Object Oriented Design and Programming

**Workshop2**

Go through the questions below and answer the questions:

1. Taking length and breadth of a rectangle from user and check if it is square or not.

->Source code:A computer screen with text on it

Description automatically generated

Output:  
A black screen with white text

Description automatically generated

1. A college has following rules for grading system:
   1. 40 to 50 - C
   2. 50 to 60 - C+
   3. 60 to 70 - B
   4. 70 to 80 - B+
   5. 80 to 90 - A
   6. Above 90 - A+

Ask user to enter marks and print the corresponding grade using if-else-if statement.

->Source code:

A screen shot of a computer program

Description automatically generated

Output->  
A black screen with white text

Description automatically generated

1. Determine oldest and youngest among the people taking the using input.

->Source code:  


Output->

A screen shot of a computer

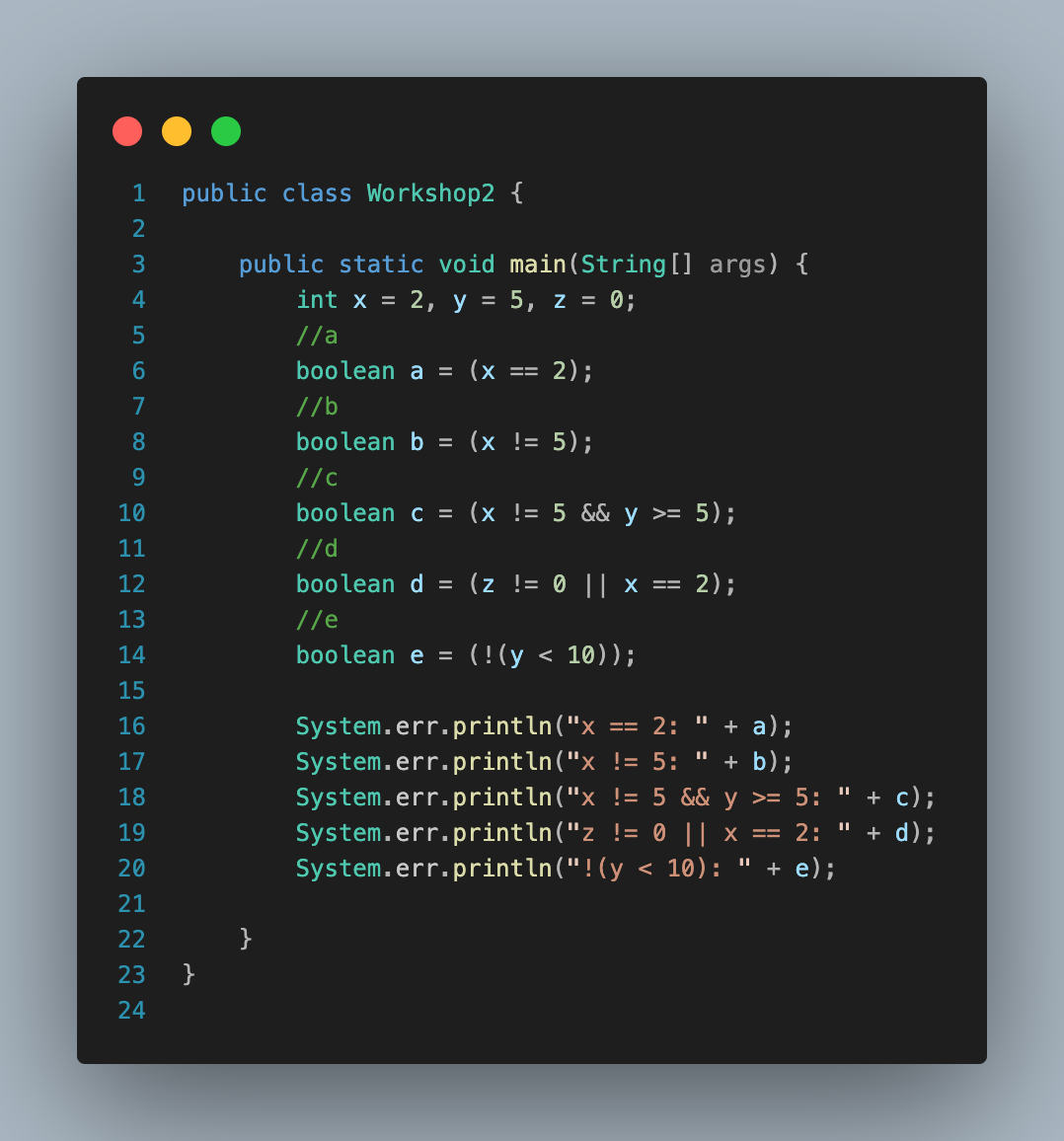
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1. If x = 2 y = 5 z = 0 then find values of the following expressions:

