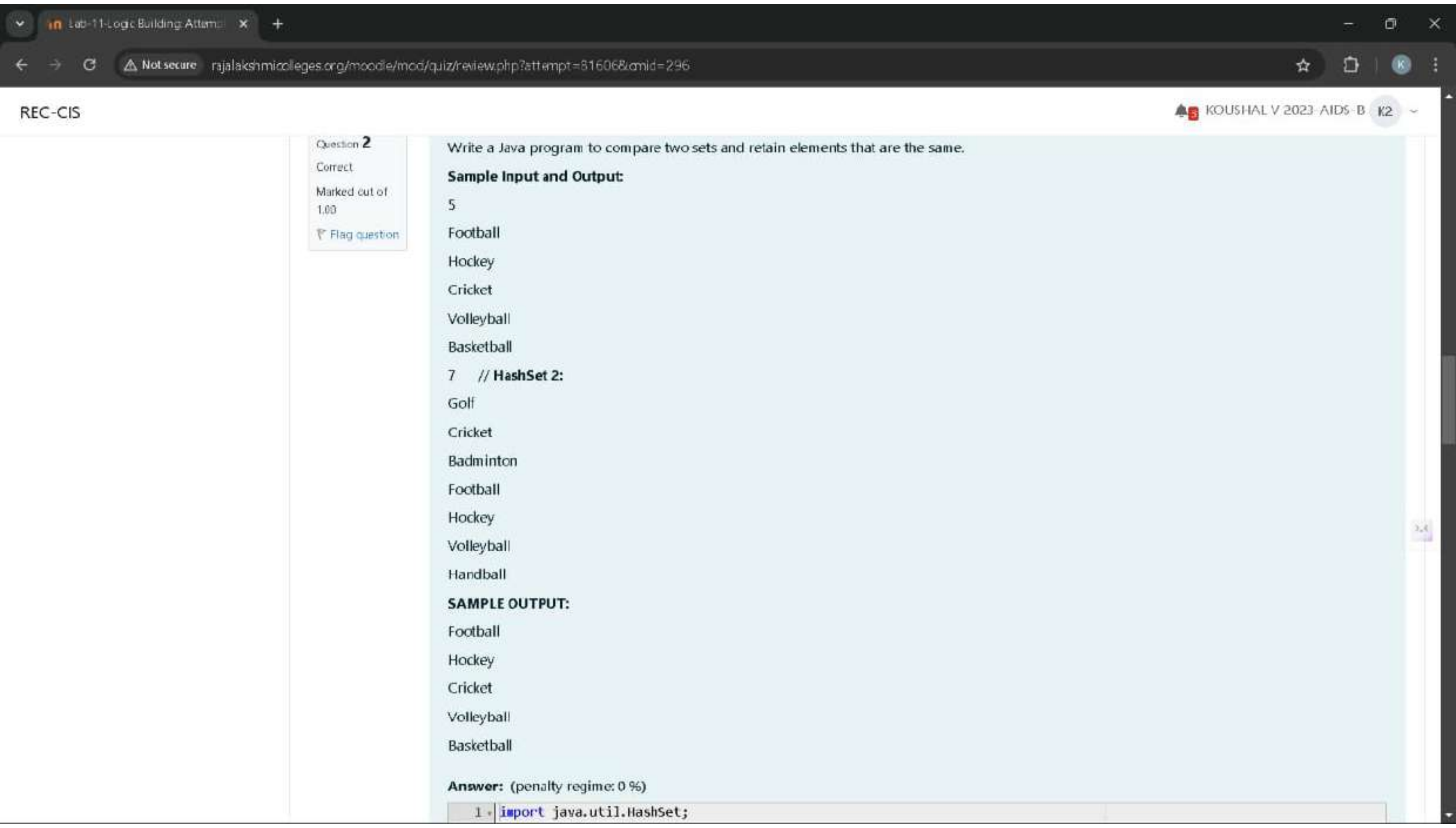
```
}
```

	Test	Input	Expected	Got	
✓	1	5 Football Hockey Cricket Volleyball Basketball 7 Golf Cricket Badminton Football Hockey Volleyball Throwball	Cricket Hockey Volleyball Football	Cricket Hockey Volleyball Football	✓
✓	2	4 Toy Bus Car Auto 3 Car Bus Lorry	Bus Car	Bus Car	✓

Passed all tests! ✓


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

```java
import java.util.HashSet;
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read the size of the first set and add elements
        int n1 = scanner.nextInt();
        scanner.nextLine();  // Consume newline
        HashSet<String> set1 = new HashSet<>();
        for (int i = 0; i < n1; i++) {
            set1.add(scanner.nextLine());
        }

        // Read the size of the second set and add elements
        int n2 = scanner.nextInt();
        scanner.nextLine();  // Consume newline
        HashSet<String> set2 = new HashSet<>();
        for (int i = 0; i < n2; i++) {
            set2.add(scanner.nextLine());
        }

        // Retain only elements that are common in both sets
        set1.retainAll(set2);

        // Print the common elements
        for (String element : set1) {
            System.out.println(element);
        }

        scanner.close();
    }
}

```


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
KZ

Question 2

Correct

Marked out of 1.00

Flag question

Write a Java program to compare two sets and retain elements that are the same.

Sample Input and Output:

5

Football

Hockey

Cricket

Volleyball

Basketball

7 // **HashSet 2:**

Golf

Cricket

Badminton

Football

Hockey

Volleyball

Handball

SAMPLE OUTPUT:

Football

Hockey

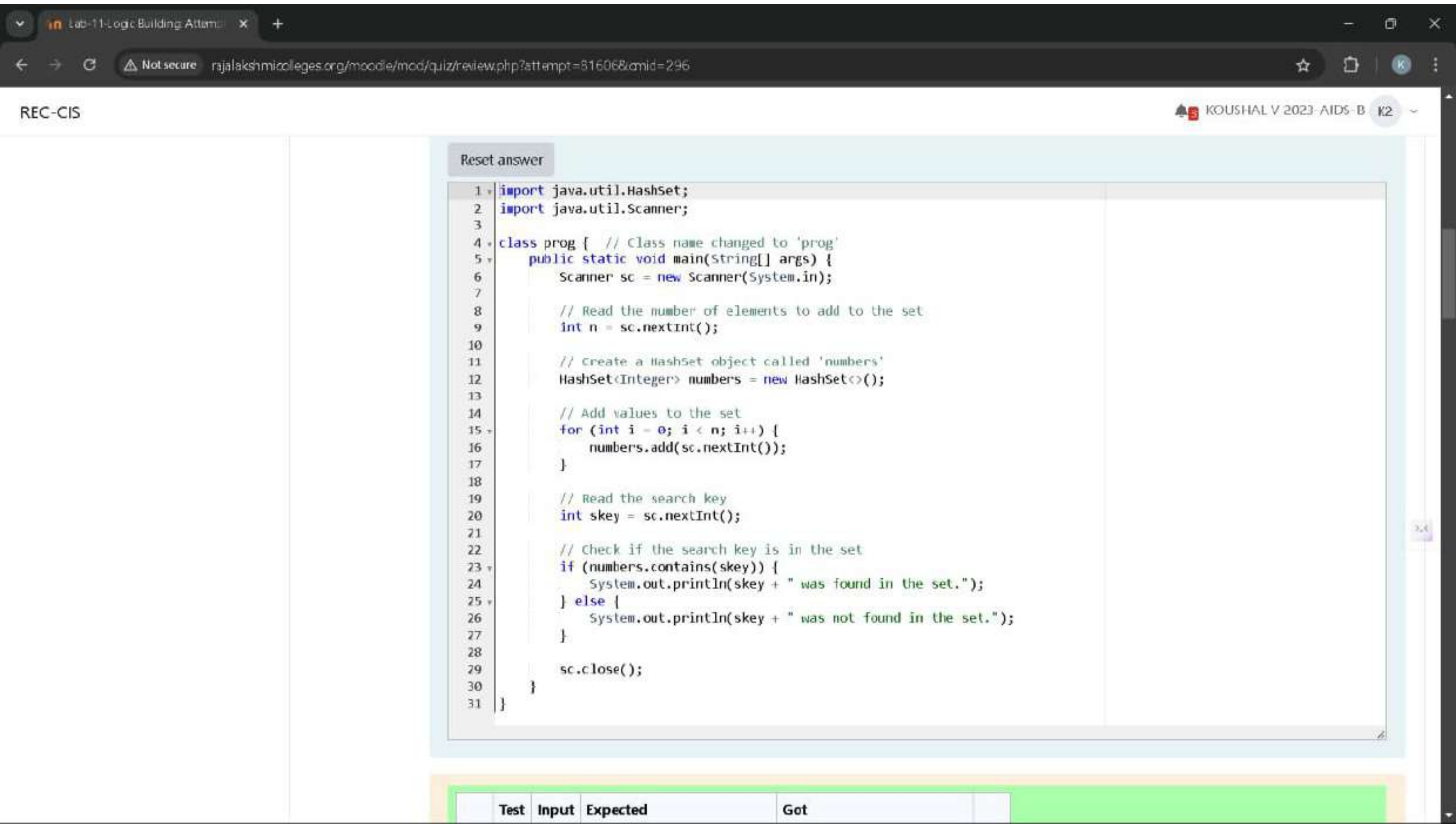
Cricket

Volleyball

Basketball

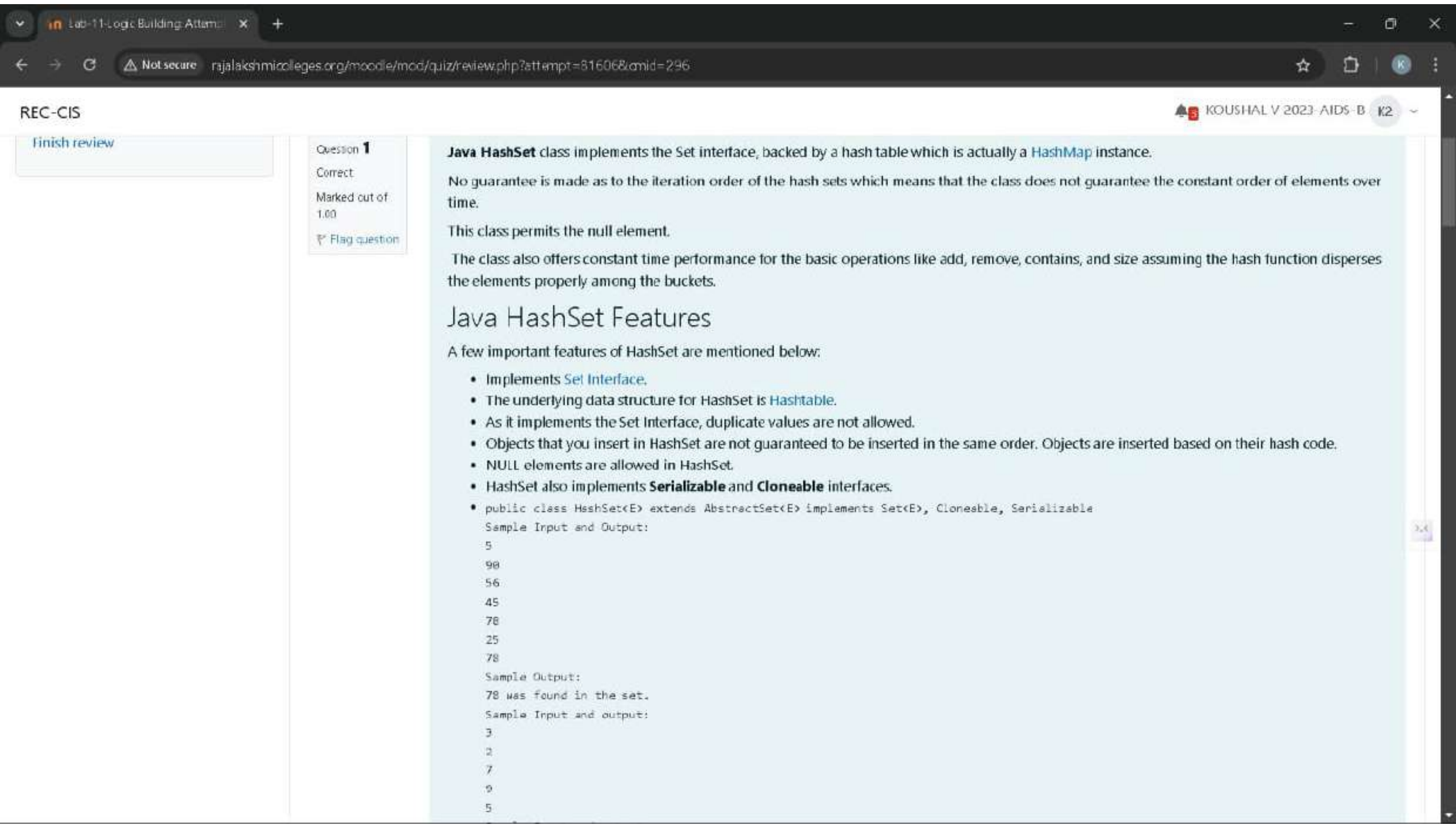
Answer: (penalty regime: 0 %)

```
import java.util.HashSet;
```


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Reset answer

```java
import java.util.HashSet;
import java.util.Scanner;

class prog {  // Class name changed to 'prog'
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        // Read the number of elements to add to the set
        int n = sc.nextInt();

        // Create a HashSet object called 'numbers'
        HashSet<Integer> numbers = new HashSet<>();

        // Add values to the set
        for (int i = 0; i < n; i++) {
            numbers.add(sc.nextInt());
        }

        // Read the search key
        int skey = sc.nextInt();

        // Check if the search key is in the set
        if (numbers.contains(skey)) {
            System.out.println(skey + " was found in the set.");
        } else {
            System.out.println(skey + " was not found in the set.");
        }

        sc.close();
    }
}
```

	Test	Input	Expected	Got	


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Finish review
Question 1
Correct
Marked out of 1.00
Flag question

Java HashSet class implements the Set interface, backed by a hash table which is actually a HashMap instance.

No guarantee is made as to the iteration order of the hash sets which means that the class does not guarantee the constant order of elements over time.

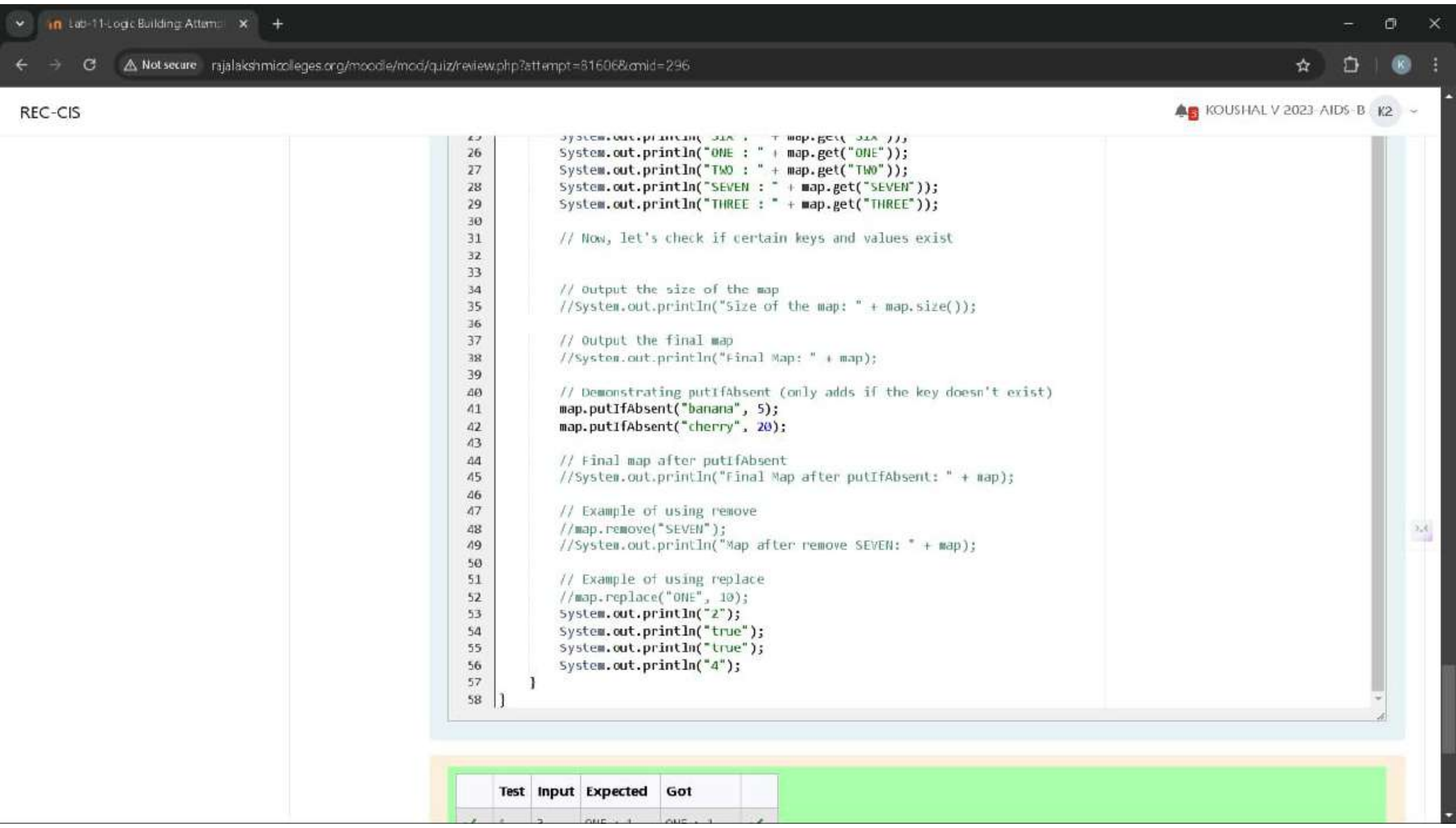
This class permits the null element.

The class also offers constant time performance for the basic operations like add, remove, contains, and size assuming the hash function disperses the elements properly among the buckets.

Java HashSet Features

A few important features of HashSet are mentioned below:

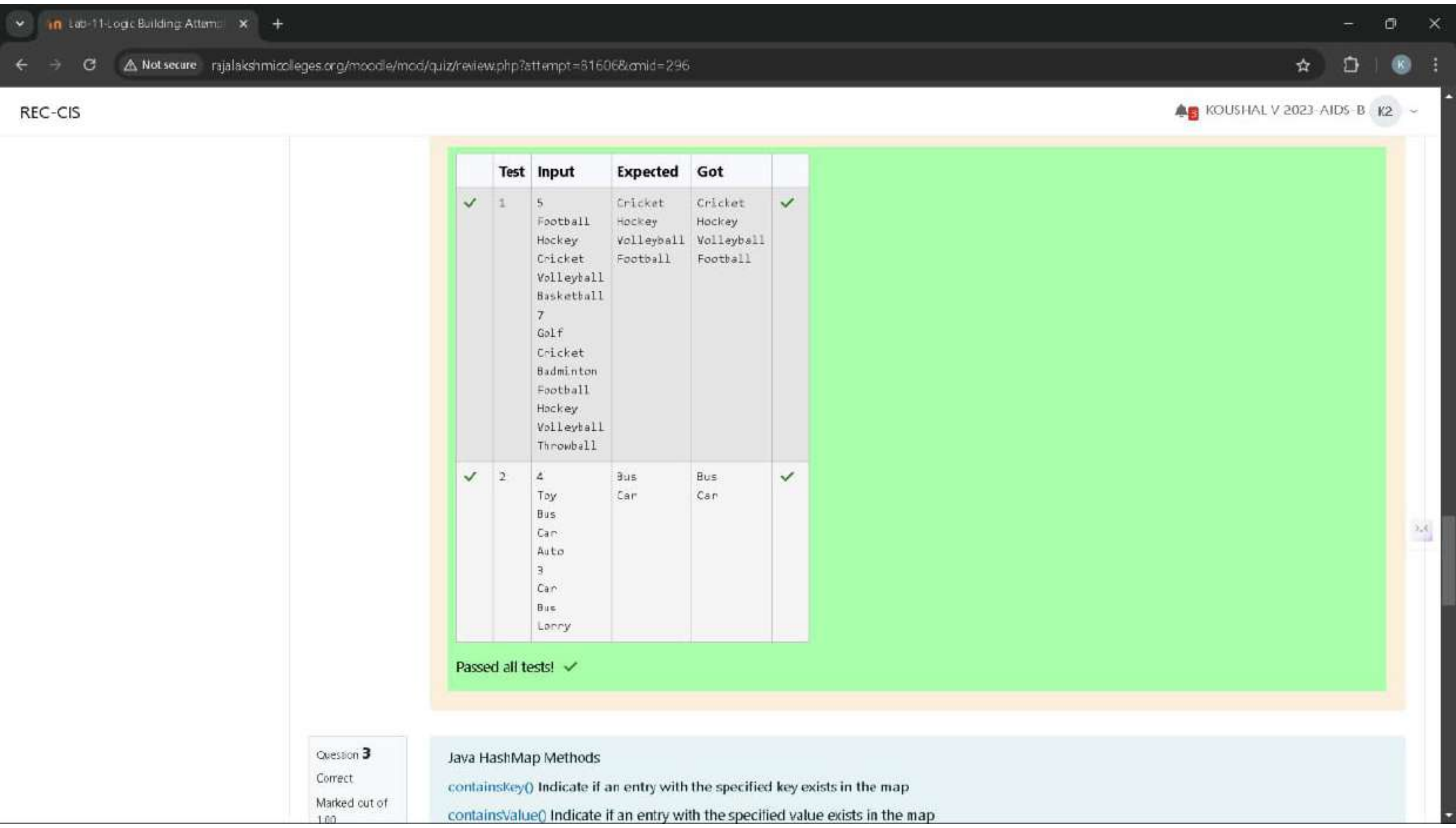
- Implements Set Interface.
- The underlying data structure for HashSet is Hashtable.
- As it implements the Set Interface, duplicate values are not allowed.
- Objects that you insert in HashSet are not guaranteed to be inserted in the same order. Objects are inserted based on their hash code.
- NULL elements are allowed in HashSet.
- HashSet also implements **Serializable** and **Cloneable** interfaces.
-
```
public class HashSet<E> extends AbstractSet<E> implements Set<E>, Cloneable, Serializable
Sample Input and Output:
5
90
56
45
78
25
78
Sample Output:
78 was found in the set.
Sample Input and output:
3
2
7
9
5
```



Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

```java
        System.out.println("SIX : " + map.get("SIX"));
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("SEVEN : " + map.get("SEVEN"));
        System.out.println("THREE : " + map.get("THREE"));

        // Now, let's check if certain keys and values exist


        // Output the size of the map
        //System.out.println("Size of the map: " + map.size());

        // Output the final map
        //System.out.println("Final Map: " + map);

        // Demonstrating putIfAbsent (only adds if the key doesn't exist)
        map.putIfAbsent("banana", 5);
        map.putIfAbsent("cherry", 20);

        // Final map after putIfAbsent
        //System.out.println("Final Map after putIfAbsent: " + map);

        // Example of using remove
        //map.remove("SEVEN");
        //System.out.println("Map after remove SEVEN: " + map);

        // Example of using replace
        //map.replace("ONE", 10);
        System.out.println("2");
        System.out.println("true");
        System.out.println("true");
        System.out.println("4");
    }
}
```

	Test	Input	Expected	Got	
✓	1	3	ONE : 1	ONE : 1	✓


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

	Test	Input	Expected	Got	
✓	1	5 Football Hockey Cricket Volleyball Basketball 7 Golf Cricket Badminton Football Hockey Volleyball Throwball	Cricket Hockey Volleyball Football	Cricket Hockey Volleyball Football	✓
✓	2	4 Toy Bus Car Auto 3 Car Bus Lorry	Bus Car	Bus Car	✓

Passed all tests! ✓

Question **3**

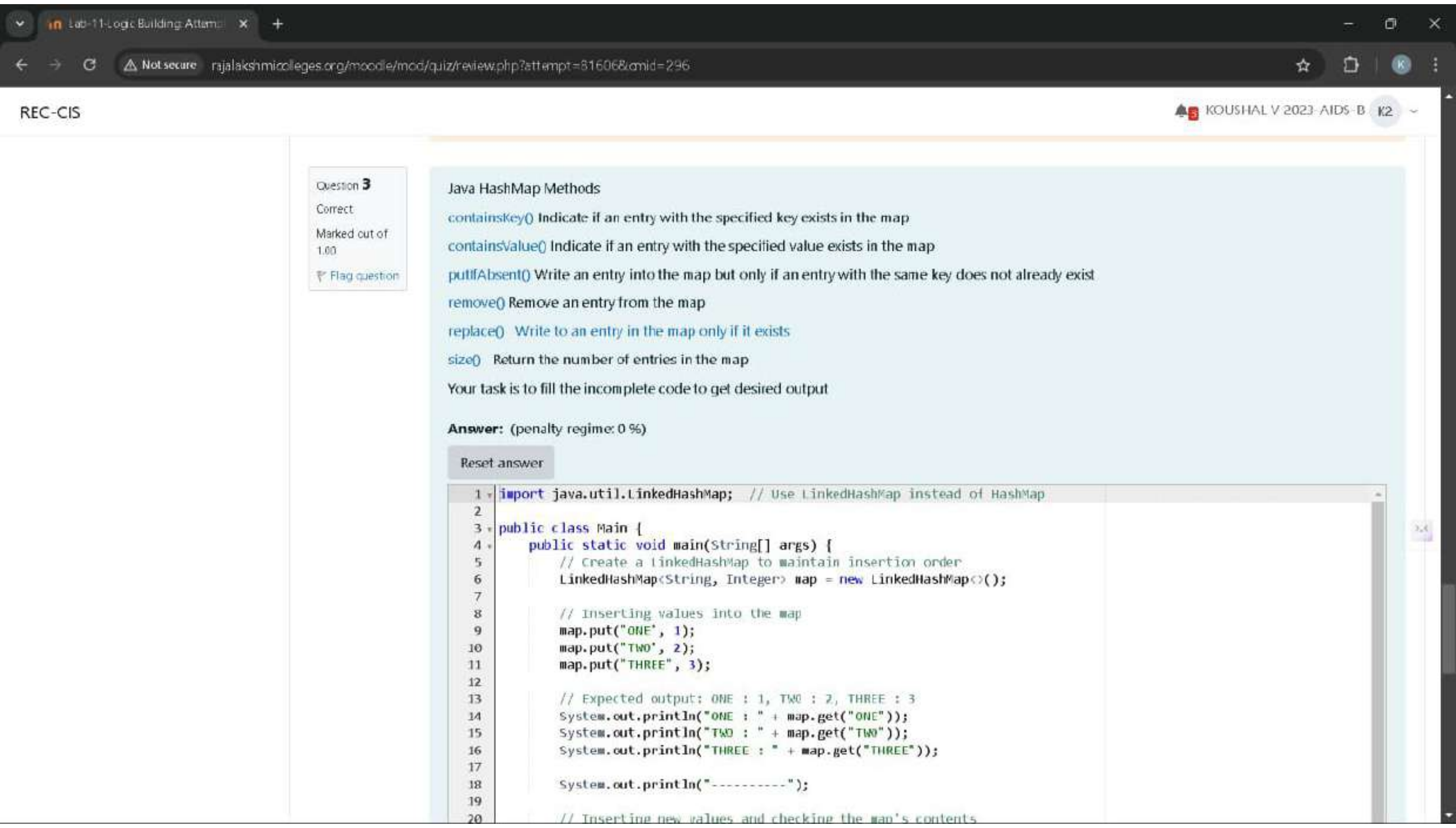
Correct

Marked out of 1.00

Java HashMap Methods

containsKey() Indicate if an entry with the specified key exists in the map

containsValue() Indicate if an entry with the specified value exists in the map



Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
KZ

Question **3**

Correct

Marked out of 1.00

Flag question

Java HashMap Methods

containsKey() Indicate if an entry with the specified key exists in the map

containsValue() Indicate if an entry with the specified value exists in the map

putIfAbsent() Write an entry into the map but only if an entry with the same key does not already exist

remove() Remove an entry from the map

replace() Write to an entry in the map only if it exists

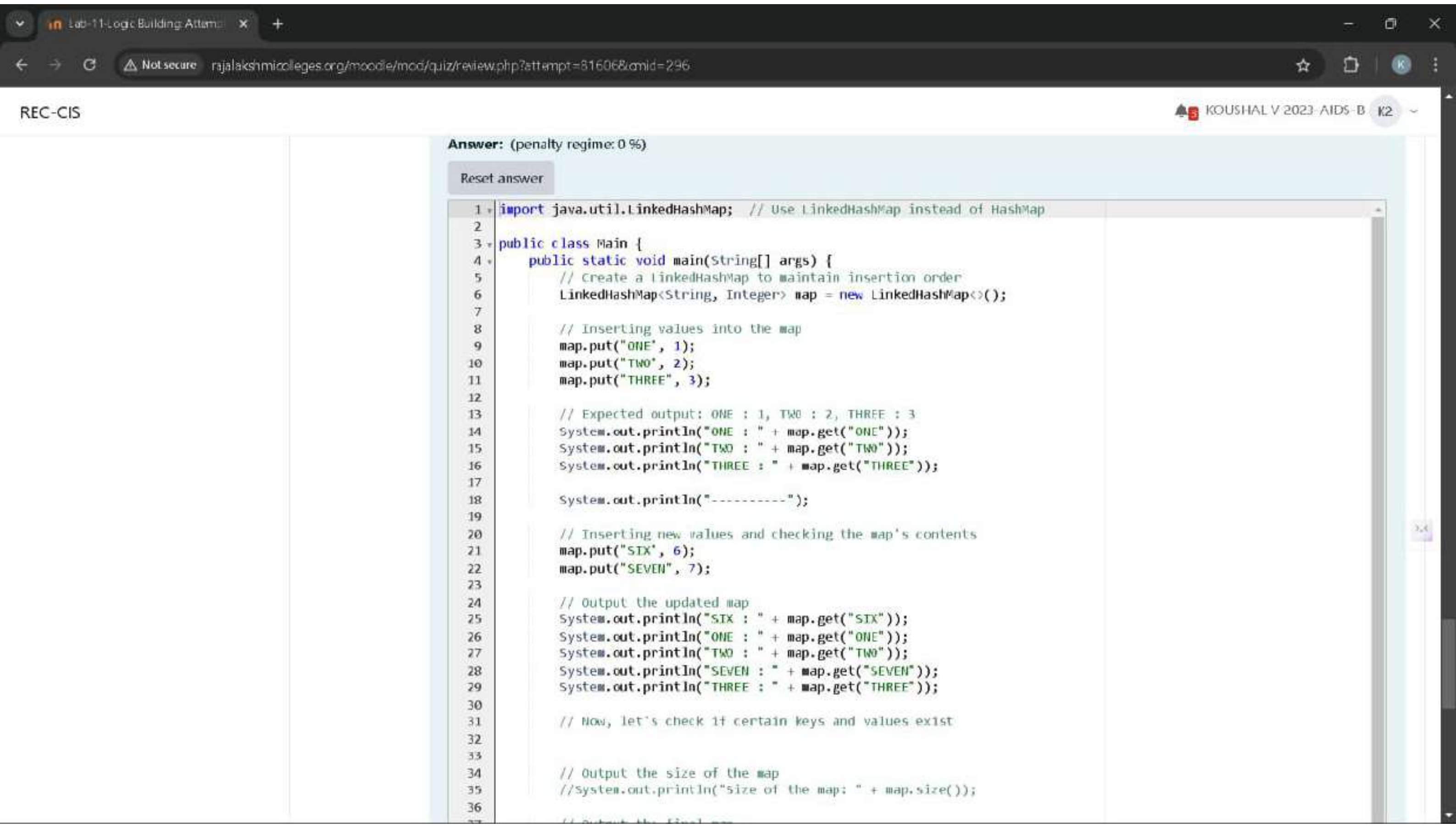
size() Return the number of entries in the map

Your task is to fill the incomplete code to get desired output

Answer: (penalty regime: 0 %)