a. x == 2

* 1. x != 5
  2. x != 5 && y >= 5
  3. z != 0 || x == 2
  4. !(y < 10)

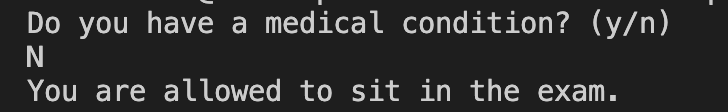
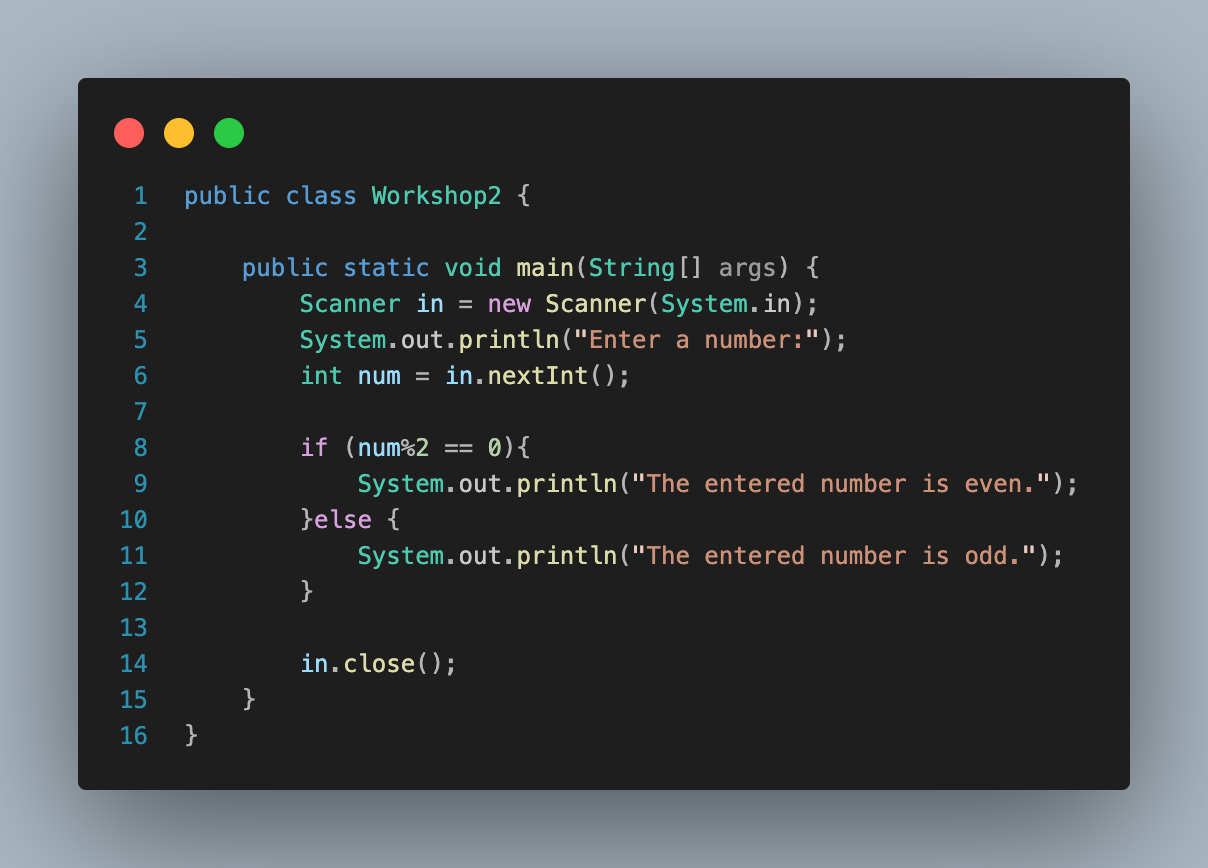
->Source code:



Output ->

A screen shot of a computer code

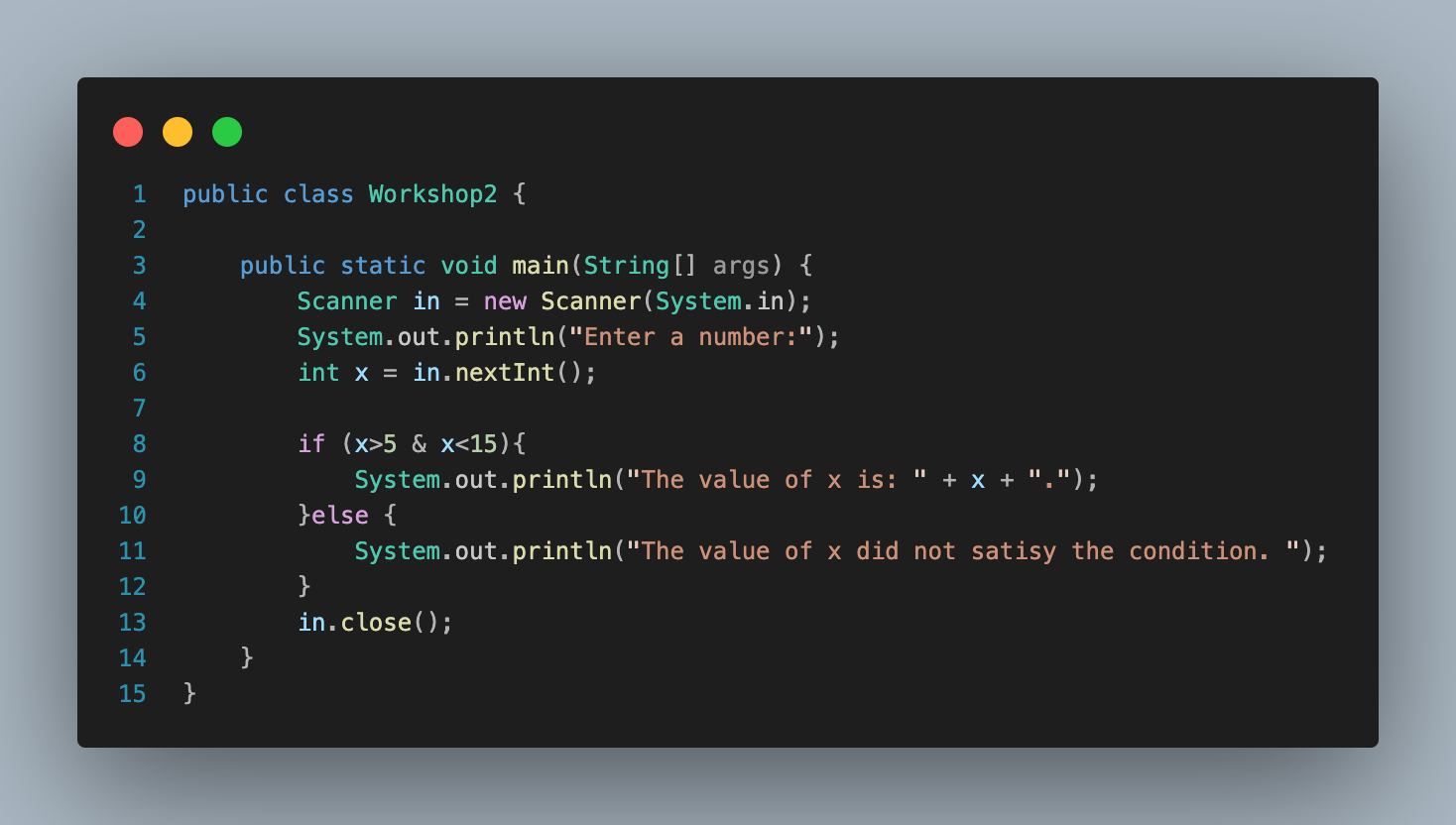
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1. Ask student if he/she has medical cause or not ('y or 'n'). if (‘y’) print you are not allowed to sit in the exam and if(‘n’’) print you can sit in the exam.  
   ->Source code:Output->  
   