Reset answer

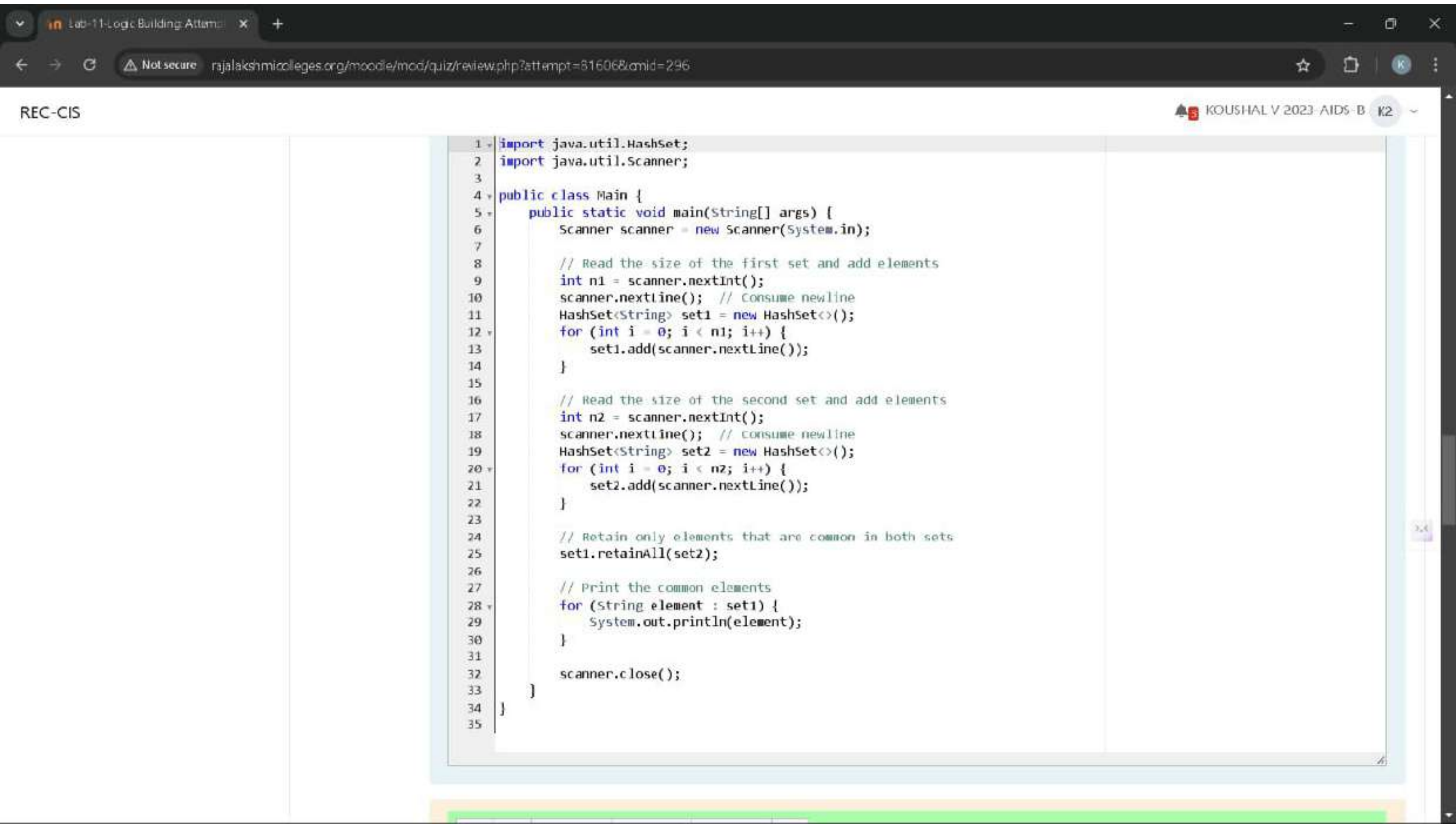
```java
import java.util.LinkedHashMap;  // Use LinkedHashMap instead of HashMap

public class Main {
    public static void main(String[] args) {
        // Create a LinkedHashMap to maintain insertion order
        LinkedHashMap<String, Integer> map = new LinkedHashMap<>();

        // Inserting values into the map
        map.put("ONE", 1);
        map.put("TWO", 2);
        map.put("THREE", 3);

        // Expected output: ONE : 1, TWO : 2, THREE : 3
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("THREE : " + map.get("THREE"));

        System.out.println("----------");

        // Inserting new values and checking the map's contents
```



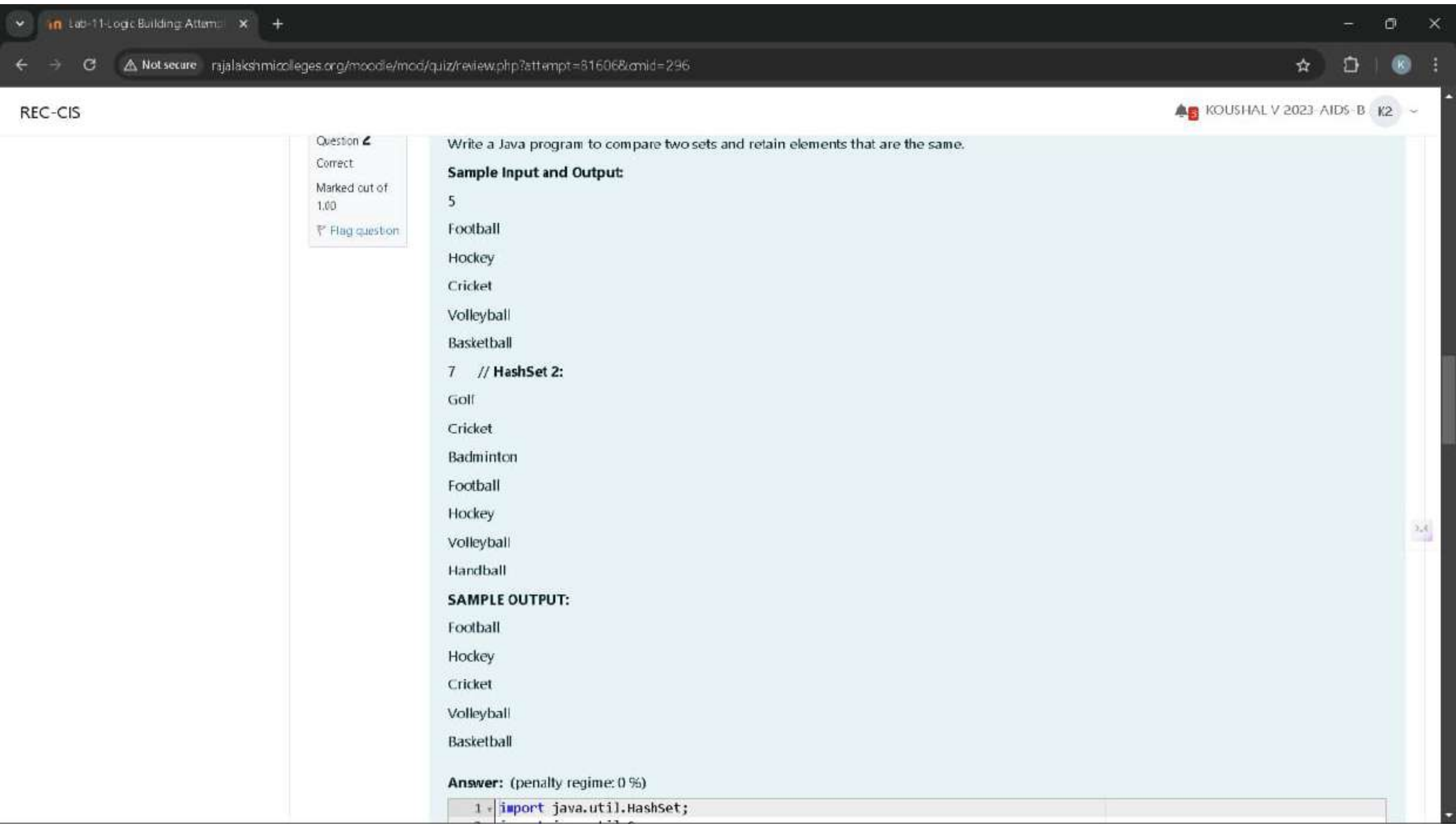
Lab-11-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

Answer: (penalty regime: 0 %)

```java
import java.util.LinkedHashMap;  // Use LinkedHashMap instead of HashMap

public class Main {
    public static void main(String[] args) {
        // Create a LinkedHashMap to maintain insertion order
        LinkedHashMap<String, Integer> map = new LinkedHashMap<>();

        // Inserting values into the map
        map.put("ONE", 1);
        map.put("TWO", 2);
        map.put("THREE", 3);

        // Expected output: ONE : 1, TWO : 2, THREE : 3
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("THREE : " + map.get("THREE"));

        System.out.println("----------");

        // Inserting new values and checking the map's contents
        map.put("SIX", 6);
        map.put("SEVEN", 7);

        // Output the updated map
        System.out.println("SIX : " + map.get("SIX"));
        System.out.println("ONE : " + map.get("ONE"));
        System.out.println("TWO : " + map.get("TWO"));
        System.out.println("SEVEN : " + map.get("SEVEN"));
        System.out.println("THREE : " + map.get("THREE"));

        // Now, let's check if certain keys and values exist


        // Output the size of the map
        //System.out.println("Size of the map: " + map.size());

        // Output the final map
```


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

```java
import java.util.HashSet;
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read the size of the first set and add elements
        int n1 = scanner.nextInt();
        scanner.nextLine();  // Consume newline
        HashSet<String> set1 = new HashSet<>();
        for (int i = 0; i < n1; i++) {
            set1.add(scanner.nextLine());
        }

        // Read the size of the second set and add elements
        int n2 = scanner.nextInt();
        scanner.nextLine();  // Consume newline
        HashSet<String> set2 = new HashSet<>();
        for (int i = 0; i < n2; i++) {
            set2.add(scanner.nextLine());
        }

        // Retain only elements that are common in both sets
        set1.retainAll(set2);

        // Print the common elements
        for (String element : set1) {
            System.out.println(element);
        }

        scanner.close();
    }
}

```


Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Question 2
Correct
Marked out of 1.00
Flag question

Write a Java program to compare two sets and retain elements that are the same.

Sample Input and Output:

5

Football

Hockey

Cricket

Volleyball

Basketball

7 // **HashSet 2:**

Golf

Cricket

Badminton

Football

Hockey

Volleyball

Handball

SAMPLE OUTPUT:

Football

Hockey

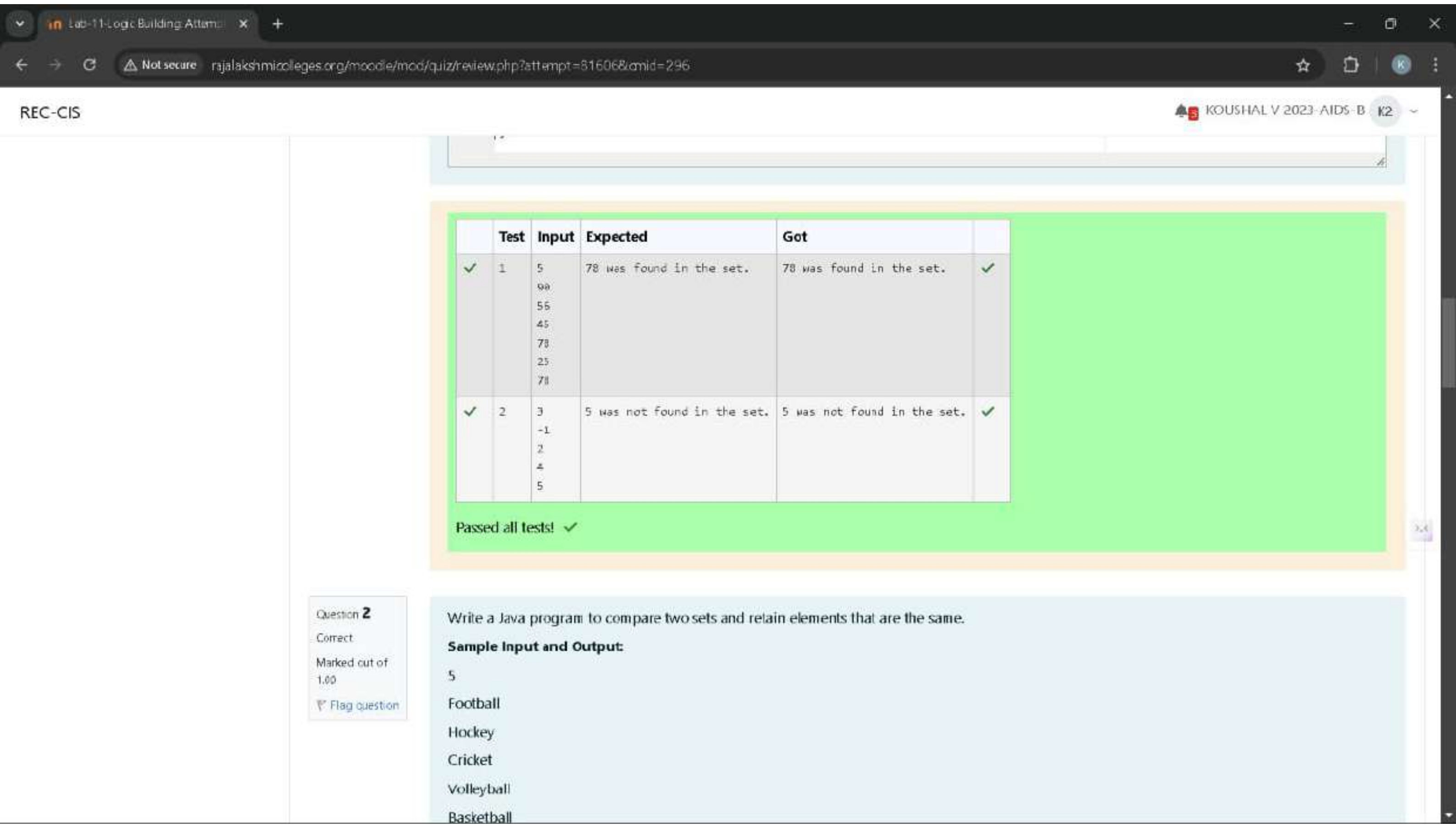
Cricket

Volleyball

Basketball

Answer: (penalty regime: 0 %)

```
import java.util.HashSet;
```


Lab-11-Logic Building Attem
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

	Test	Input	Expected	Got	
✓	1	5 90 56 45 78 25 78	78 was found in the set.	78 was found in the set.	✓
✓	2	3 -1 2 4 5	5 was not found in the set.	5 was not found in the set.	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 1.00

Flag question

Write a Java program to compare two sets and retain elements that are the same.

Sample Input and Output:

5

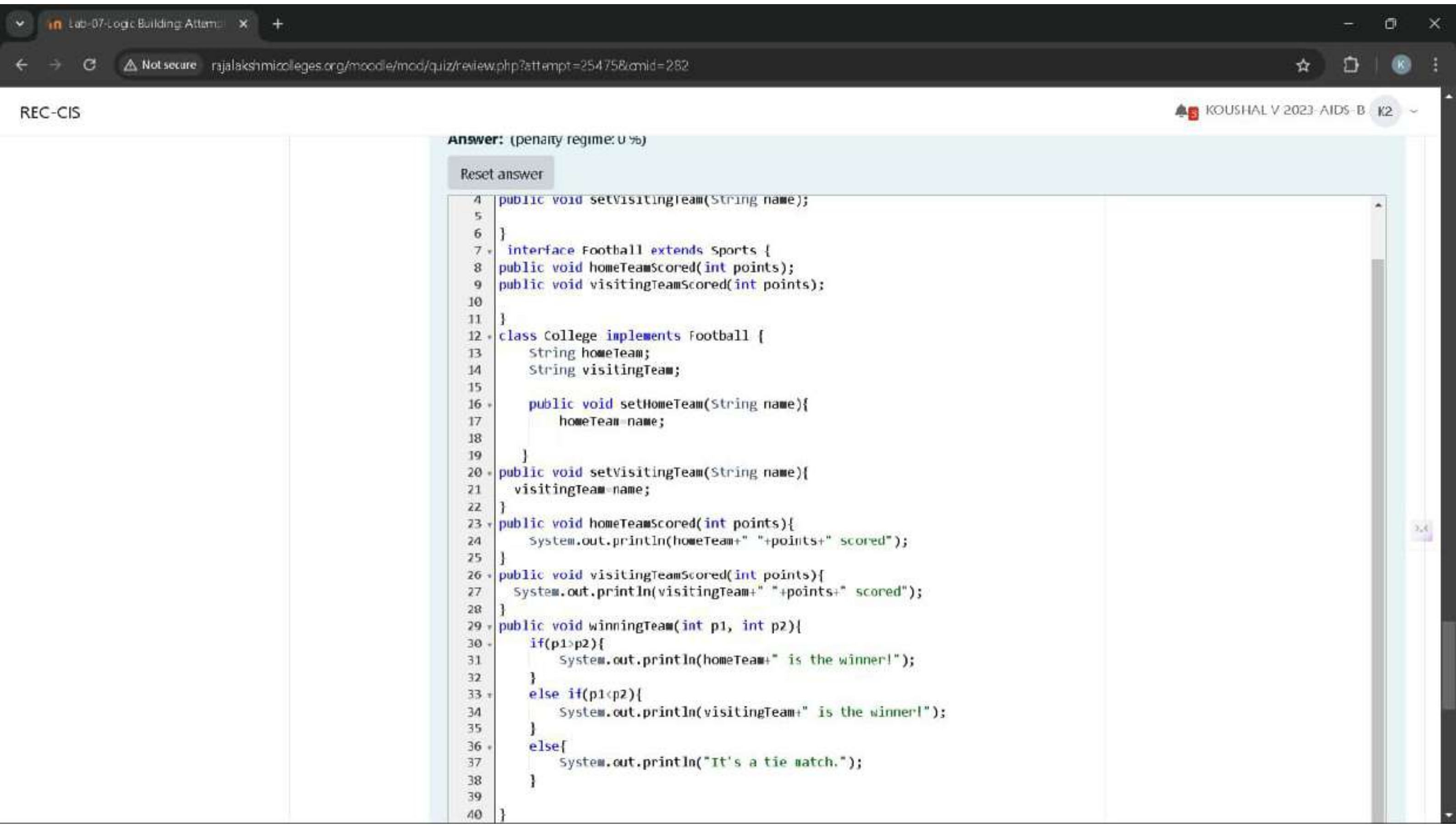
Football

Hockey

Cricket

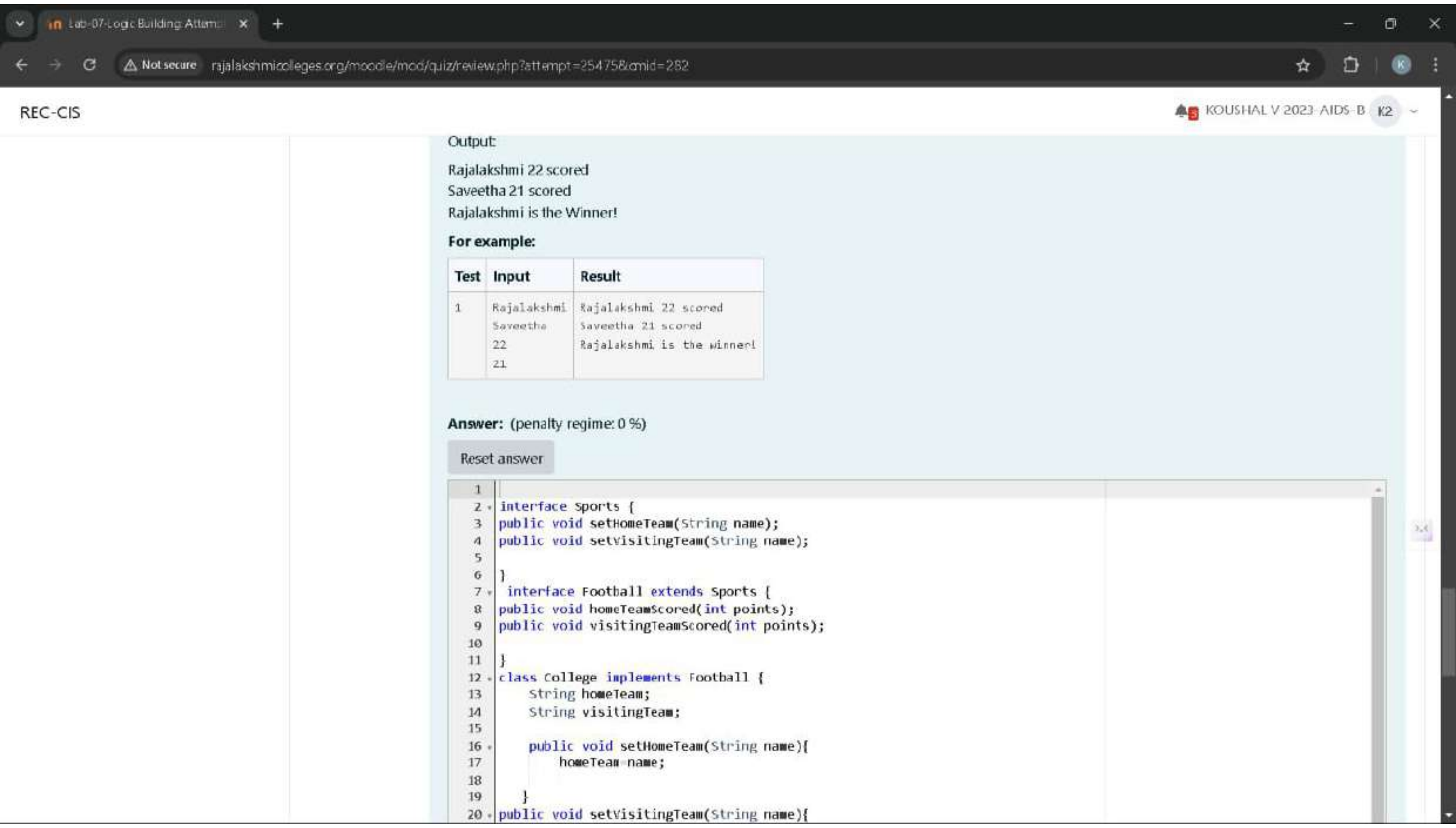
Volleyball

Basketball


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Reset answer

Answer: (penalty regime: 0 %)

```
public void setVisitingTeam(String name);

}
 interface Football extends Sports {
public void homeTeamScored(int points);
public void visitingTeamScored(int points);

}
class College implements Football {
    String homeTeam;
    String visitingTeam;

    public void setHomeTeam(String name){
        homeTeam=name;

   }
public void setVisitingTeam(String name){
  visitingTeam=name;
}
public void homeTeamScored(int points){
    System.out.println(homeTeam+" "+points+" scored");
}
public void visitingTeamScored(int points){
  System.out.println(visitingTeam+" "+points+" scored");
}
public void winningTeam(int p1, int p2){
    if(p1>p2){
        System.out.println(homeTeam+" is the winner!");
    }
    else if(p1<p2){
        System.out.println(visitingTeam+" is the winner!");
    }
    else{
        System.out.println("It's a tie match.");
    }

}
```


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

Output:

Rajalakshmi 22 scored
Saveetha 21 scored
Rajalakshmi is the Winner!

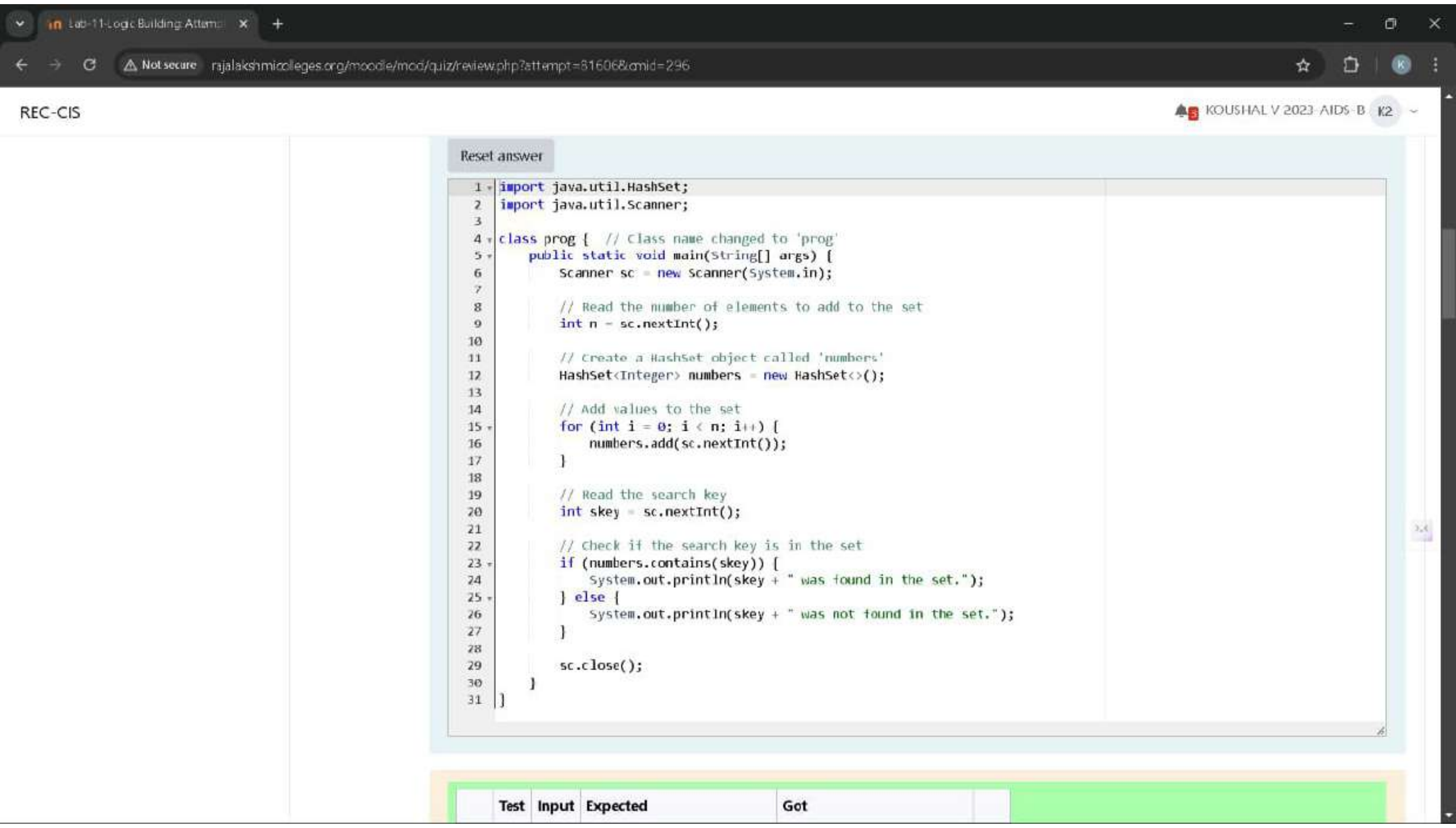
For example:

Test	Input	Result
1	Rajalakshmi Saveetha 22 21	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!

Answer: (penalty regime: 0 %)

Reset answer

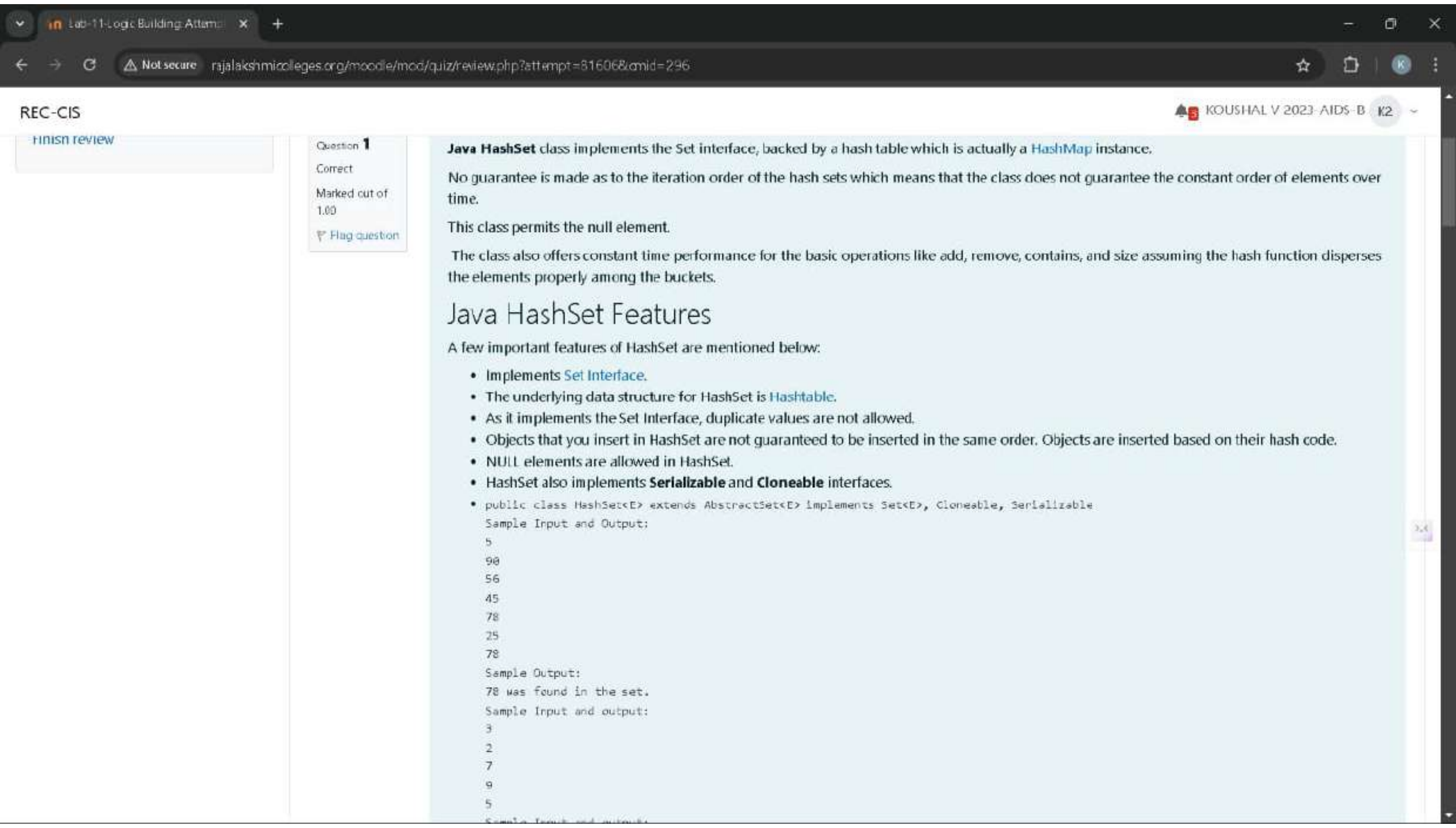
```

interface Sports {
public void setHomeTeam(String name);
public void setVisitingTeam(String name);

}
 interface Football extends Sports {
public void homeTeamScored(int points);
public void visitingTeamScored(int points);

}
class College implements Football {
    String homeTeam;
    String visitingTeam;

    public void setHomeTeam(String name){
        homeTeam=name;

   }
public void setVisitingTeam(String name){
```



Lab-11-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=81606&cmid=296
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Reset answer

```java
import java.util.HashSet;
import java.util.Scanner;

class prog {  // Class name changed to 'prog'
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        // Read the number of elements to add to the set
        int n = sc.nextInt();

        // Create a HashSet object called 'numbers'
        HashSet<Integer> numbers = new HashSet<>();

        // Add values to the set
        for (int i = 0; i < n; i++) {
            numbers.add(sc.nextInt());
        }

        // Read the search key
        int skey = sc.nextInt();

        // Check if the search key is in the set
        if (numbers.contains(skey)) {
            System.out.println(skey + " was found in the set.");
        } else {
            System.out.println(skey + " was not found in the set.");
        }

        sc.close();
    }
}
```

	Test	Input	Expected	Got	



Java HashSet class implements the Set interface, backed by a hash table which is actually a HashMap instance.

No guarantee is made as to the iteration order of the hash sets which means that the class does not guarantee the constant order of elements over time.

This class permits the null element.

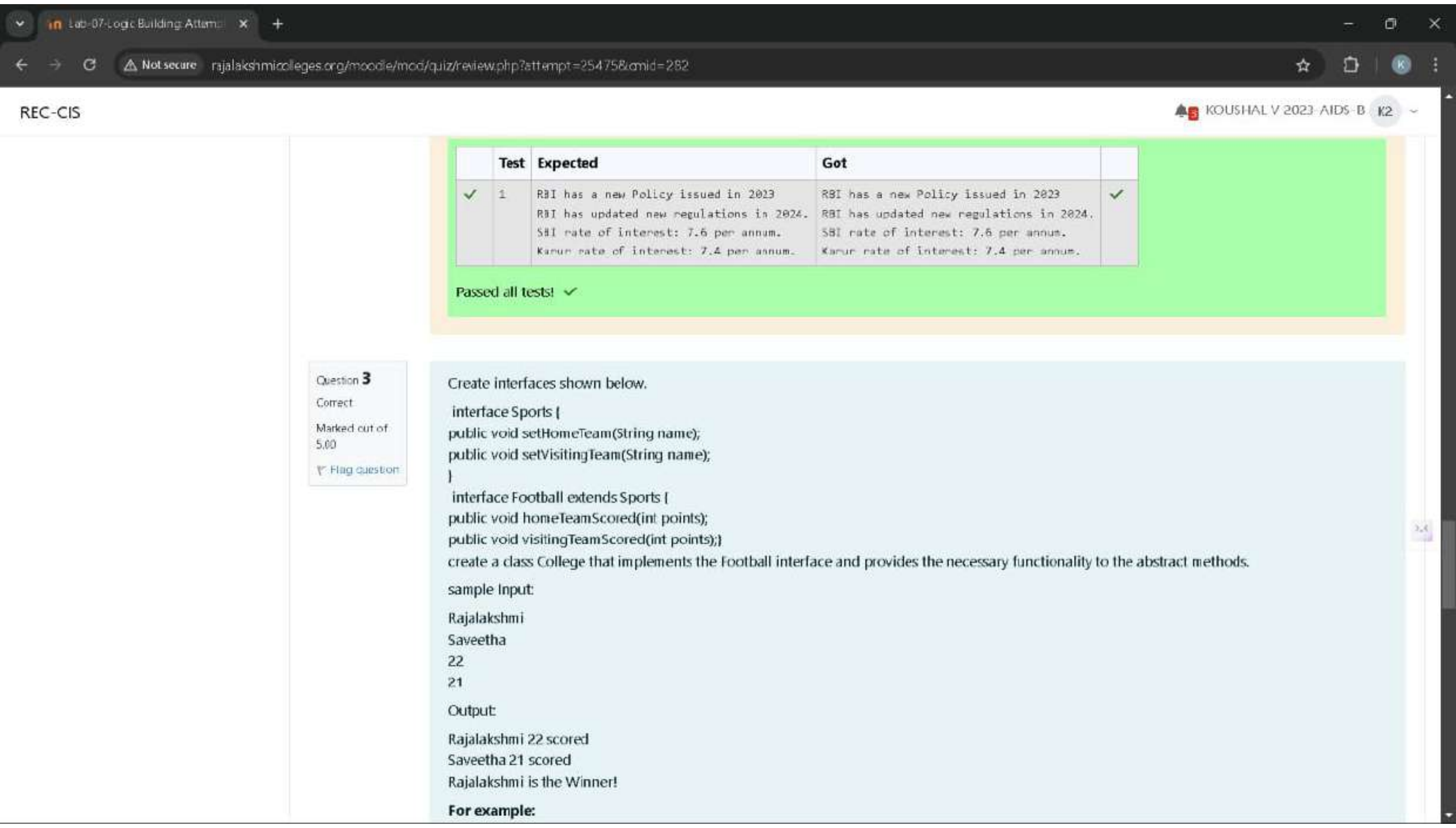
The class also offers constant time performance for the basic operations like add, remove, contains, and size assuming the hash function disperses the elements properly among the buckets.