2. Write a program to check the odd and even numbers using user input.  
   ->Source code:

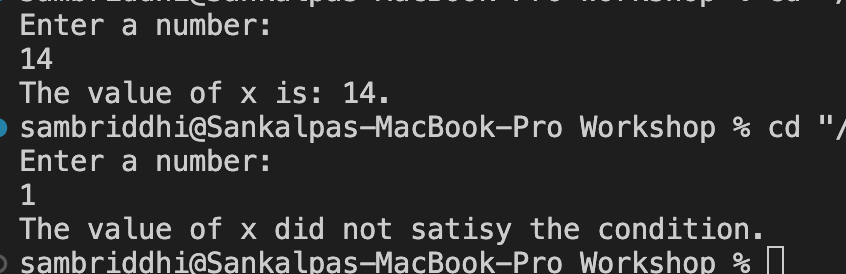
Output->  
A black background with white text

Description automatically generated

1. Write a program to print the value of x ,if and only if the value of x is x>5 and less x<15 taking user input.

->Source code:

Output->



1. Assuming the value: x=20, y=15, z=10.Complete the code below and observe the result.

if (x > y)

{

if (y > z){ System.out.println("x is greater than y and z");} //

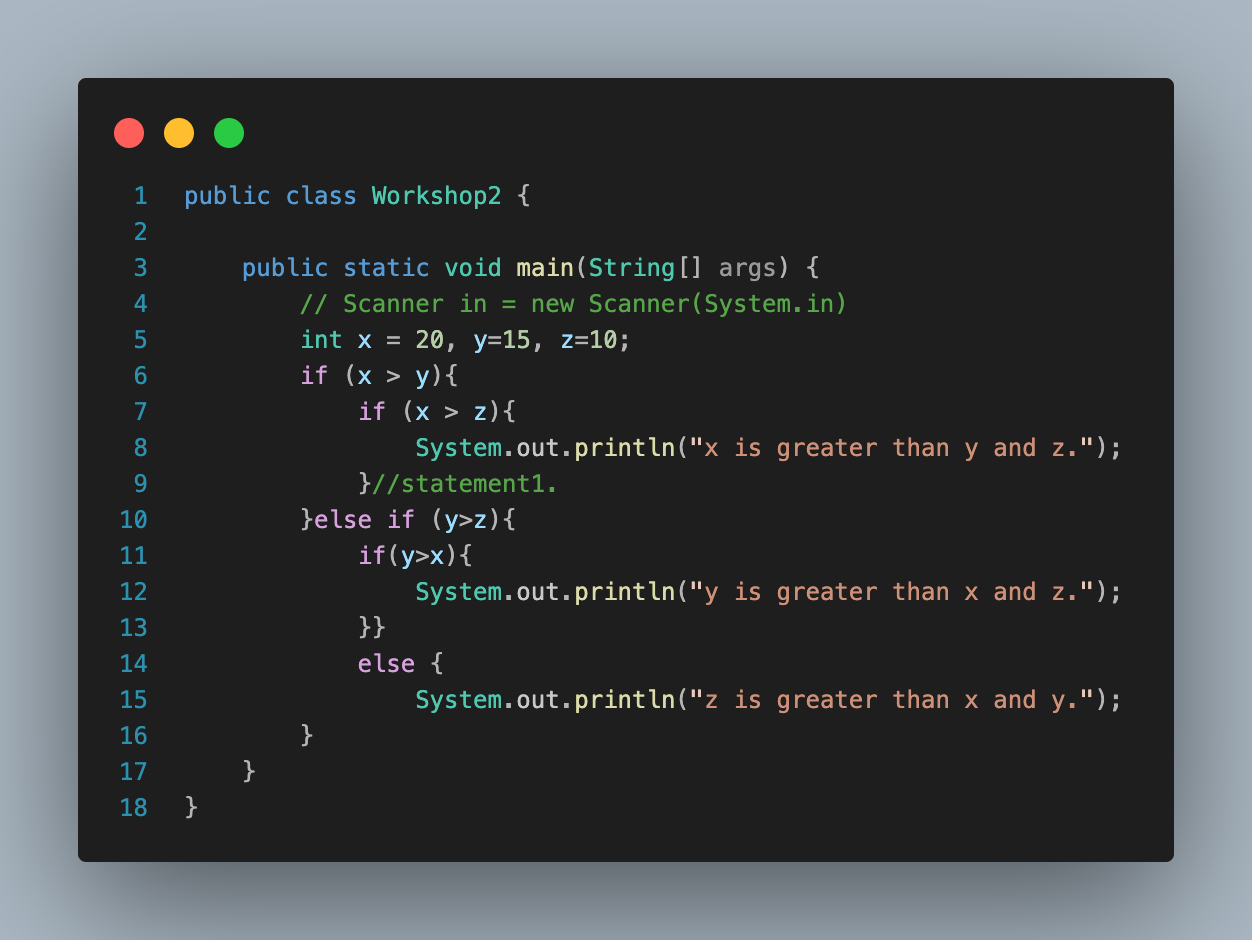
statement1.