Java HashSet Features

A few important features of HashSet are mentioned below:

- Implements Set Interface.
- The underlying data structure for HashSet is Hashtable.
- As it implements the Set Interface, duplicate values are not allowed.
- Objects that you insert in HashSet are not guaranteed to be inserted in the same order. Objects are inserted based on their hash code.
- NULL elements are allowed in HashSet.
- HashSet also implements **Serializable** and **Cloneable** interfaces.

-
  ```
  public class HashSet<E> extends AbstractSet<E> implements Set<E>, Cloneable, Serializable
  Sample Input and Output:
  5
  90
  56
  45
  78
  25
  78
  Sample Output:
  78 was found in the set.
  Sample Input and output:
  3
  2
  7
  9
  5
  ```



Lab-07-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

	Test	Expected	Got	
✓	1	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.	✓

Passed all tests! ✓

Question **3**
Correct
Marked out of 5.00
Flag question

Create interfaces shown below.

```
 interface Sports {
public void setHomeTeam(String name);
public void setVisitingTeam(String name);
}
 interface Football extends Sports {
public void homeTeamScored(int points);
public void visitingTeamScored(int points);}
```

create a class College that implements the Football interface and provides the necessary functionality to the abstract methods.

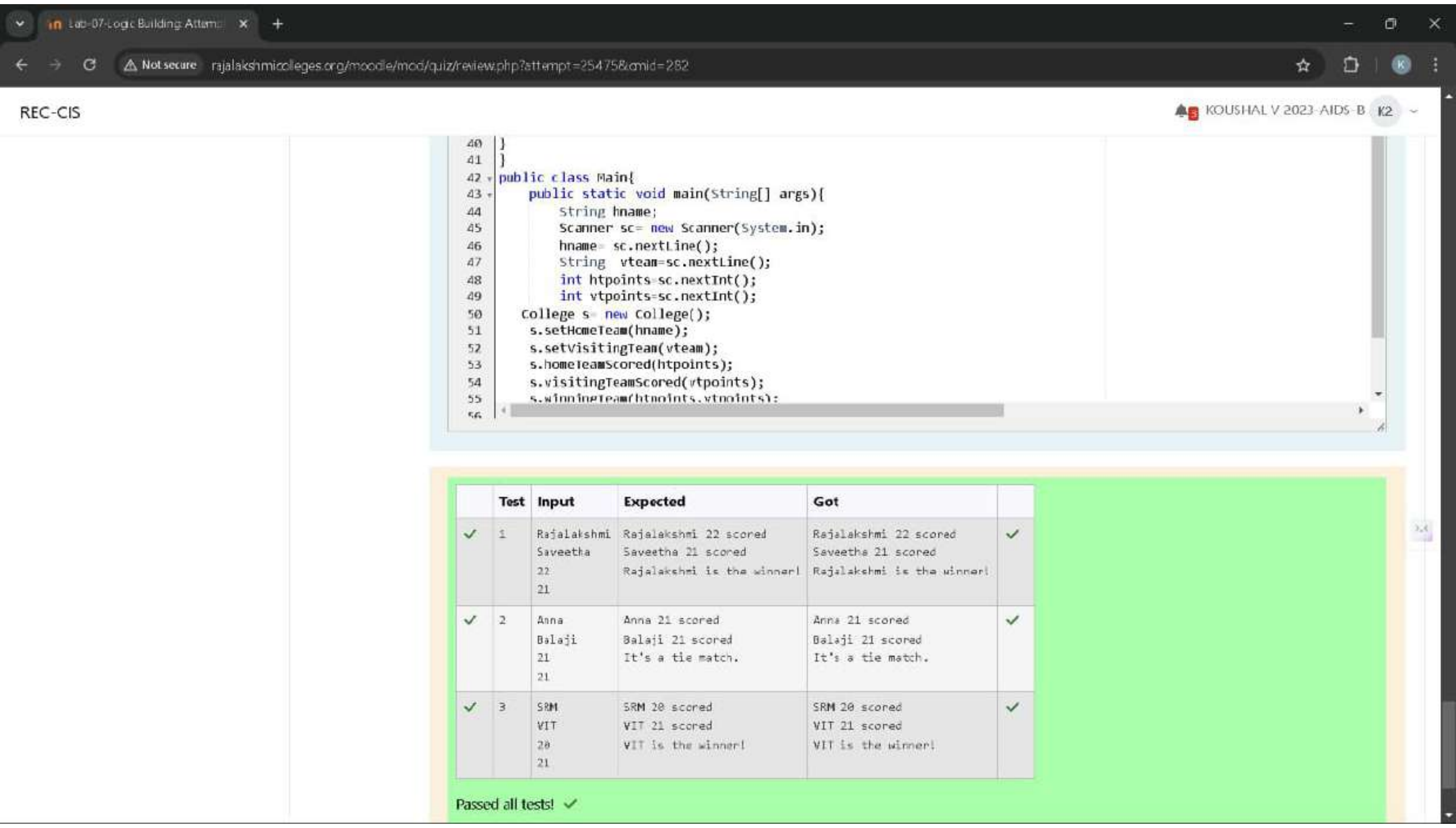
sample Input:

```
Rajalakshmi
Saveetha
22
21
```

Output:

```
Rajalakshmi 22 scored
Saveetha 21 scored
Rajalakshmi is the Winner!
```

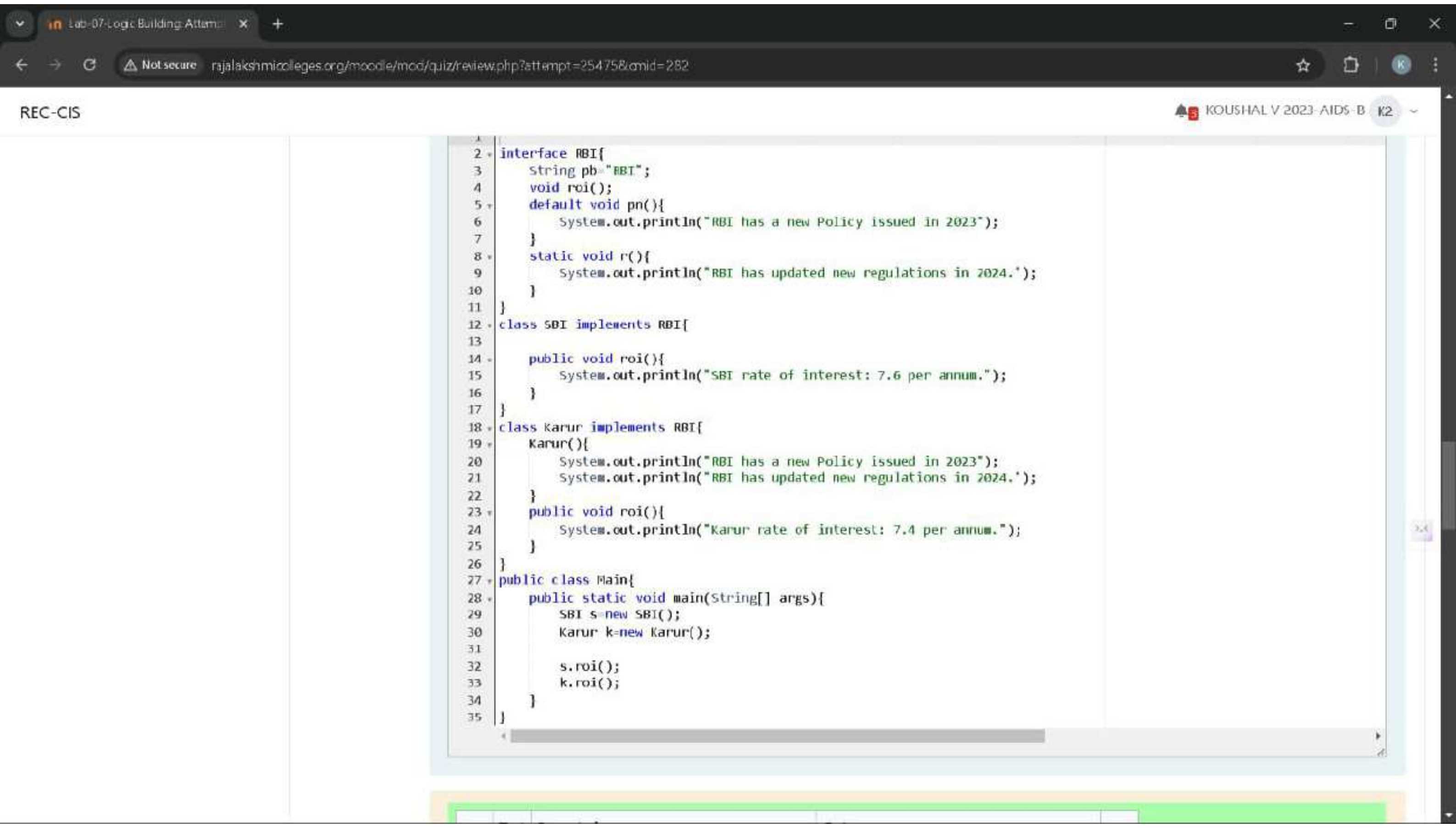
For example:


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

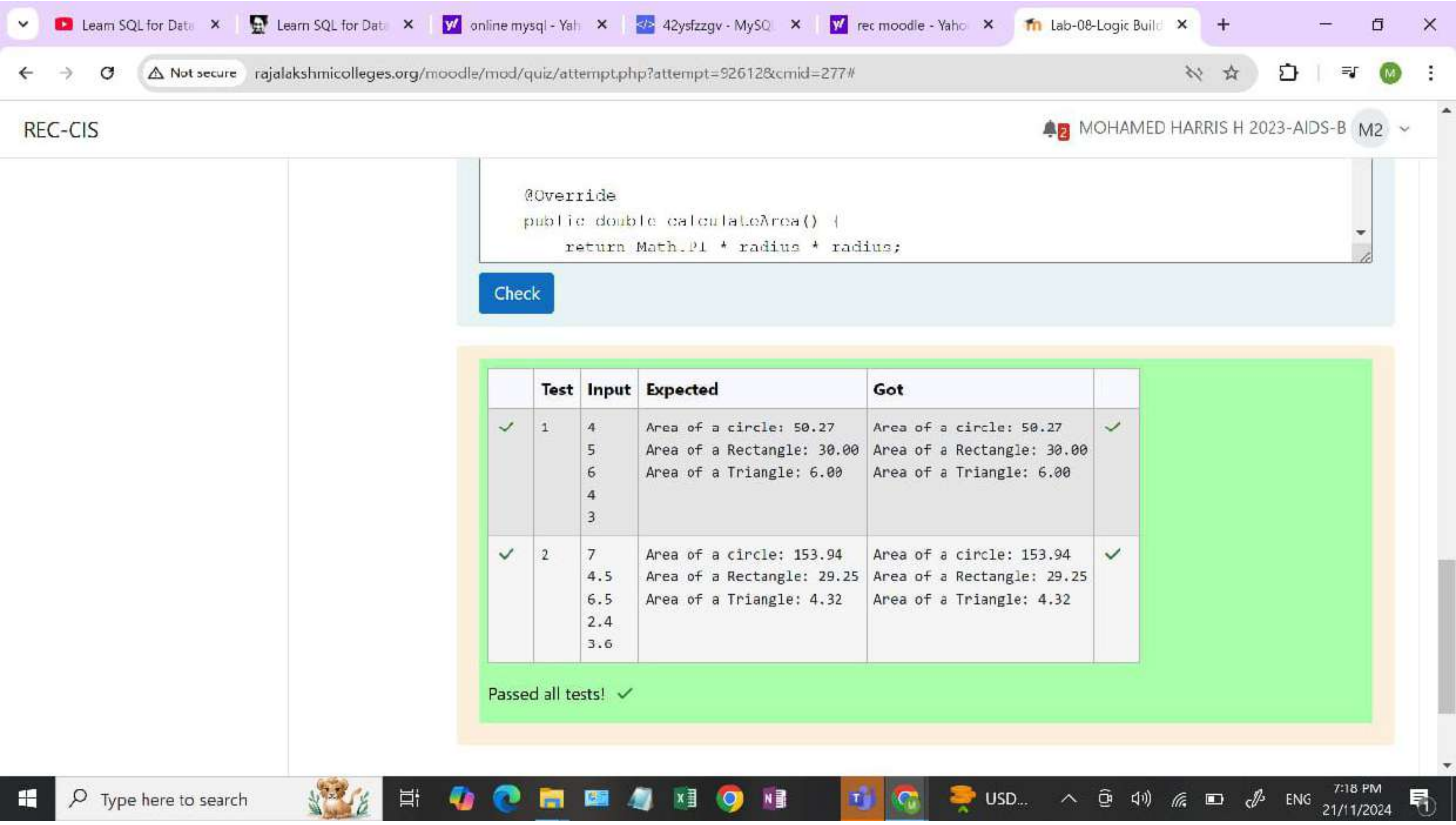
```java
}
}
public class Main{
    public static void main(String[] args){
        String hname;
        Scanner sc= new Scanner(System.in);
        hname= sc.nextLine();
        String  vteam=sc.nextLine();
        int htpoints=sc.nextInt();
        int vtpoints=sc.nextInt();
  College s= new College();
   s.setHomeTeam(hname);
   s.setVisitingTeam(vteam);
   s.homeTeamScored(htpoints);
   s.visitingTeamScored(vtpoints);
   s.winningTeam(htpoints,vtpoints);
```

	Test	Input	Expected	Got	
✓	1	Rajalakshmi Saveetha 22 21	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!	✓
✓	2	Anna Balaji 21 21	Anna 21 scored Balaji 21 scored It's a tie match.	Anna 21 scored Balaji 21 scored It's a tie match.	✓
✓	3	SRM VIT 20 21	SRM 20 scored VIT 21 scored VIT is the winner!	SRM 20 scored VIT 21 scored VIT is the winner!	✓

Passed all tests! ✓


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

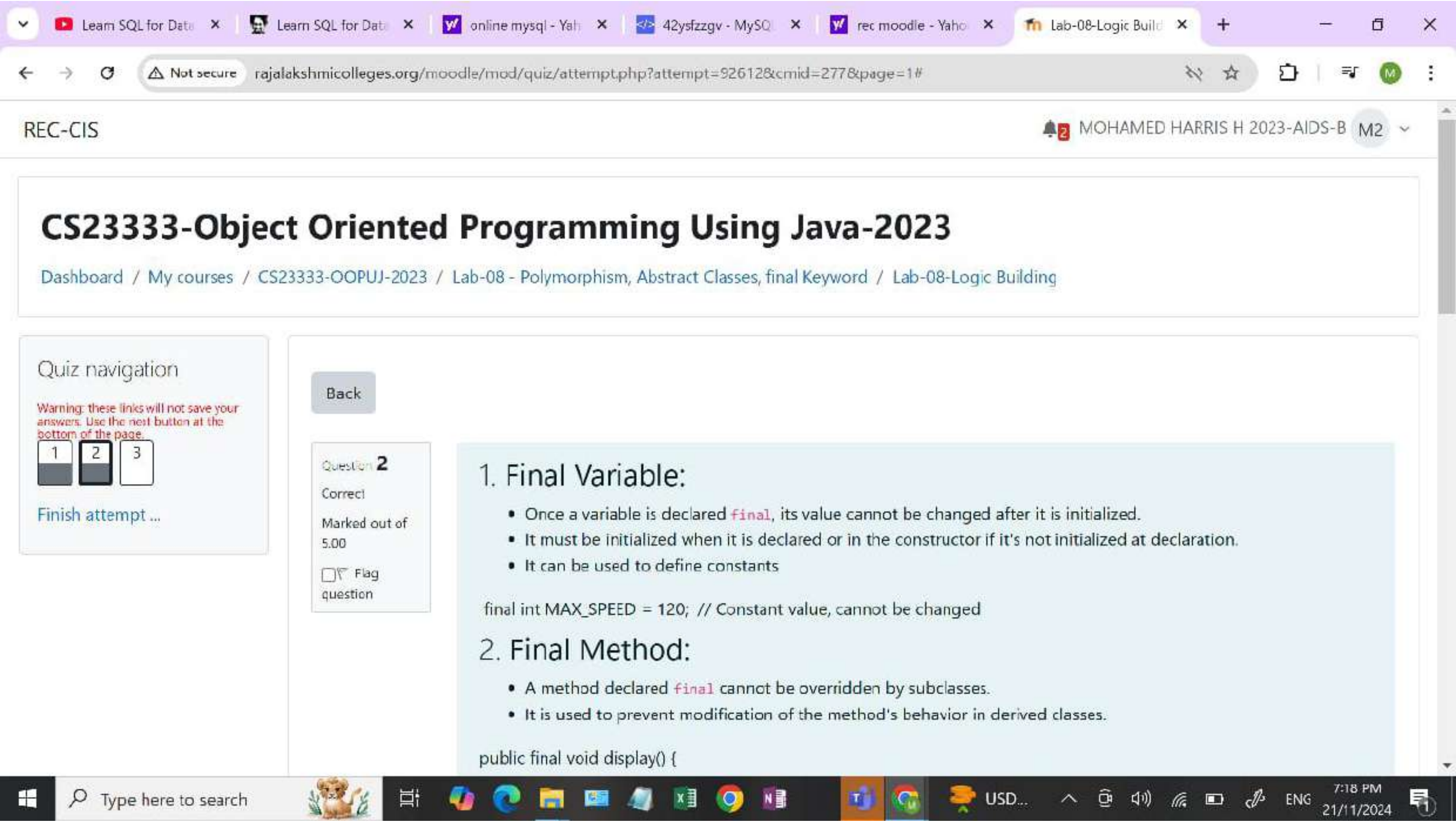
```

interface RBI{
    String pb="RBI";
    void roi();
    default void pn(){
        System.out.println("RBI has a new Policy issued in 2023");
    }
    static void r(){
        System.out.println("RBI has updated new regulations in 2024.");
    }
}
class SBI implements RBI{

    public void roi(){
        System.out.println("SBI rate of interest: 7.6 per annum.");
    }
}
class Karur implements RBI{
    Karur(){
        System.out.println("RBI has a new Policy issued in 2023");
        System.out.println("RBI has updated new regulations in 2024.");
    }
    public void roi(){
        System.out.println("Karur rate of interest: 7.4 per annum.");
    }
}
public class Main{
    public static void main(String[] args){
        SBI s=new SBI();
        Karur k=new Karur();

        s.roi();
        k.roi();
    }
}
```



```
    @Override
    public double calculateArea() {
        return Math.PI * radius * radius;
```

	Test	Input	Expected	Got	
✓	1	4 5 6 4 3	Area of a circle: 50.27 Area of a Rectangle: 30.00 Area of a Triangle: 6.00	Area of a circle: 50.27 Area of a Rectangle: 30.00 Area of a Triangle: 6.00	✓
✓	2	7 4.5 6.5 2.4 3.6	Area of a circle: 153.94 Area of a Rectangle: 29.25 Area of a Triangle: 4.32	Area of a circle: 153.94 Area of a Rectangle: 29.25 Area of a Triangle: 4.32	✓

Passed all tests! ✓



CS23333-Object Oriented Programming Using Java-2023

Dashboard / My courses / CS23333-OOPUJ-2023 / Lab-08 - Polymorphism, Abstract Classes, final Keyword / Lab-08-Logic Building

Quiz navigation
Warning: these links will not save your answers. Use the next button at the bottom of the page.
1
2
3
Finish attempt ...
Back

Question 2

Correct

Marked out of 5.00

□ Flag question

1. Final Variable:

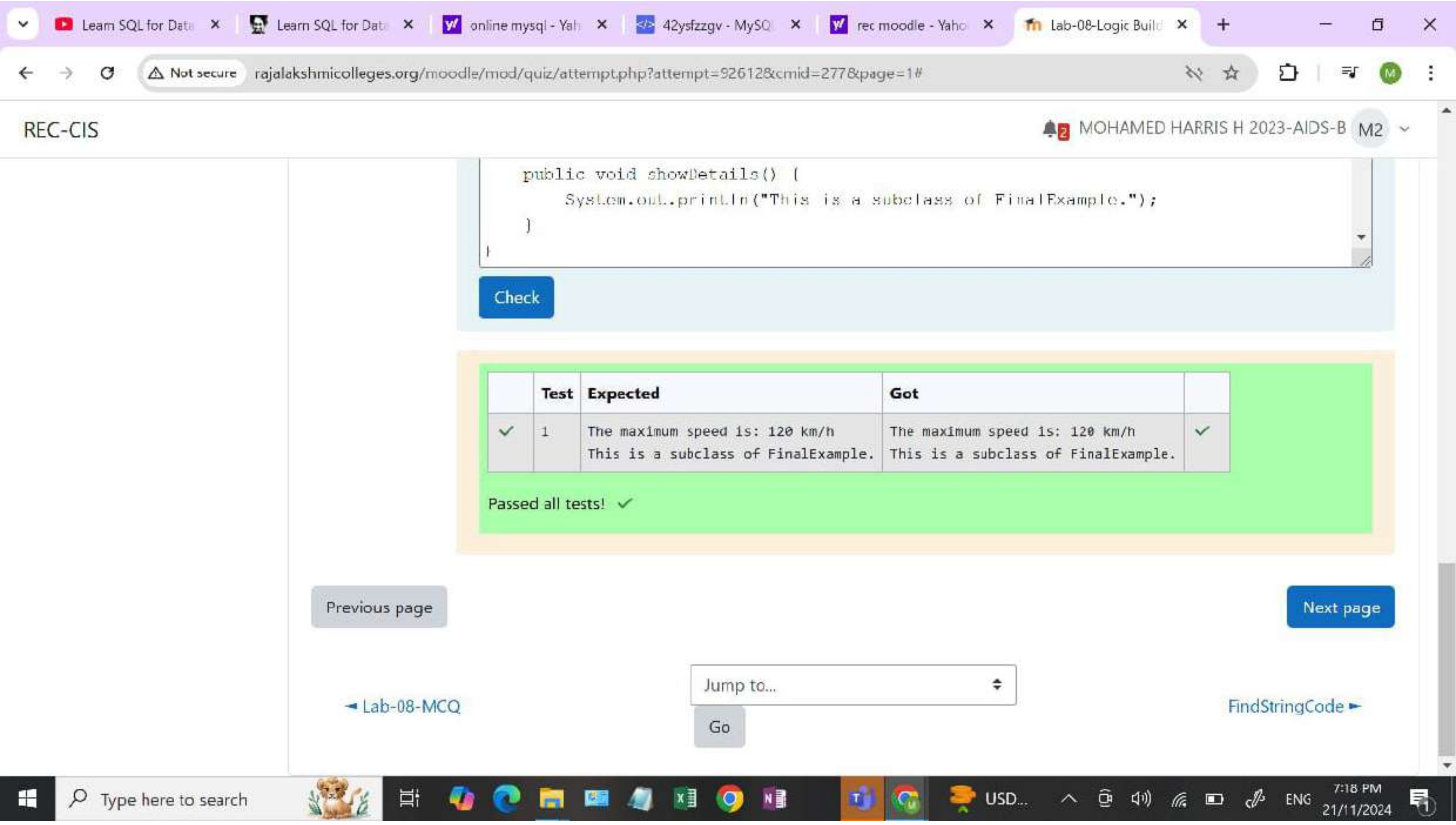
- Once a variable is declared `final`, its value cannot be changed after it is initialized.
- It must be initialized when it is declared or in the constructor if it's not initialized at declaration.
- It can be used to define constants

```
final int MAX_SPEED = 120;  // Constant value, cannot be changed
```

2. Final Method:

- A method declared `final` cannot be overridden by subclasses.
- It is used to prevent modification of the method's behavior in derived classes.

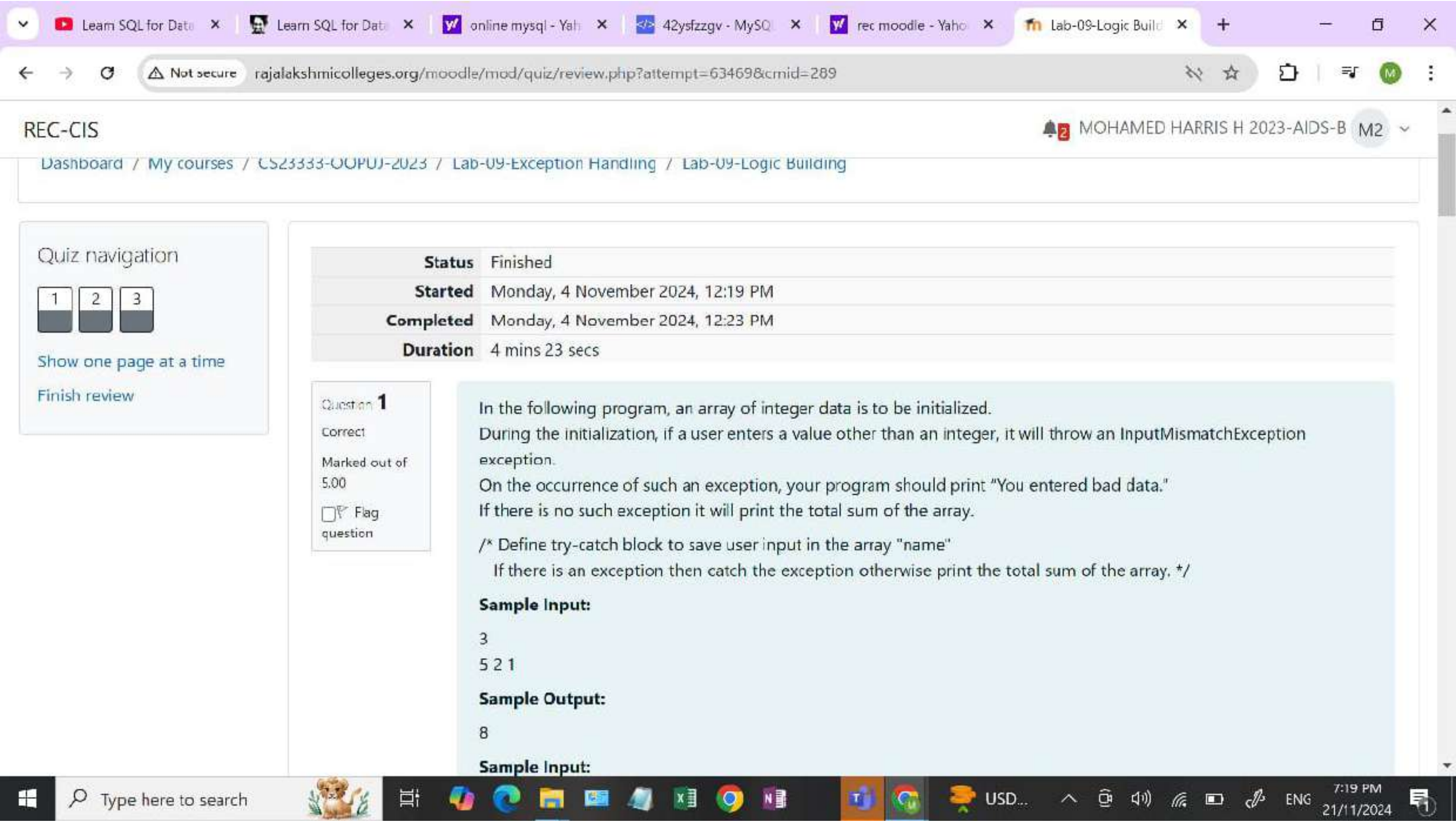
```
public final void display() {
```



```
    public void showDetails() {
        System.out.println("This is a subclass of FinalExample.");
    }
}
```

	Test	Expected	Got	
✓	1	The maximum speed is: 120 km/h This is a subclass of FinalExample.	The maximum speed is: 120 km/h This is a subclass of FinalExample.	✓

Passed all tests! ✓



Status	Finished
Started	Monday, 4 November 2024, 12:19 PM
Completed	Monday, 4 November 2024, 12:23 PM
Duration	4 mins 23 secs

Question **1**

Correct

Marked out of 5.00

□ Flag question

In the following program, an array of integer data is to be initialized.
During the initialization, if a user enters a value other than an integer, it will throw an InputMismatchException exception.
On the occurrence of such an exception, your program should print "You entered bad data."
If there is no such exception it will print the total sum of the array.

/* Define try-catch block to save user input in the array "name"
If there is an exception then catch the exception otherwise print the total sum of the array. */

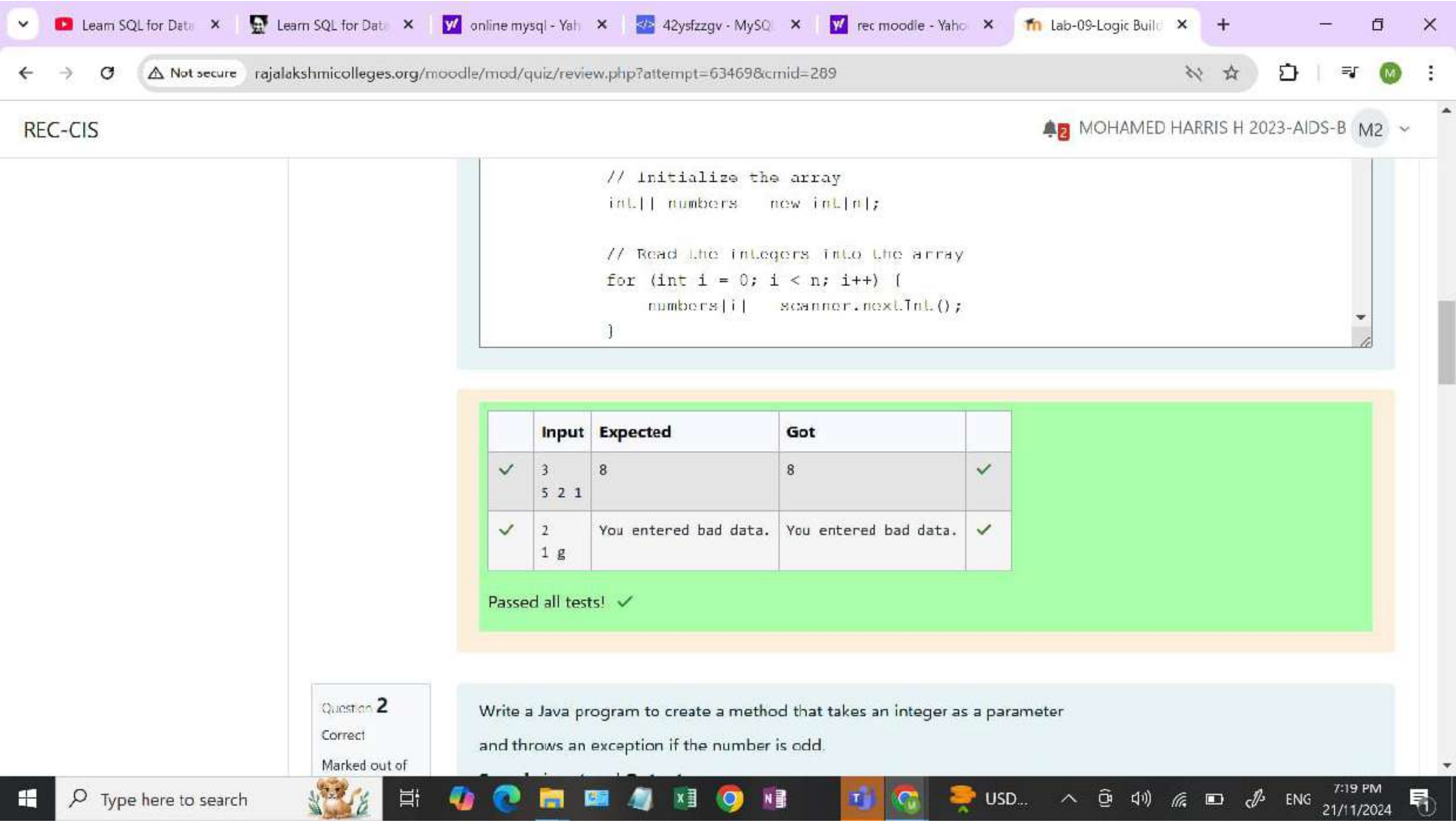
Sample Input:

3
5 2 1

Sample Output:

8

Sample Input:



```
        // initialize the array
        int[] numbers = new int[n];

        // Read the integers into the array
        for (int i = 0; i < n; i++) {
            numbers[i] = scanner.nextInt();
        }
```

	Input	Expected	Got	
✓	3 5 2 1	8	8	✓
✓	2 1 g	You entered bad data.	You entered bad data.	✓

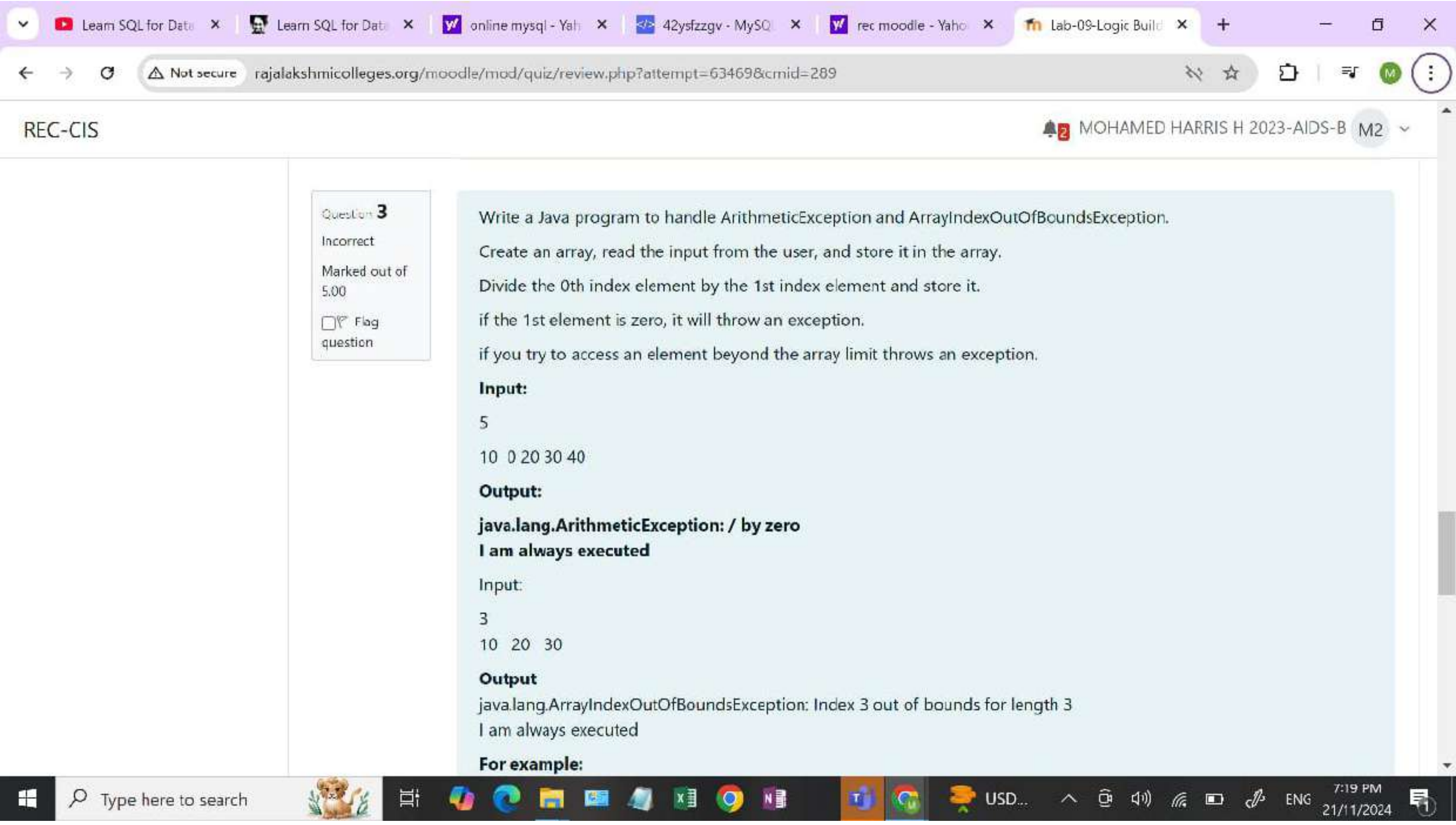
Passed all tests! ✓

Question 2

Correct

Marked out of

Write a Java program to create a method that takes an integer as a parameter and throws an exception if the number is odd.