}

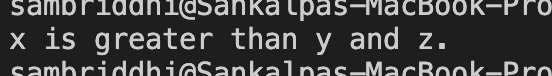
else

System.out.println("x is less than or equal to y"); // statement2.

* Source code:



Output ->



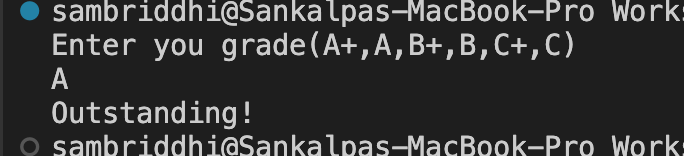
1. A college has following rules for grading system:

|  |  |
| --- | --- |
| a. grade -A+ | print ("Excellent !") |
| b. grade -A | print ("Outstanding !") |
| c. grade -B+ | print ("Good !") |
| d. grade -B | print ("Can do better !") |
| e. grade -C+ | print ("Just Passed !") |
| f. grade -C | print ("You Failed !") |

print ("Invalid grade!") for default case

Ask user to enter grade and print the corresponding grade using switch statement

->Source code:  


Output:   


1. Run the code below and observe how the break statement works.

**class** Student {

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

**int** roll\_no = 12; **switch** (i) {

**case** 1:

System.out.println("Your roll number is 10"); **break**;

**case** 2:

System.out.println("Your roll number is 12"); **break**;

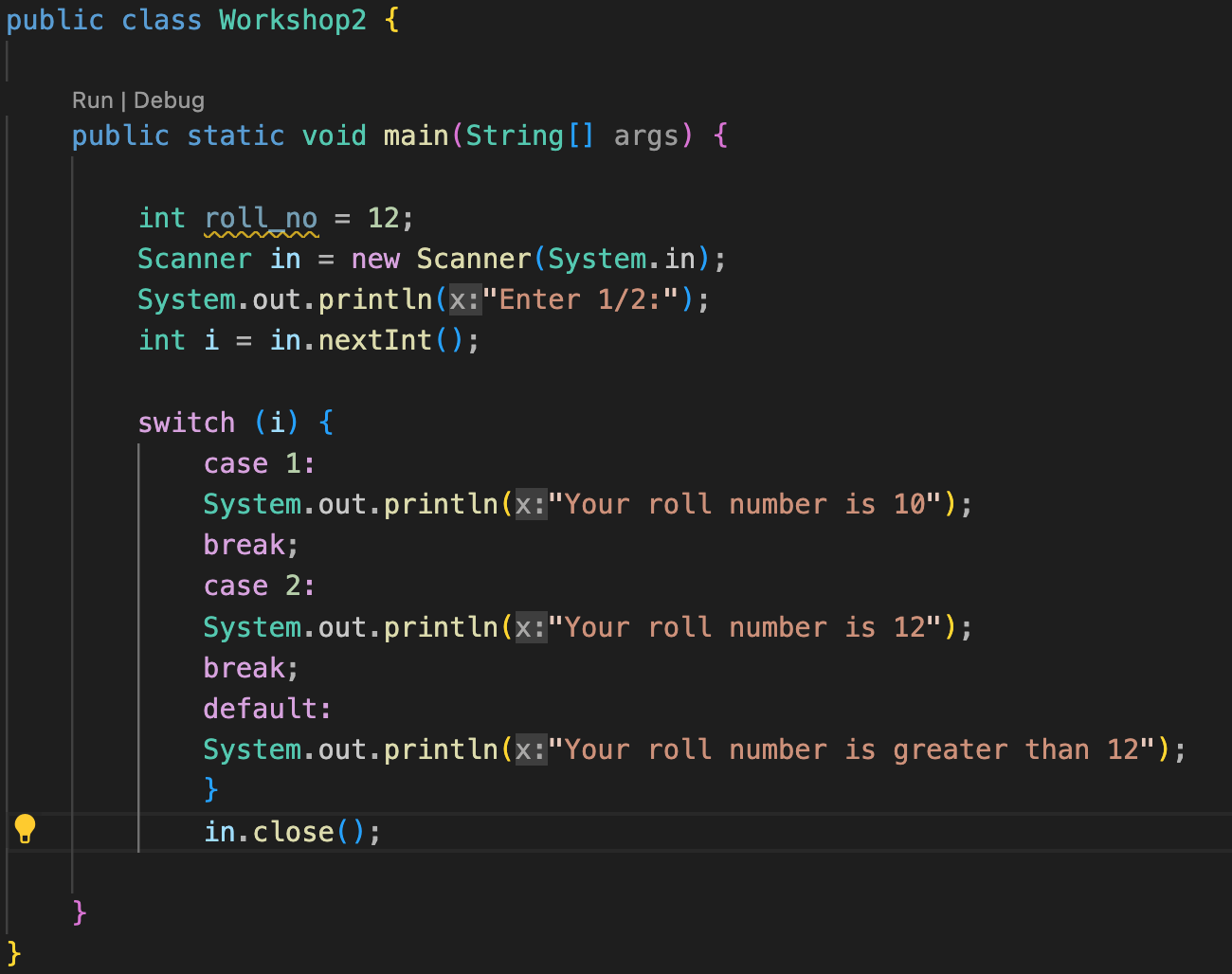
**default**:

System.out.println("Your roll number is greater than 12");

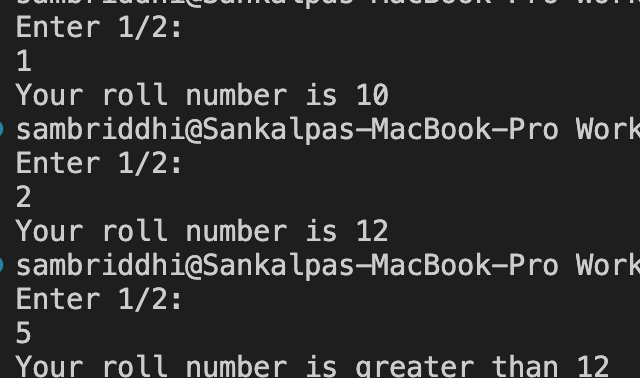
}

}

}

* Source code

Output->



11. Write a program to take two string user input and perform the following string methods and observe the result

1. length()
2. compareTo()
3. charAt()
4. substring()
5. Equals
6. toUpperCase()
7. toLowerCase()

->Source code:



Output:

A screen shot of a computer

Description automatically generated