Question 3

Incorrect

Marked out of 5.00

□ Flag question

Write a Java program to handle ArithmeticException and ArrayIndexOutOfBoundsException.

Create an array, read the input from the user, and store it in the array.

Divide the 0th index element by the 1st index element and store it.

if the 1st element is zero, it will throw an exception.

if you try to access an element beyond the array limit throws an exception.

Input:

```
5
10  0 20 30 40
```

Output:

```
java.lang.ArithmeticException: / by zero
I am always executed
```

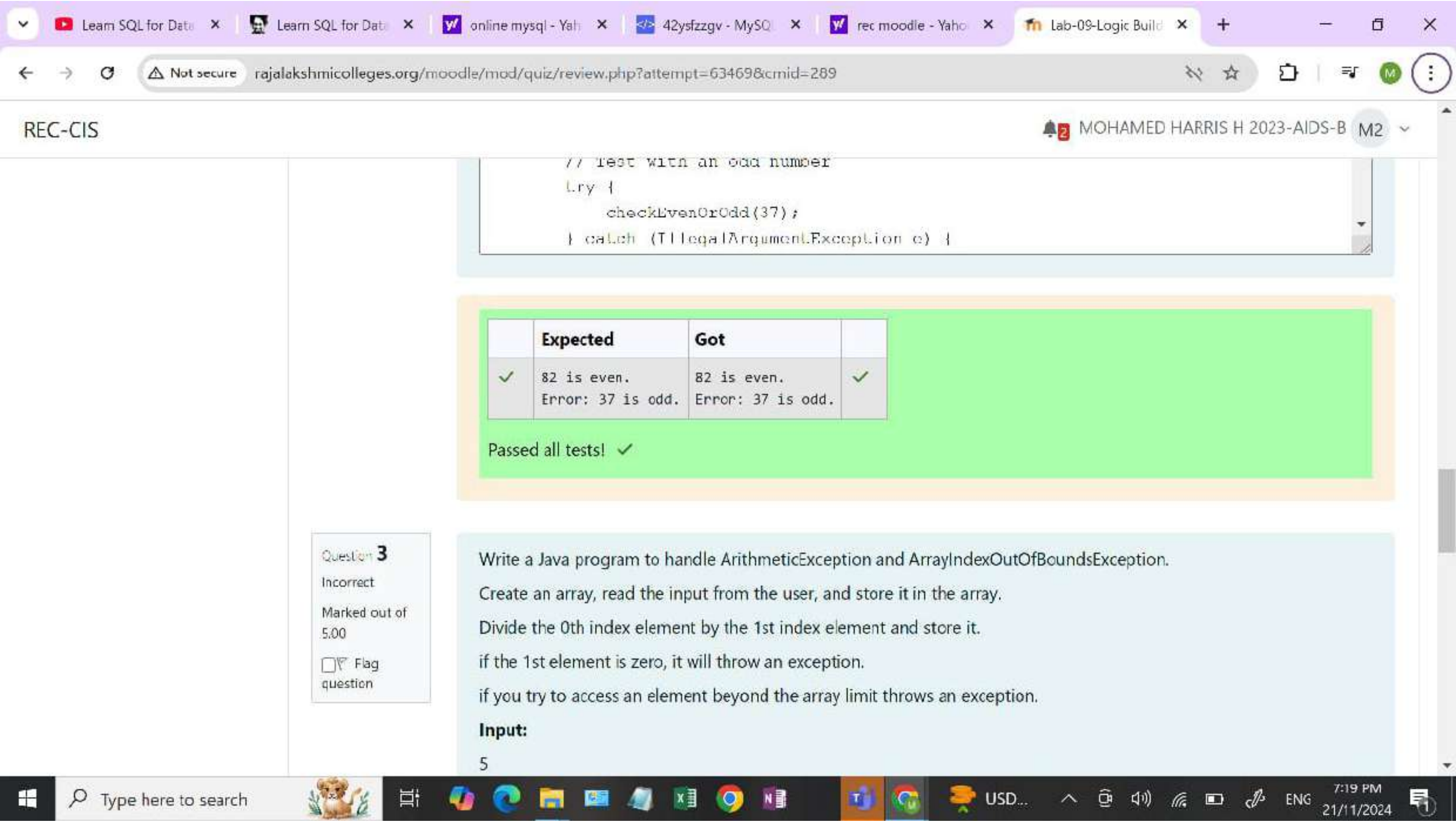
Input:

```
3
10   20   30
```

Output

```
java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3
I am always executed
```

For example:



```
        // Test with an odd number
        try {
            checkEvenOrOdd(37);
        } catch (IllegalArgumentException e) {
```

	Expected	Got	
✓	82 is even. Error: 37 is odd.	82 is even. Error: 37 is odd.	✓

Passed all tests! ✓

Question 3

Incorrect

Marked out of 5.00

□ Flag question

Write a Java program to handle ArithmeticException and ArrayIndexOutOfBoundsException.

Create an array, read the input from the user, and store it in the array.

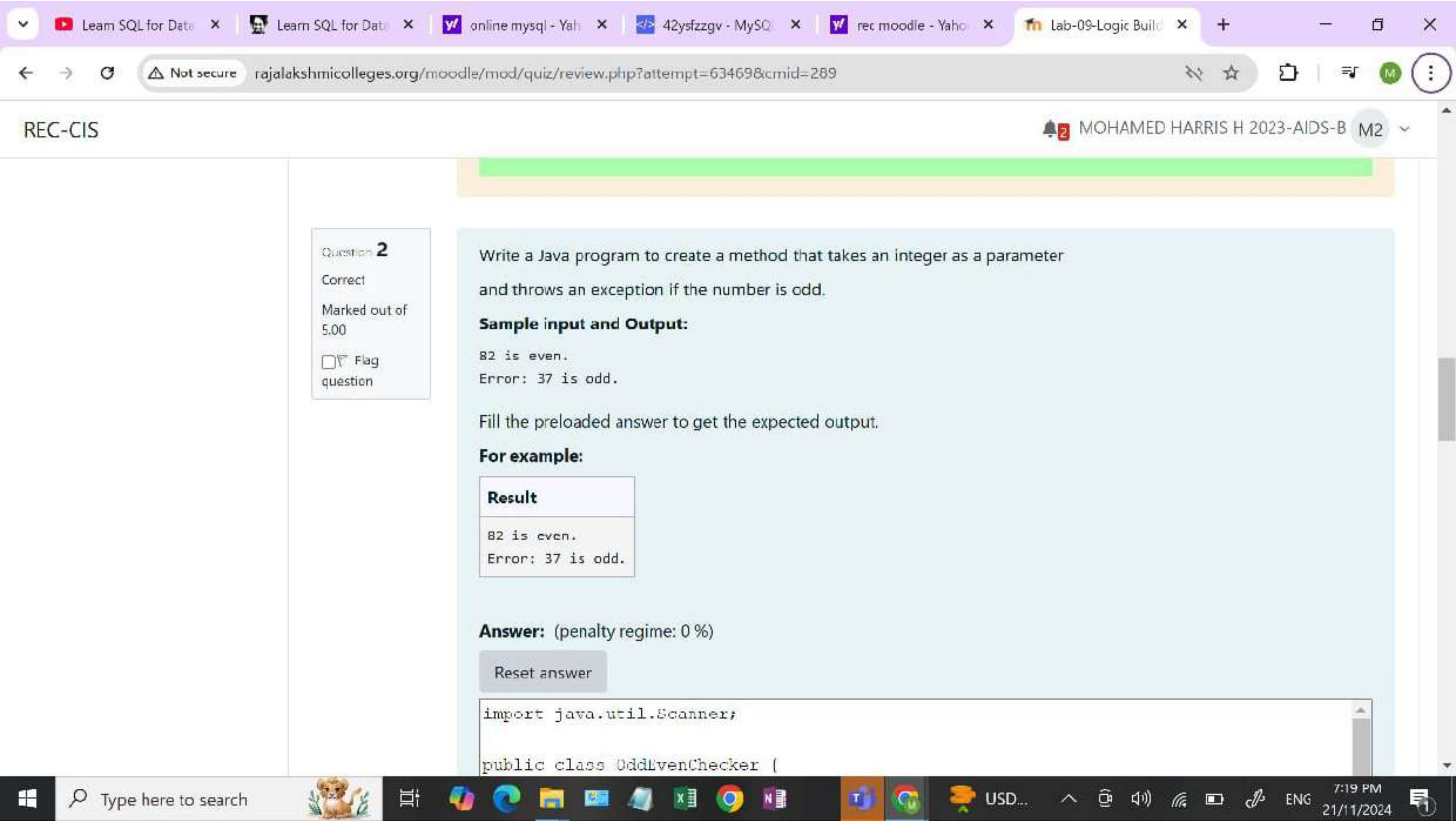
Divide the 0th index element by the 1st index element and store it.

if the 1st element is zero, it will throw an exception.

if you try to access an element beyond the array limit throws an exception.

Input:

5



Question 2

Correct

Marked out of 5.00

□ Flag question

Write a Java program to create a method that takes an integer as a parameter

and throws an exception if the number is odd.

Sample input and Output:

```
82 is even.
Error: 37 is odd.
```

Fill the preloaded answer to get the expected output.

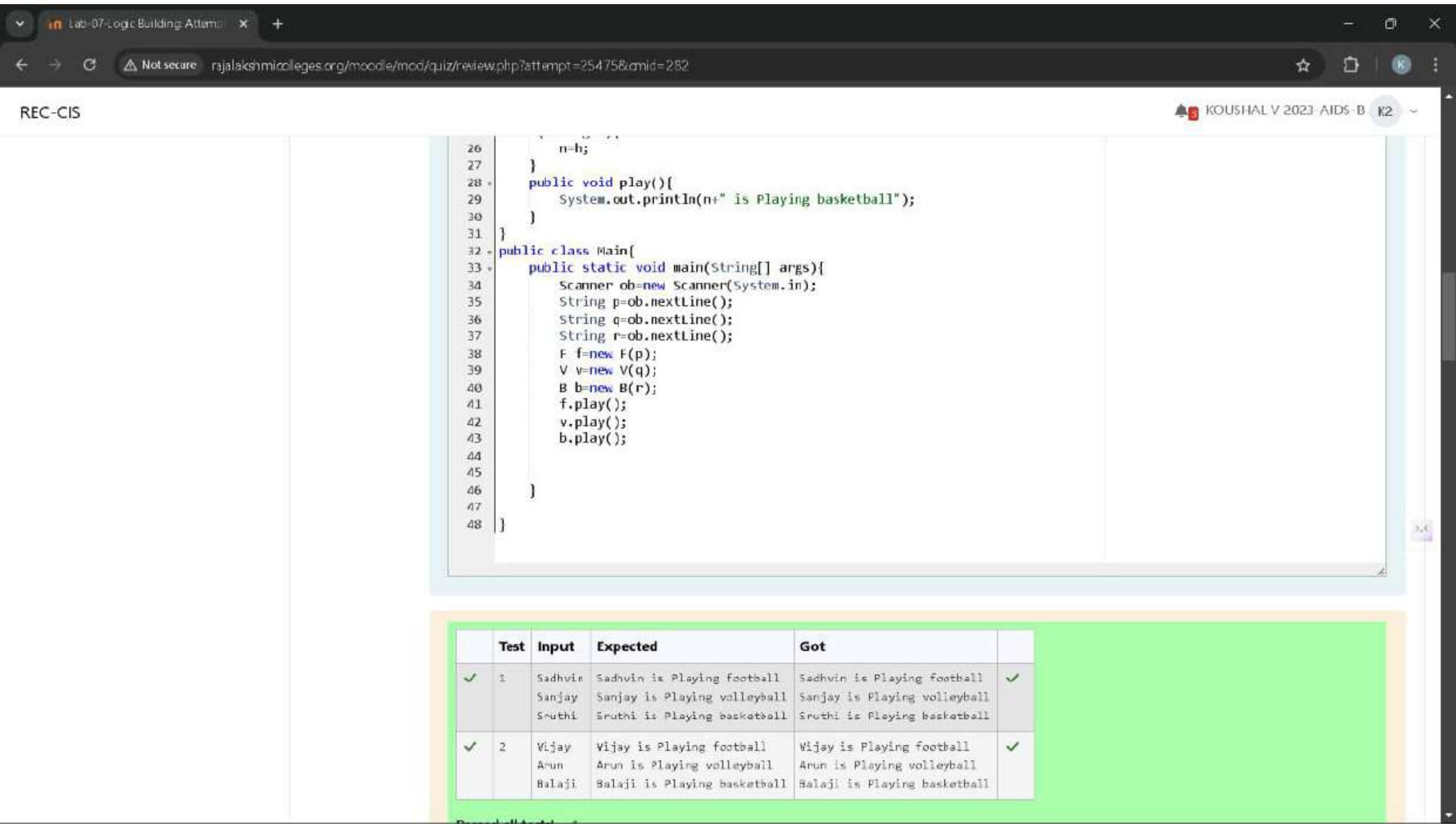
For example:

Result
82 is even. Error: 37 is odd.

Answer: (penalty regime: 0 %)

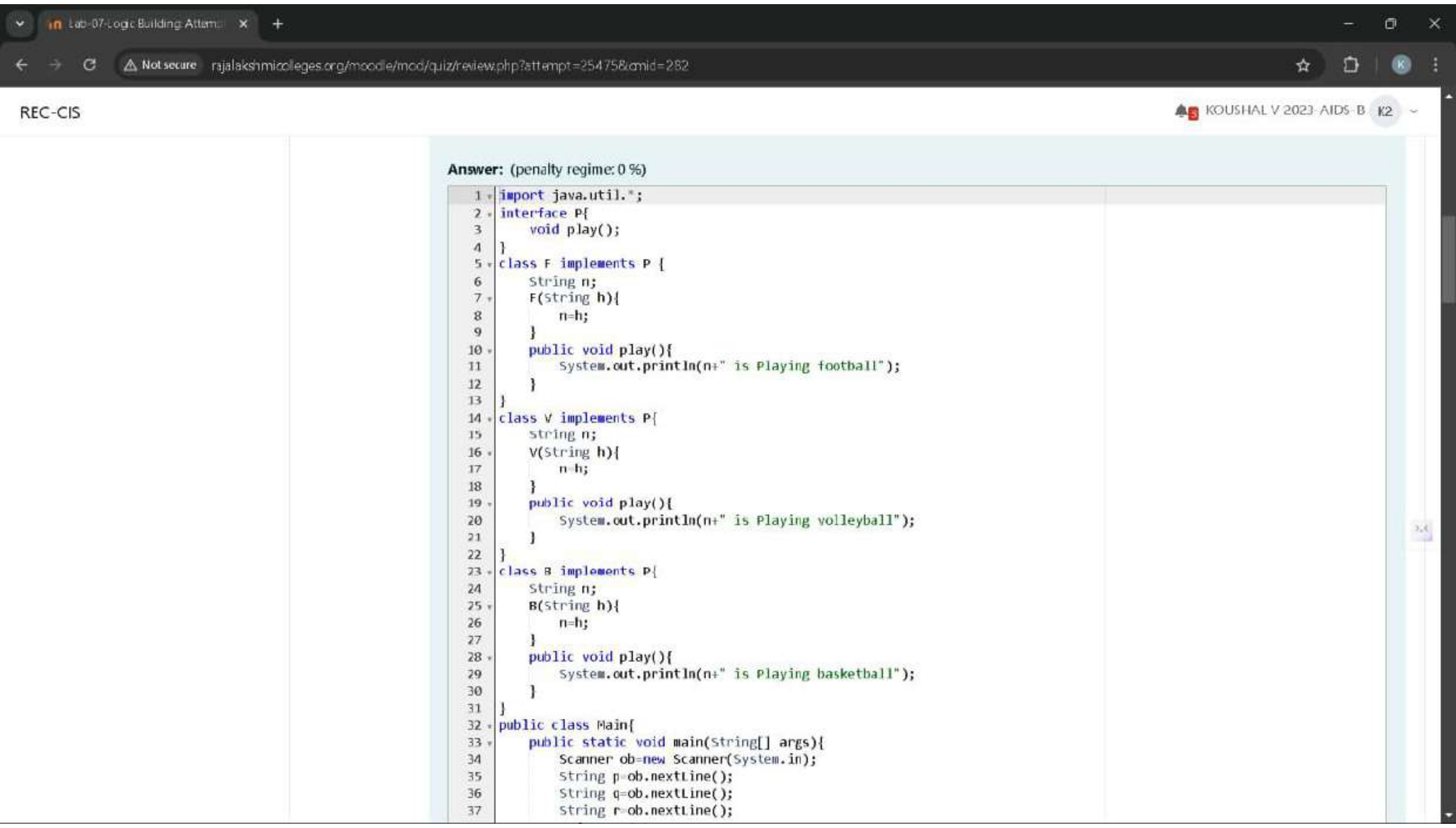
Reset answer

```
import java.util.Scanner;

public class OddEvenChecker {
```


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

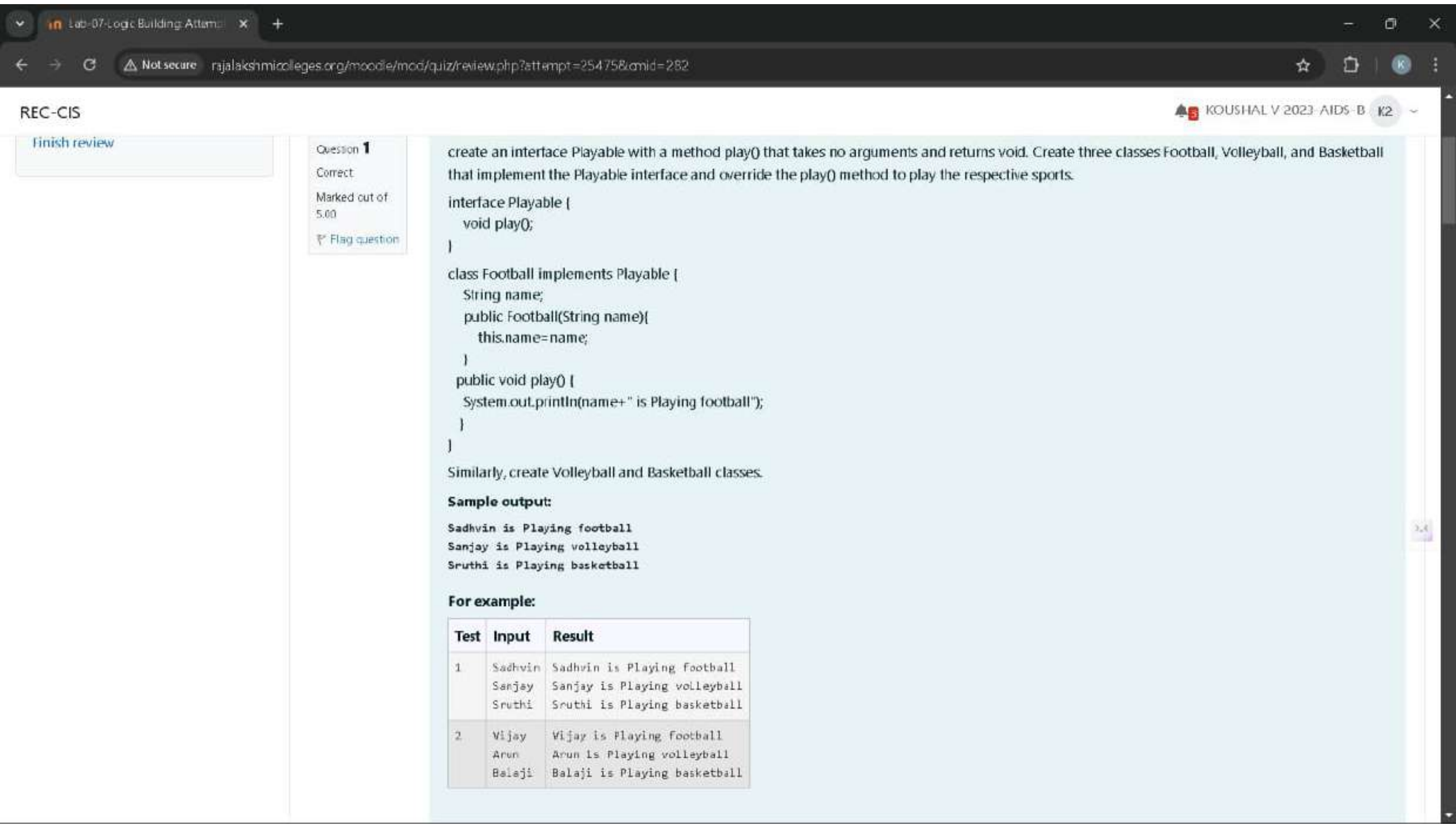
```
        n=h;
    }
    public void play(){
        System.out.println(n+" is Playing basketball");
    }
}
public class Main{
    public static void main(String[] args){
        Scanner ob=new Scanner(System.in);
        String p=ob.nextLine();
        String q=ob.nextLine();
        String r=ob.nextLine();
        F f=new F(p);
        V v=new V(q);
        B b=new B(r);
        f.play();
        v.play();
        b.play();


    }

}
```

	Test	Input	Expected	Got	
✓	1	Sadhvin Sanjay Sruthi	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball	✓
✓	2	Vijay Arun Balaji	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball	✓


Lab-07-Logic Building Attem
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2

Answer: (penalty regime: 0 %)

```java
import java.util.*;
interface P{
    void play();
}
class F implements P {
    String n;
    F(String h){
        n=h;
    }
    public void play(){
        System.out.println(n+" is Playing football");
    }
}
class V implements P{
    String n;
    V(String h){
        n=h;
    }
    public void play(){
        System.out.println(n+" is Playing volleyball");
    }
}
class B implements P{
    String n;
    B(String h){
        n=h;
    }
    public void play(){
        System.out.println(n+" is Playing basketball");
    }
}
public class Main{
    public static void main(String[] args){
        Scanner ob=new Scanner(System.in);
        String p=ob.nextLine();
        String q=ob.nextLine();
        String r=ob.nextLine();
```


Lab-07-Logic Building: Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
KOUSHAL V 2023-AIDS-B
K2
Finish review
Flag question

Question 1

Correct

Marked out of 5.00

create an interface Playable with a method play() that takes no arguments and returns void. Create three classes Football, Volleyball, and Basketball that implement the Playable interface and override the play() method to play the respective sports.

```
interface Playable {
   void play();
}
class Football implements Playable {
   String name;
   public Football(String name){
      this.name=name;
   }
  public void play() {
   System.out.println(name+" is Playing football");
  }
}
```

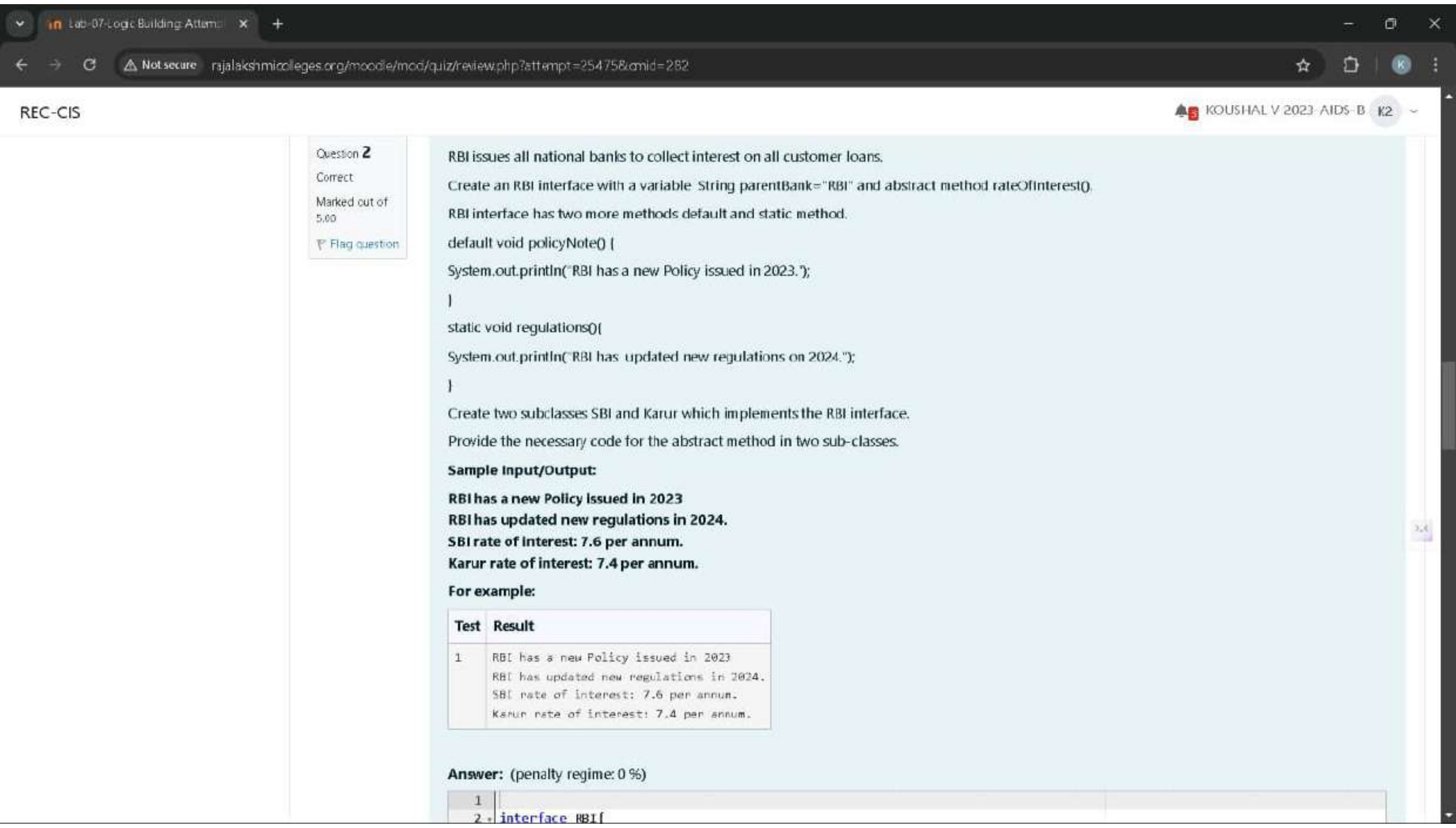
Similarly, create Volleyball and Basketball classes.

Sample output:

```
Sadhvin is Playing football
Sanjay is Playing volleyball
Sruthi is Playing basketball
```

For example:

Test	Input	Result
1	Sadhvin Sanjay Sruthi	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball
2	Vijay Arun Balaji	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball


Lab-07-Logic Building Attemp
Not secure
rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=25475&cmid=282
REC-CIS
5
KOUSHAL V 2023-AIDS-B
K2

Question **2**

Correct

Marked out of 5.00

Flag question

RBI issues all national banks to collect interest on all customer loans.

Create an RBI interface with a variable String parentBank="RBI" and abstract method rateOfInterest().

RBI interface has two more methods default and static method.

default void policyNote() {

System.out.println("RBI has a new Policy issued in 2023.");

}

static void regulations(){

System.out.println("RBI has updated new regulations on 2024.");

}

Create two subclasses SBI and Karur which implements the RBI interface.

Provide the necessary code for the abstract method in two sub-classes.

Sample Input/Output:

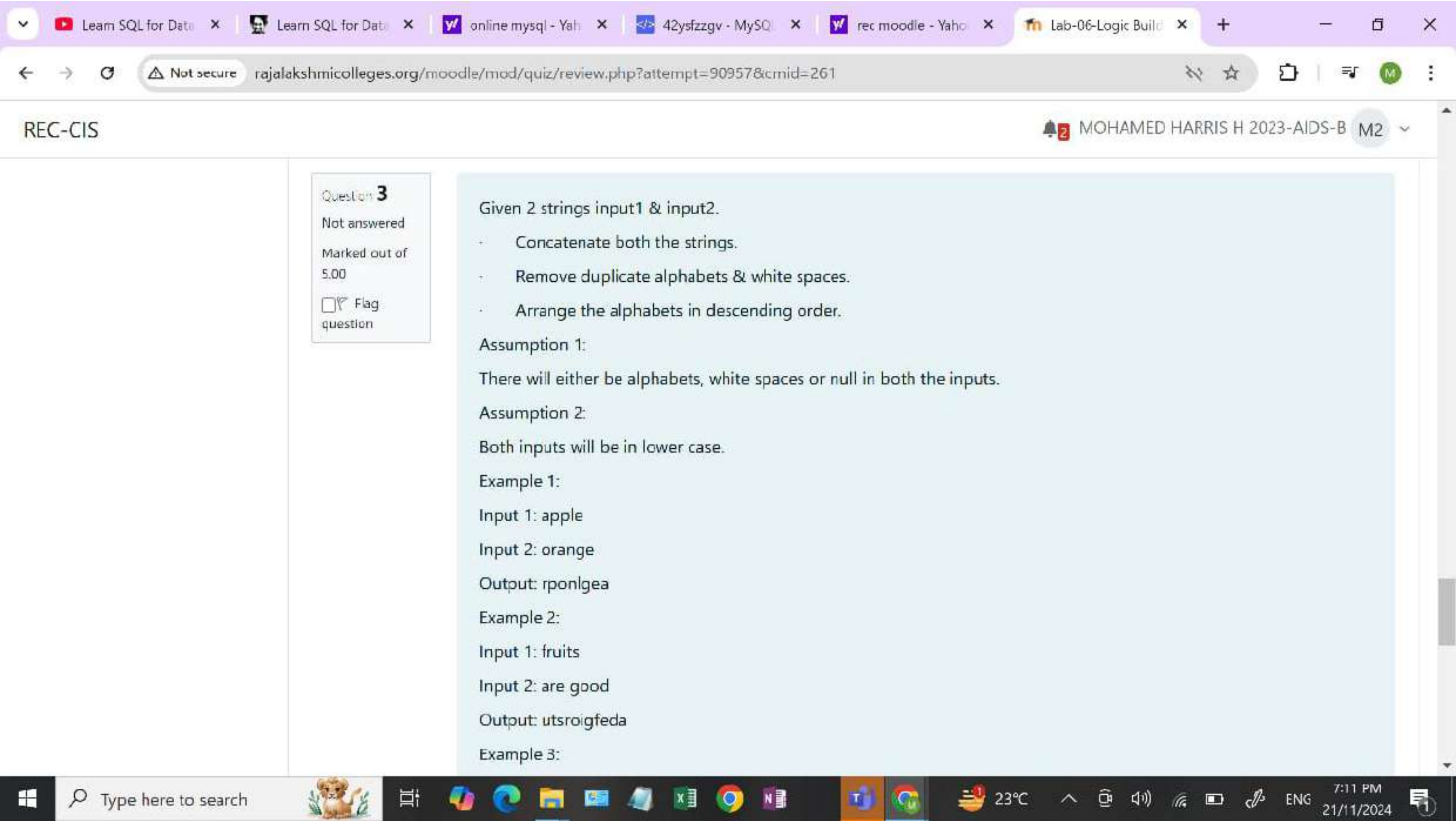
RBI has a new Policy issued in 2023
RBI has updated new regulations in 2024.
SBI rate of interest: 7.6 per annum.
Karur rate of interest: 7.4 per annum.

For example:

Test	Result
1	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.

Answer: (penalty regime: 0 %)

```

interface RBI{
```



Question 3

Not answered

Marked out of 5.00

□ Flag question

Given 2 strings input1 & input2.

- Concatenate both the strings.
- Remove duplicate alphabets & white spaces.
- Arrange the alphabets in descending order.

Assumption 1:

There will either be alphabets, white spaces or null in both the inputs.

Assumption 2:

Both inputs will be in lower case.

Example 1:

Input 1: apple

Input 2: orange

Output: rponlgea

Example 2:

Input 1: fruits

Input 2: are good

Output: utsroigfeda

Example 3: