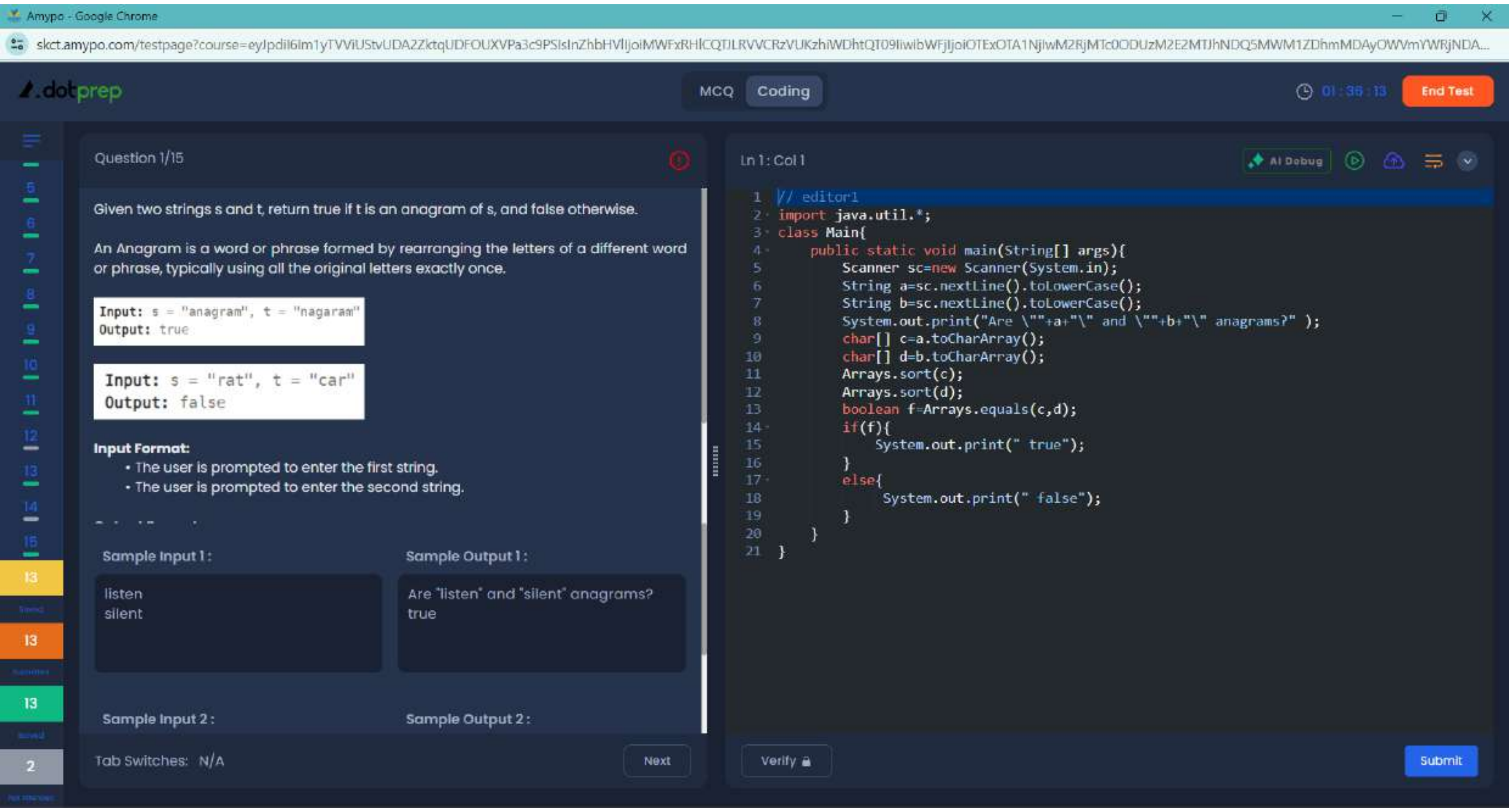
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AI Debug
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Question 1/15

Given two strings s and t, return true if t is an anagram of s, and false otherwise.

An Anagram is a word or phrase formed by rearranging the letters of a different word or phrase, typically using all the original letters exactly once.

```
Input: s = "anagram", t = "nagaram"
Output: true
```

```
Input: s = "rat", t = "car"
Output: false
```

Input Format:

- The user is prompted to enter the first string.
- The user is prompted to enter the second string.

Sample Input 1 :

```
listen
silent
```

Sample Output 1 :

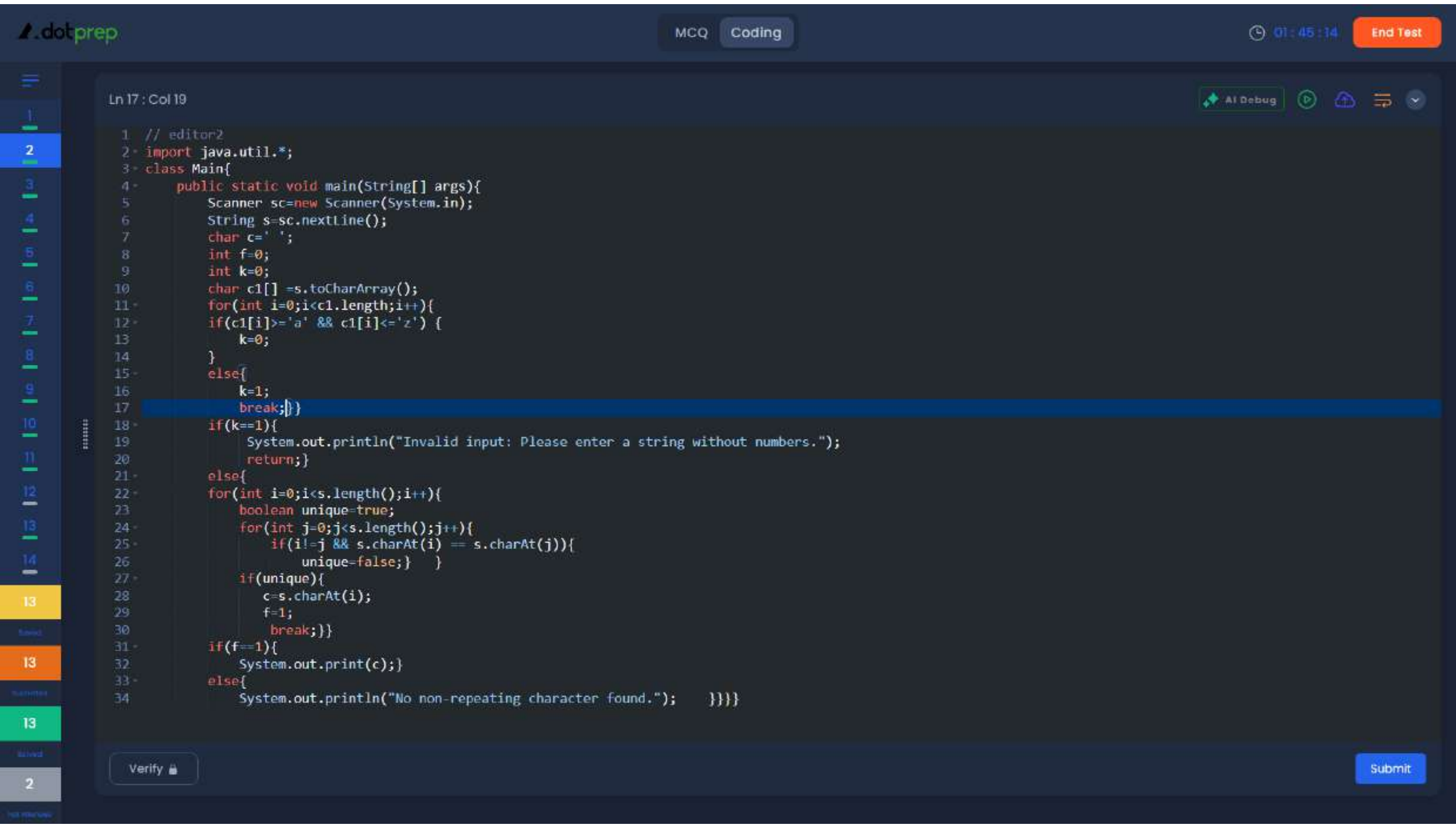
```
Are "listen" and "silent" anagrams?
true
```

Sample Input 2 :

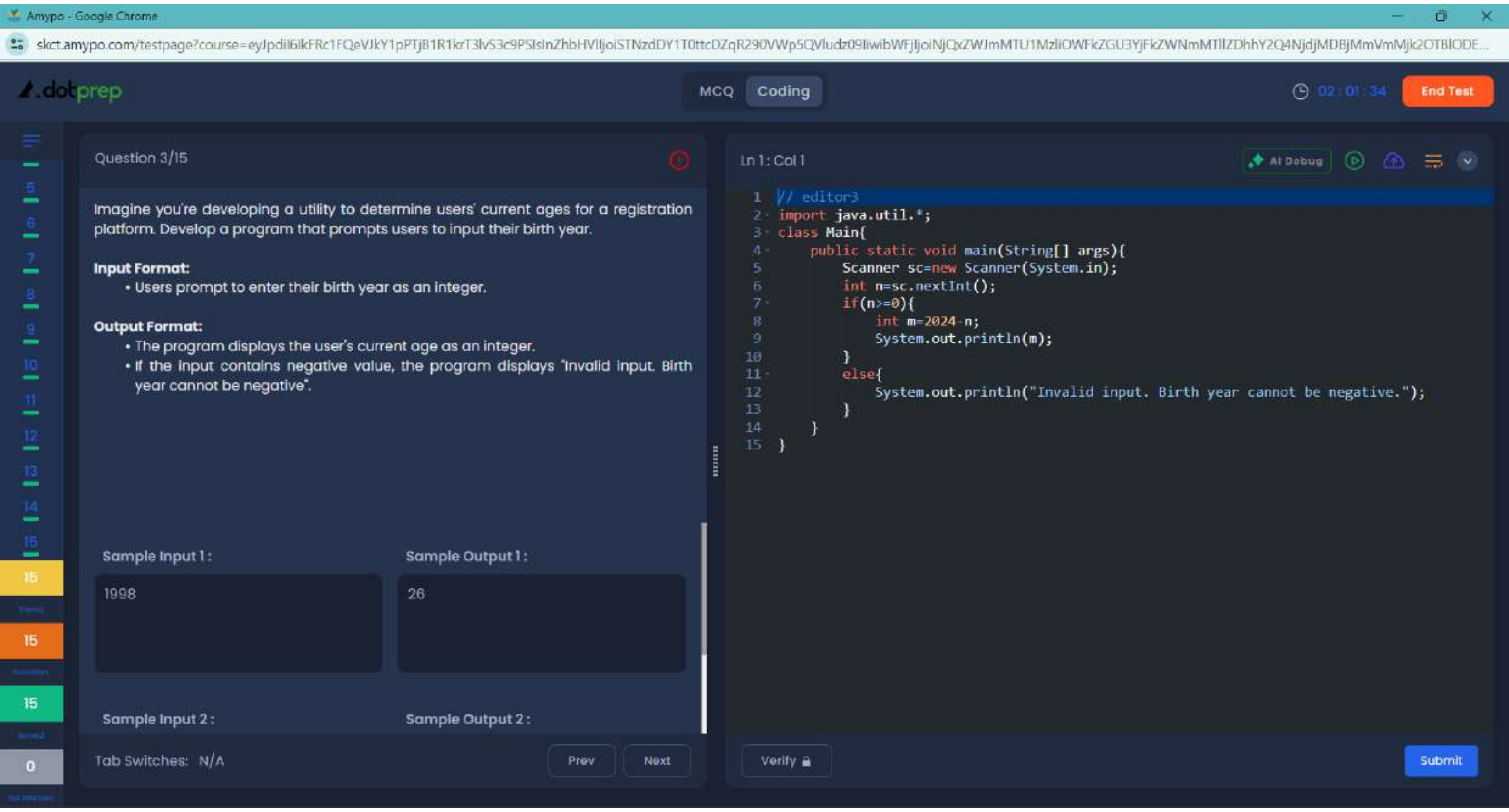
Sample Output 2 :

Tab Switches: N/A

```java
// editor1
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String a=sc.nextLine().toLowerCase();
        String b=sc.nextLine().toLowerCase();
        System.out.print("Are \""+a+"\" and \""+b+"\" anagrams?" );
        char[] c=a.toCharArray();
        char[] d=b.toCharArray();
        Arrays.sort(c);
        Arrays.sort(d);
        boolean f=Arrays.equals(c,d);
        if(f){
            System.out.print(" true");
        }
        else{
             System.out.print(" false");
        }
    }
}
```



```java
// editor2
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine();
        char c=' ';
        int f=0;
        int k=0;
        char c1[] =s.toCharArray();
        for(int i=0;i<c1.length;i++){
        if(c1[i]>='a' && c1[i]<='z') {
            k=0;
        }
        else{
            k=1;
            break;}}
        if(k==1){
             System.out.println("Invalid input: Please enter a string without numbers.");
             return;}
        else{
        for(int i=0;i<s.length();i++){
            boolean unique=true;
            for(int j=0;j<s.length();j++){
                if(i!=j && s.charAt(i) == s.charAt(j)){
                    unique=false;}    }
            if(unique){
               c=s.charAt(i);
               f=1;
                break;}}
        if(f==1){
            System.out.print(c);}
        else{
            System.out.println("No non-repeating character found.");    }}}}
```



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Imagine you're developing a utility to determine users' current ages for a registration platform. Develop a program that prompts users to input their birth year.

Input Format:

- Users prompt to enter their birth year as an integer.

Output Format:

- The program displays the user's current age as an integer.
- If the input contains negative value, the program displays "Invalid input. Birth year cannot be negative".

Sample Input 1 :

```
1998
```

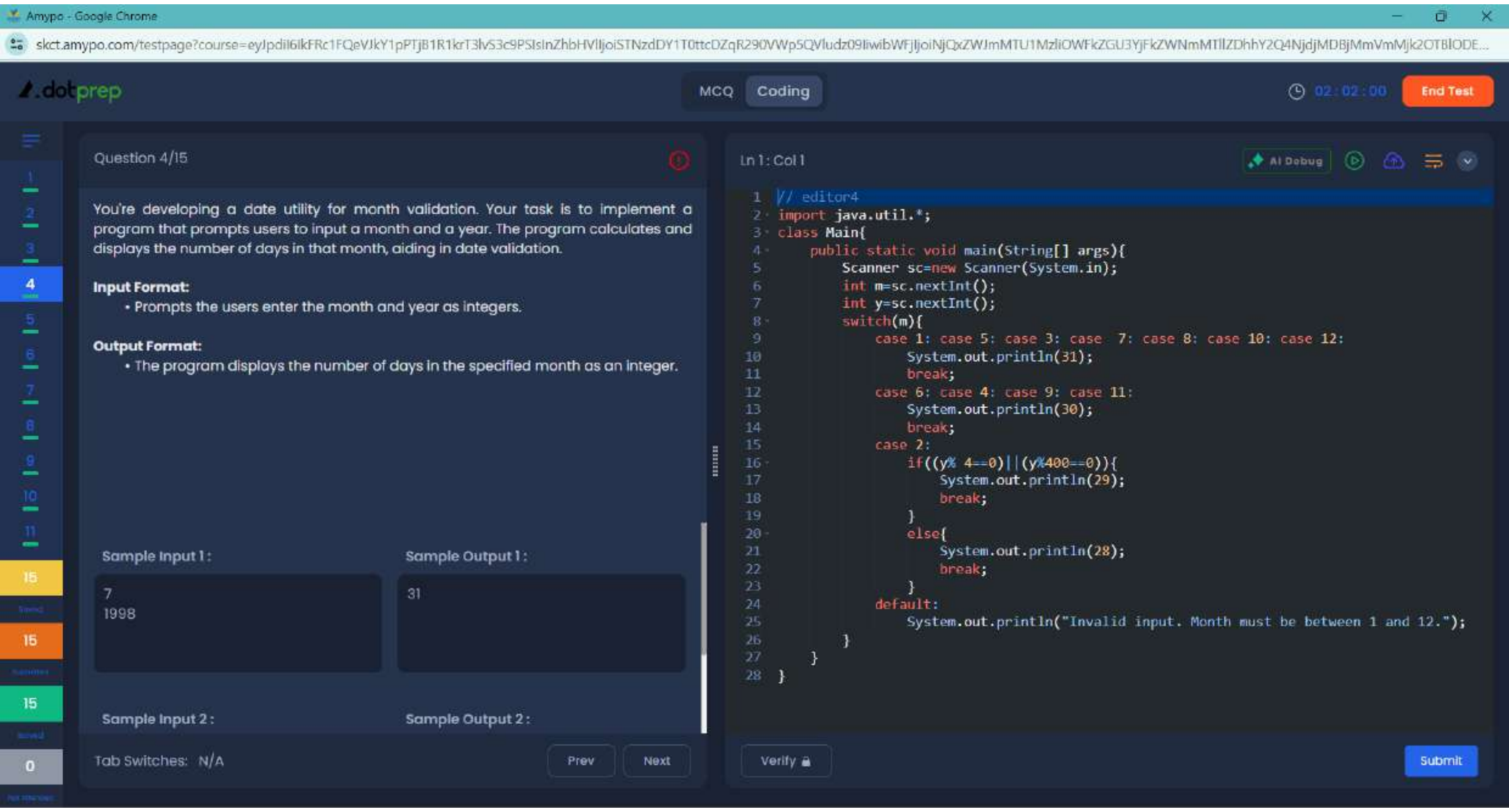
Sample Output 1 :

```
26
```

Sample Input 2 :

Sample Output 2 :

```
// editor3
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        if(n>=0){
            int m=2024-n;
            System.out.println(m);
        }
        else{
            System.out.println("Invalid input. Birth year cannot be negative.");
        }
    }
}
```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Question 4/15

You're developing a date utility for month validation. Your task is to implement a program that prompts users to input a month and a year. The program calculates and displays the number of days in that month, aiding in date validation.

Input Format:

- Prompts the users enter the month and year as integers.

Output Format:

- The program displays the number of days in the specified month as an integer.

Sample Input 1 :

```
7
1998
```

Sample Output 1 :

```
31
```

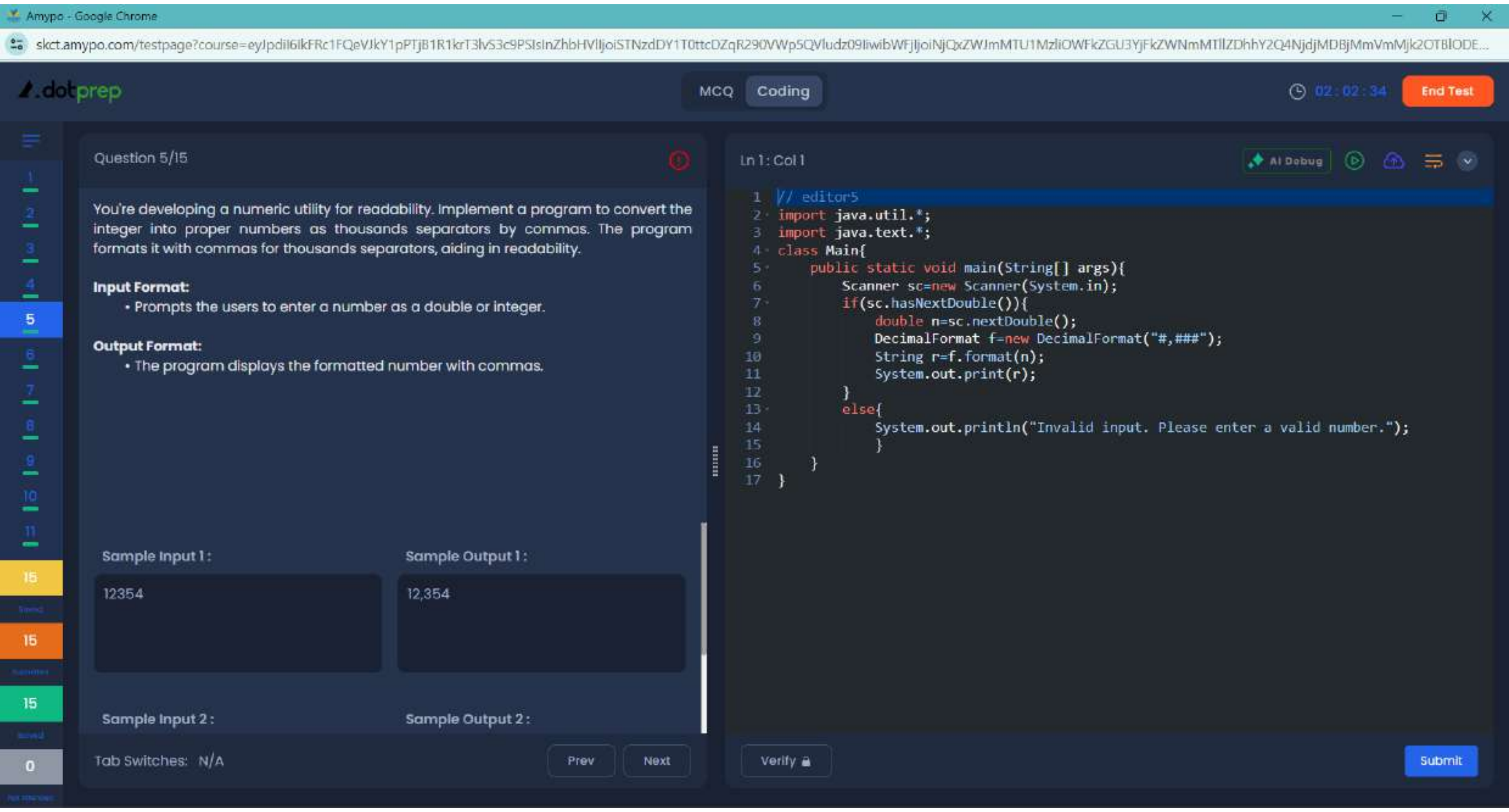
Sample Input 2 :

Sample Output 2 :

Tab Switches: N/A

Ln 1 : Col 1

```
// editor4
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        int m=sc.nextInt();
        int y=sc.nextInt();
        switch(m){
            case 1: case 5: case 3: case  7: case 8: case 10: case 12:
                System.out.println(31);
                break;
            case 6: case 4: case 9: case 11:
                System.out.println(30);
                break;
            case 2:
                if((y% 4==0)||(y%400==0)){
                    System.out.println(29);
                    break;
                }
                else{
                    System.out.println(28);
                    break;
                }
            default:
                System.out.println("Invalid input. Month must be between 1 and 12.");
        }
    }
}
```



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Question 5/15

You're developing a numeric utility for readability. Implement a program to convert the integer into proper numbers as thousands separators by commas. The program formats it with commas for thousands separators, aiding in readability.

Input Format:

- Prompts the users to enter a number as a double or integer.

Output Format:

- The program displays the formatted number with commas.

Sample Input 1 :

```
12354
```

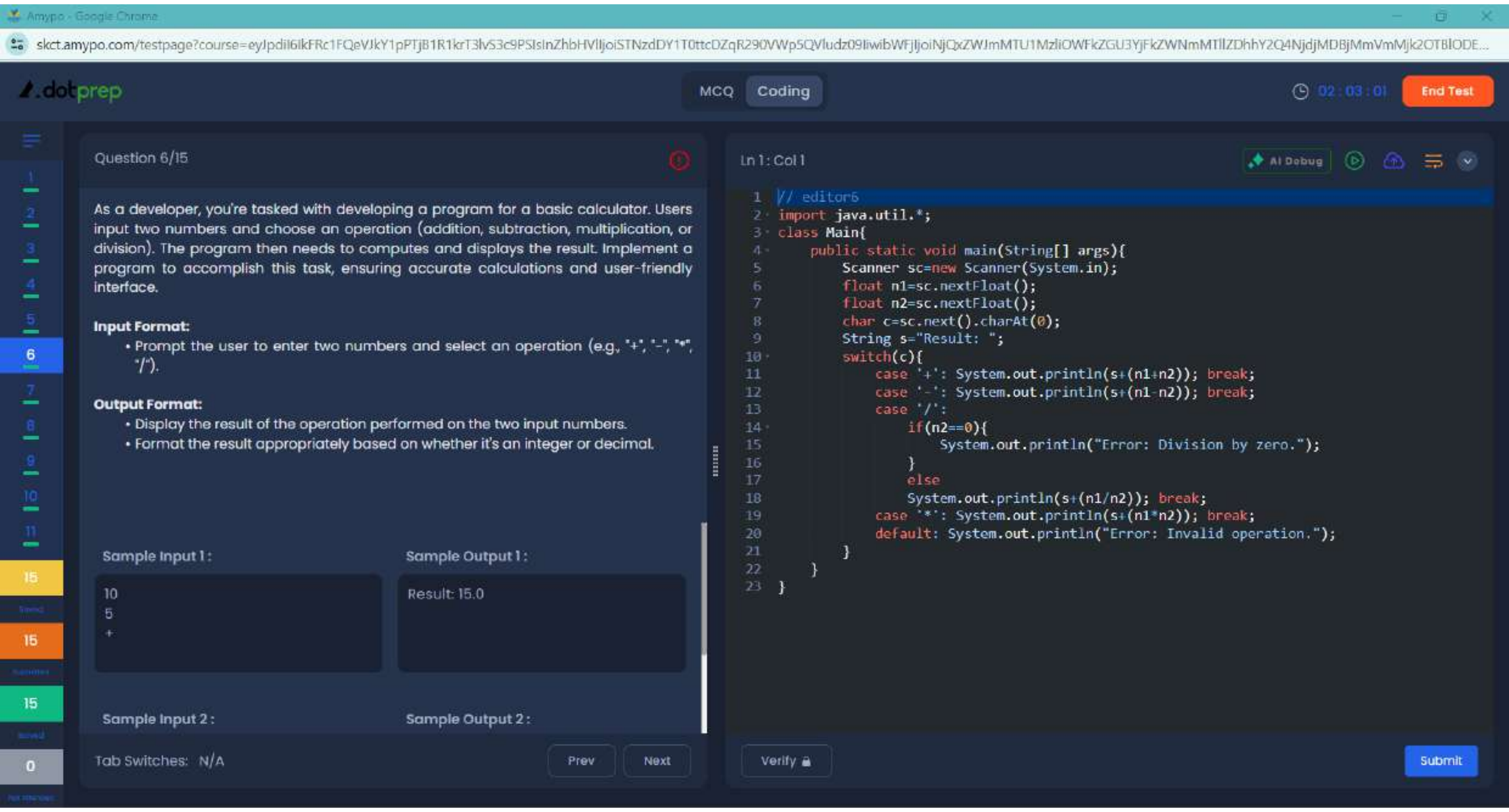
Sample Output 1 :

```
12,354
```

Sample Input 2 :

Sample Output 2 :

```
// editor5
import java.util.*;
import java.text.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        if(sc.hasNextDouble()){
            double n=sc.nextDouble();
            DecimalFormat f=new DecimalFormat("#,###");
            String r=f.format(n);
            System.out.print(r);
        }
        else{
            System.out.println("Invalid input. Please enter a valid number.");
            }
    }
}
```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Question 6/15

As a developer, you're tasked with developing a program for a basic calculator. Users input two numbers and choose an operation (addition, subtraction, multiplication, or division). The program then needs to computes and displays the result. Implement a program to accomplish this task, ensuring accurate calculations and user-friendly interface.

Input Format:

- Prompt the user to enter two numbers and select an operation (e.g., "+", "-", "*", "/").

Output Format:

- Display the result of the operation performed on the two input numbers.
- Format the result appropriately based on whether it's an integer or decimal.

Sample Input 1 :

```
10
5
+
```

Sample Output 1 :

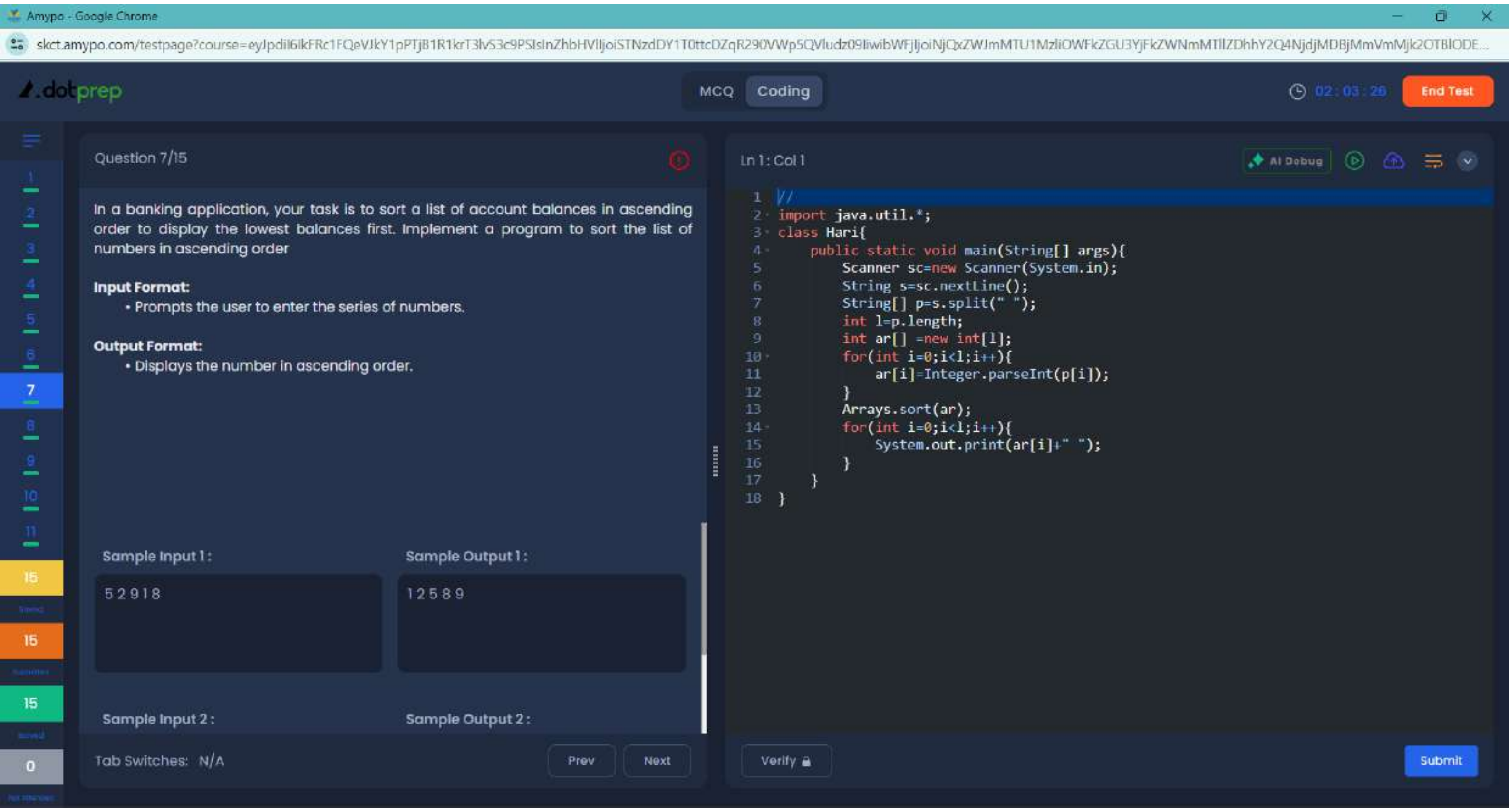
```
Result: 15.0
```

Sample Input 2 :

Sample Output 2 :

Tab Switches: N/A

```
// editor6
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        float n1=sc.nextFloat();
        float n2=sc.nextFloat();
        char c=sc.next().charAt(0);
        String s="Result: ";
        switch(c){
            case '+': System.out.println(s+(n1+n2)); break;
            case '-': System.out.println(s+(n1-n2)); break;
            case '/':
                if(n2==0){
                    System.out.println("Error: Division by zero.");
                }
                else
                System.out.println(s+(n1/n2)); break;
            case '*': System.out.println(s+(n1*n2)); break;
            default: System.out.println("Error: Invalid operation.");
        }
    }
}
```



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Question 7/15

In a banking application, your task is to sort a list of account balances in ascending order to display the lowest balances first. Implement a program to sort the list of numbers in ascending order

Input Format:

- Prompts the user to enter the series of numbers.

Output Format:

- Displays the number in ascending order.

Sample Input 1 :

```
5 2 9 1 8
```

Sample Output 1 :

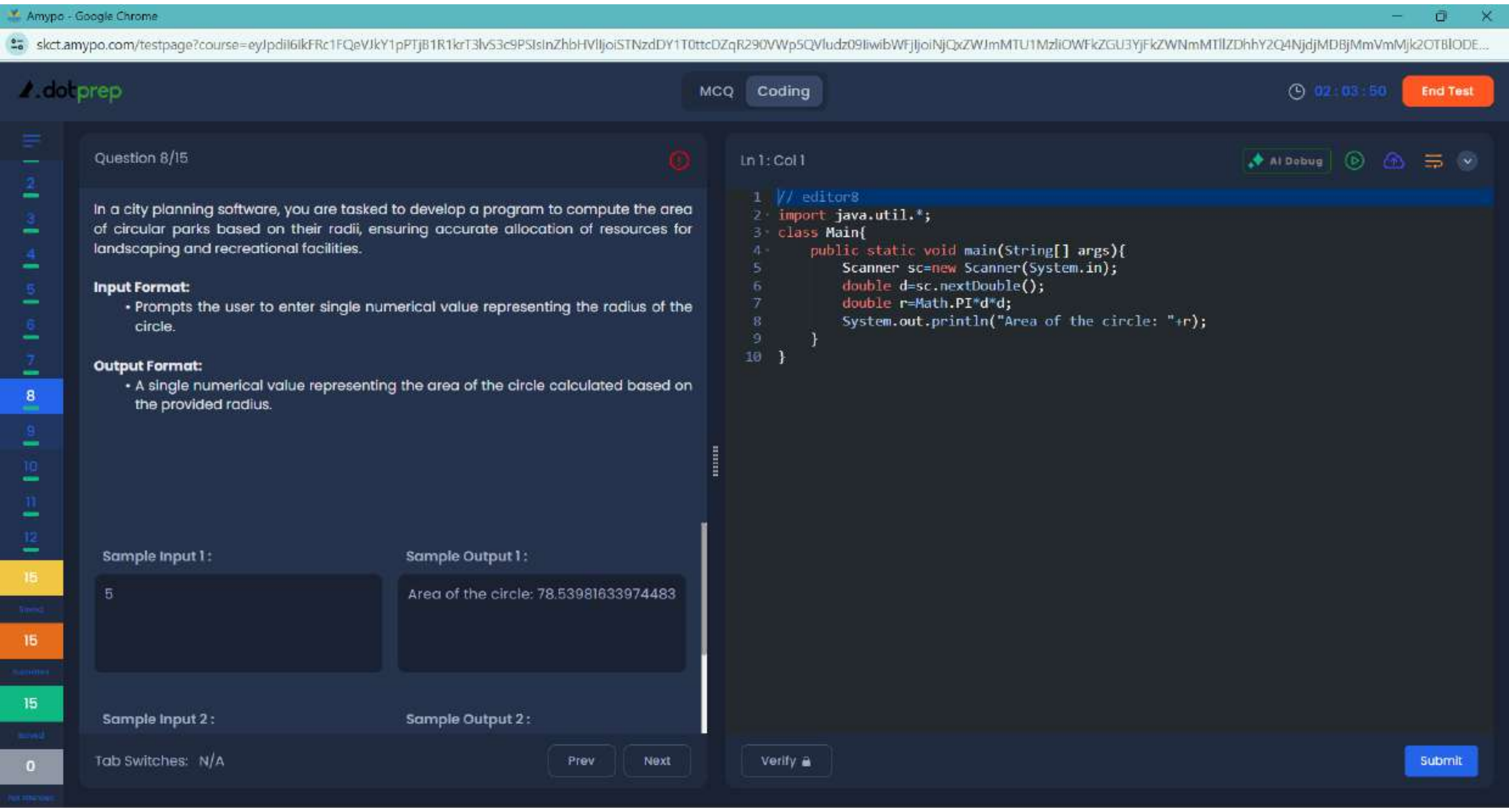
```
1 2 5 8 9
```

Sample Input 2 :

Sample Output 2 :

Tab Switches: N/A

```
//
import java.util.*;
class Hari{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine();
        String[] p=s.split(" ");
        int l=p.length;
        int ar[] =new int[l];
        for(int i=0;i<l;i++){
            ar[i]=Integer.parseInt(p[i]);
        }
        Arrays.sort(ar);
        for(int i=0;i<l;i++){
            System.out.print(ar[i]+" ");
        }
    }
}
```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Question 8/15

In a city planning software, you are tasked to develop a program to compute the area of circular parks based on their radii, ensuring accurate allocation of resources for landscaping and recreational facilities.

Input Format:

- Prompts the user to enter single numerical value representing the radius of the circle.

Output Format:

- A single numerical value representing the area of the circle calculated based on the provided radius.

Sample Input 1 :

```
5
```

Sample Output 1 :

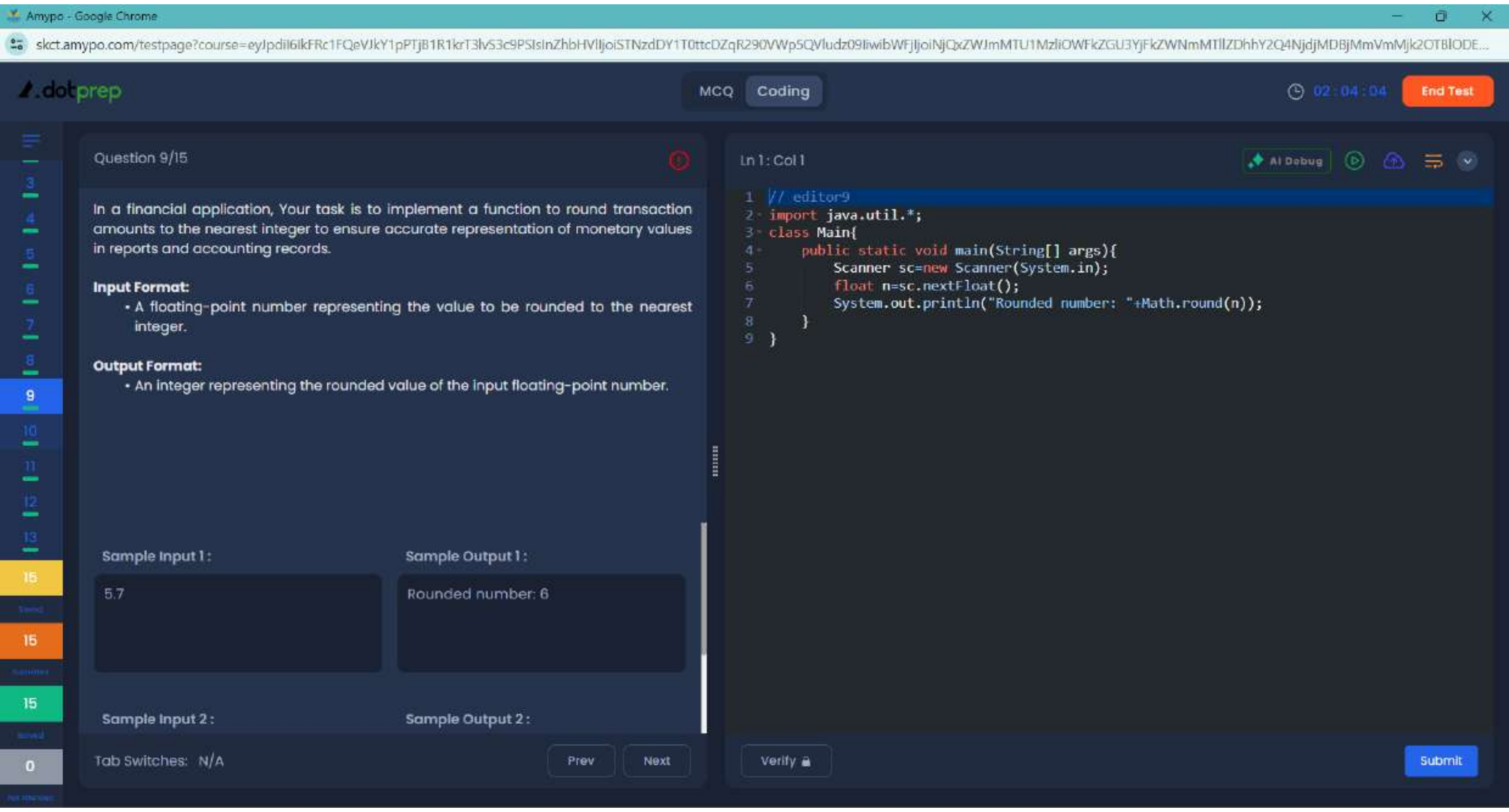
```
Area of the circle: 78.53981633974483
```

Sample Input 2 :

Sample Output 2 :

Tab Switches: N/A

```
// editor8
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        double d=sc.nextDouble();
        double r=Math.PI*d*d;
        System.out.println("Area of the circle: "+r);
    }
}
```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Question 9/15

In a financial application, Your task is to implement a function to round transaction amounts to the nearest integer to ensure accurate representation of monetary values in reports and accounting records.

Input Format:

- A floating-point number representing the value to be rounded to the nearest integer.

Output Format:

- An integer representing the rounded value of the input floating-point number.

Sample Input 1 :

```
5.7
```

Sample Output 1 :

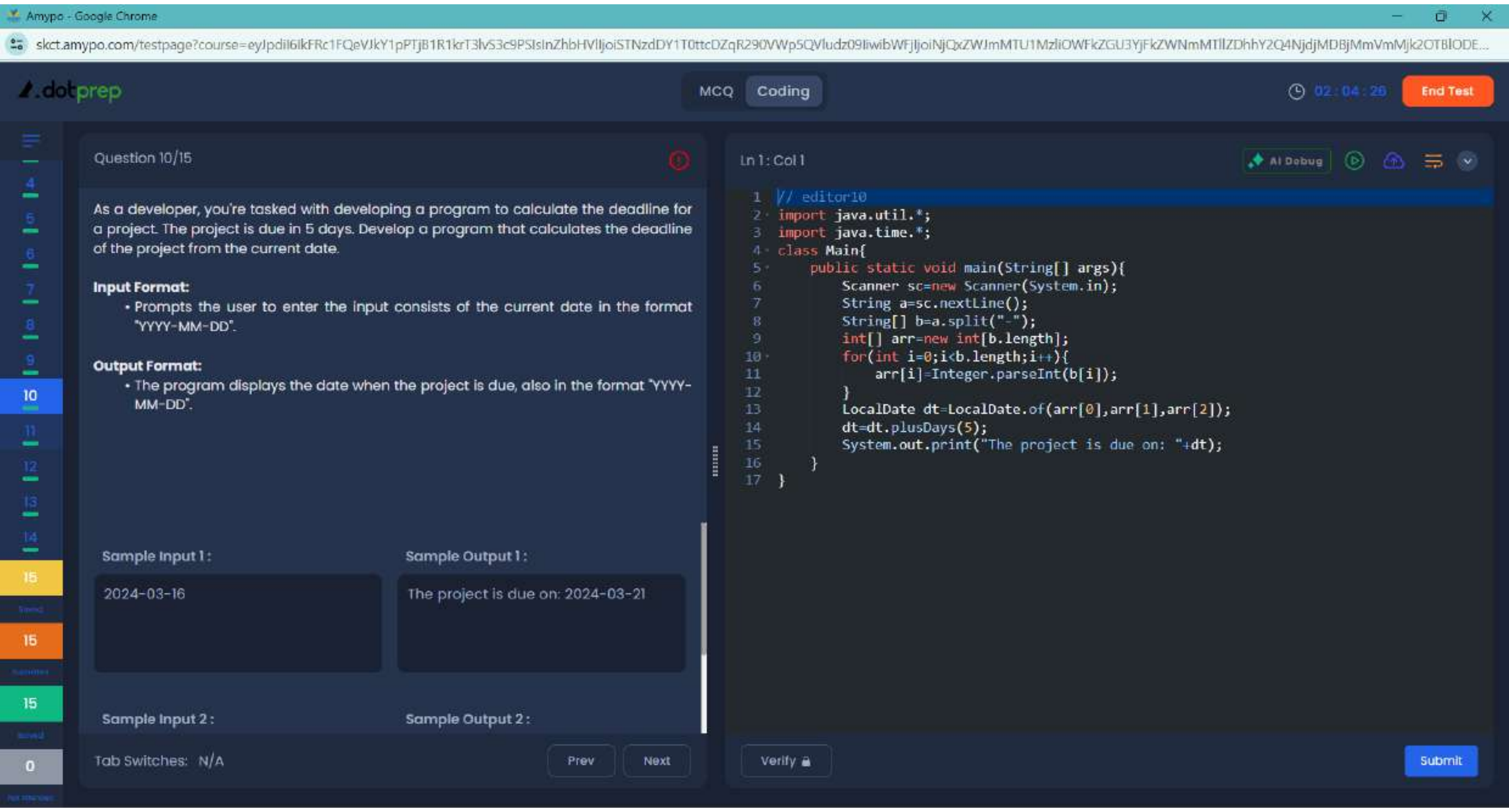
```
Rounded number: 6
```

Sample Input 2 :

Sample Output 2 :

Tab Switches: N/A

```java
// editor9
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        float n=sc.nextFloat();
        System.out.println("Rounded number: "+Math.round(n));
    }
}
```



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Question 10/15

As a developer, you're tasked with developing a program to calculate the deadline for a project. The project is due in 5 days. Develop a program that calculates the deadline of the project from the current date.

Input Format:

- Prompts the user to enter the input consists of the current date in the format "YYYY-MM-DD".

Output Format:

- The program displays the date when the project is due, also in the format "YYYY-MM-DD".

Sample Input 1 :

```
2024-03-16
```

Sample Output 1 :

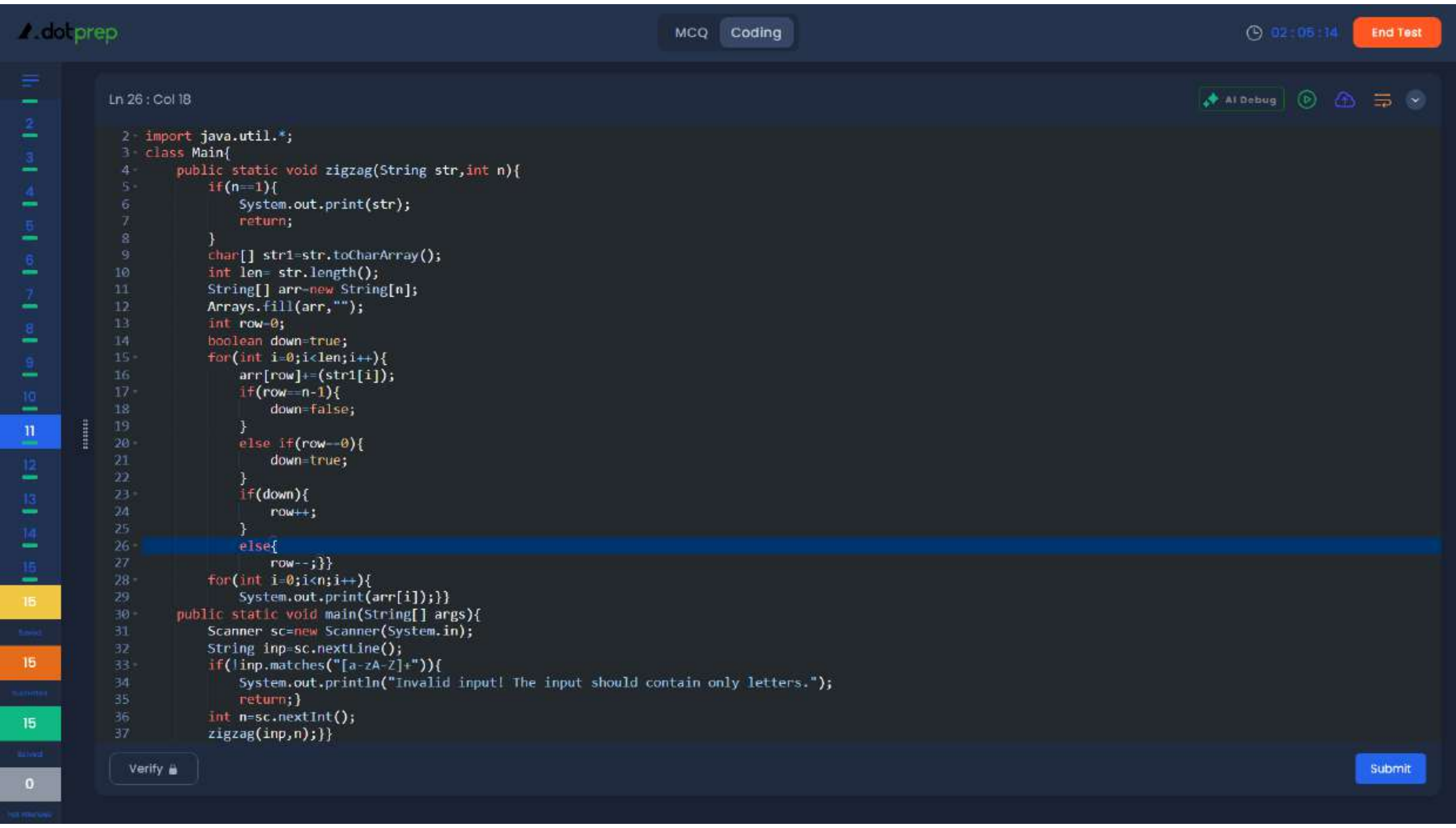
```
The project is due on: 2024-03-21
```

Sample Input 2 :

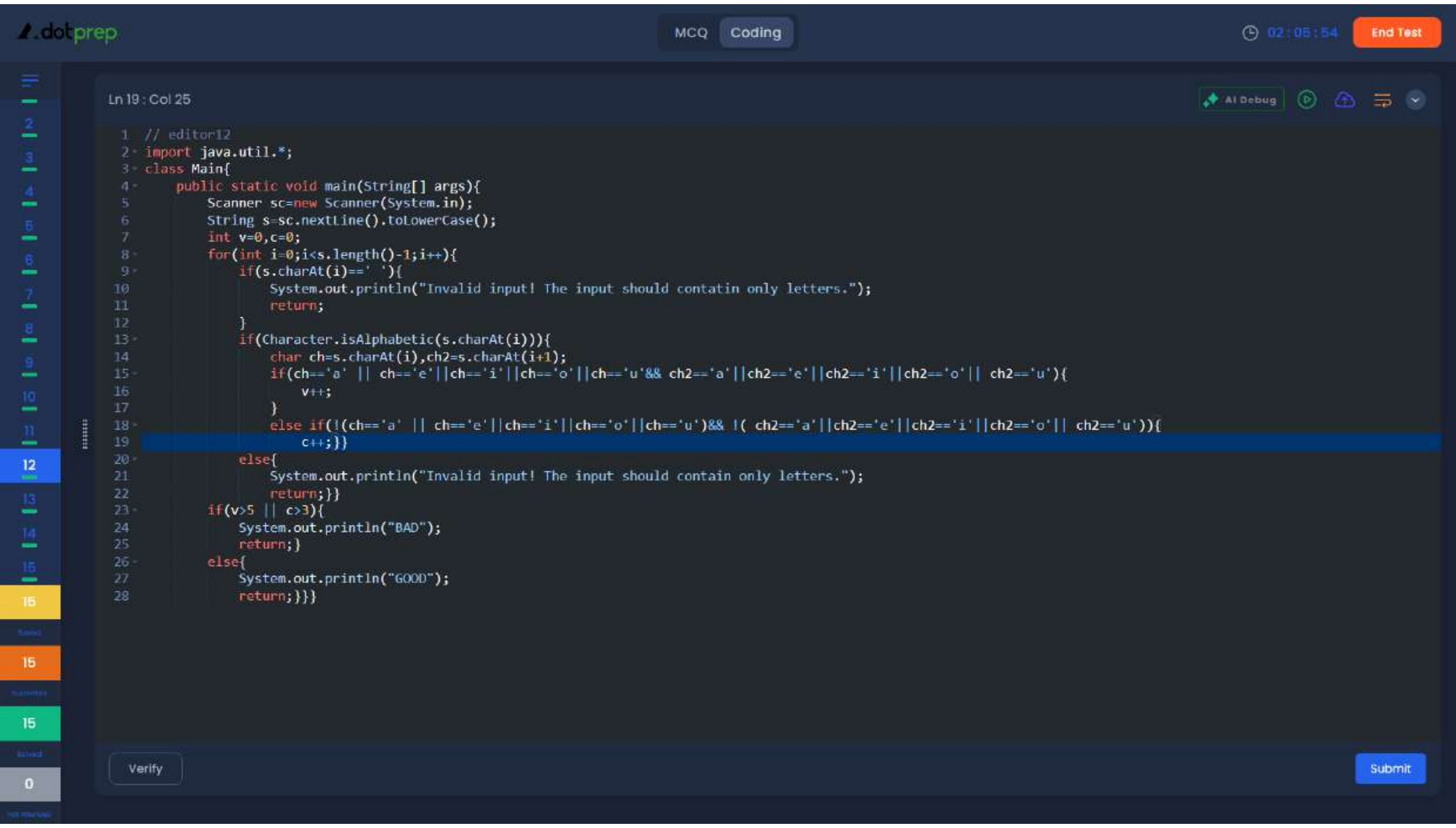
Sample Output 2 :

Tab Switches: N/A

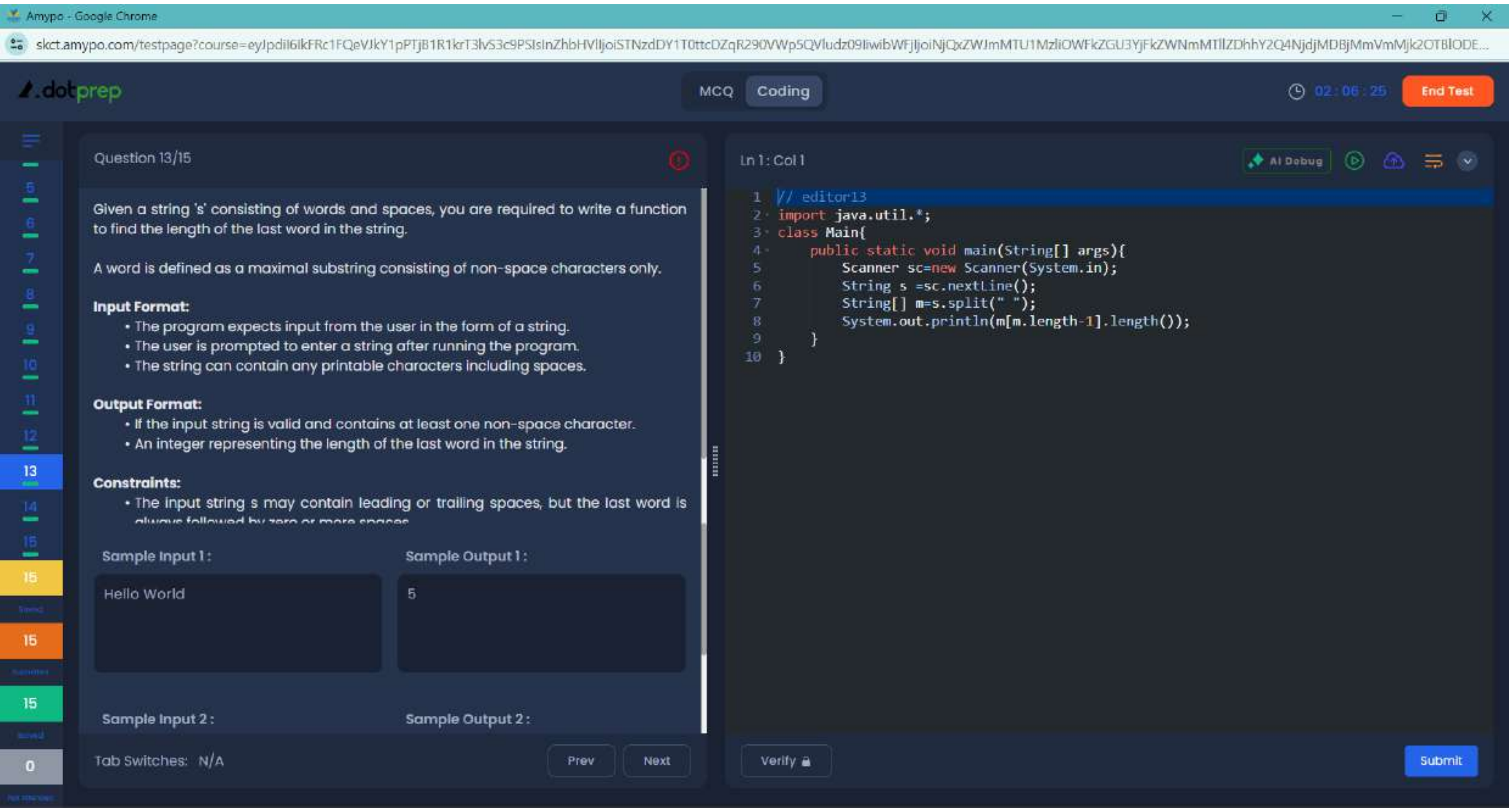
```java
// editor10
import java.util.*;
import java.time.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String a=sc.nextLine();
        String[] b=a.split("-");
        int[] arr=new int[b.length];
        for(int i=0;i<b.length;i++){
            arr[i]=Integer.parseInt(b[i]);
        }
        LocalDate dt=LocalDate.of(arr[0],arr[1],arr[2]);
        dt=dt.plusDays(5);
        System.out.print("The project is due on: "+dt);
    }
}
```



```java
import java.util.*;
class Main{
    public static void zigzag(String str,int n){
        if(n==1){
            System.out.print(str);
            return;
        }
        char[] str1=str.toCharArray();
        int len= str.length();
        String[] arr=new String[n];
        Arrays.fill(arr,"");
        int row=0;
        boolean down=true;
        for(int i=0;i<len;i++){
            arr[row]+=(str1[i]);
            if(row==n-1){
                down=false;
            }
            else if(row==0){
                down=true;
            }
            if(down){
                row++;
            }
            else{
                row--;}}
        for(int i=0;i<n;i++){
            System.out.print(arr[i]);}}
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String inp=sc.nextLine();
        if(!inp.matches("[a-zA-Z]+")){
            System.out.println("Invalid input! The input should contain only letters.");
            return;}
        int n=sc.nextInt();
        zigzag(inp,n);}}
```



```java
// editor12
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine().toLowerCase();
        int v=0,c=0;
        for(int i=0;i<s.length()-1;i++){
            if(s.charAt(i)==' '){
                System.out.println("Invalid input! The input should contatin only letters.");
                return;
            }
            if(Character.isAlphabetic(s.charAt(i))){
                char ch=s.charAt(i),ch2=s.charAt(i+1);
                if(ch=='a' || ch=='e'||ch=='i'||ch=='o'||ch=='u'&& ch2=='a'||ch2=='e'||ch2=='i'||ch2=='o'|| ch2=='u'){
                    v++;
                }
                else if(!(ch=='a' || ch=='e'||ch=='i'||ch=='o'||ch=='u')&& !( ch2=='a'||ch2=='e'||ch2=='i'||ch2=='o'|| ch2=='u')){
                    c++;}}
            else{
                System.out.println("Invalid input! The input should contain only letters.");
                return;}}
        if(v>5 || c>3){
            System.out.println("BAD");
            return;}
        else{
            System.out.println("GOOD");
            return;}}}
```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AI Debug

Question 13/15

Given a string 's' consisting of words and spaces, you are required to write a function to find the length of the last word in the string.

A word is defined as a maximal substring consisting of non-space characters only.

Input Format:

- The program expects input from the user in the form of a string.
- The user is prompted to enter a string after running the program.
- The string can contain any printable characters including spaces.

Output Format:

- If the input string is valid and contains at least one non-space character.
- An integer representing the length of the last word in the string.

Constraints:

- The input string s may contain leading or trailing spaces, but the last word is always followed by zero or more spaces

Sample Input 1 :

```
Hello World
```

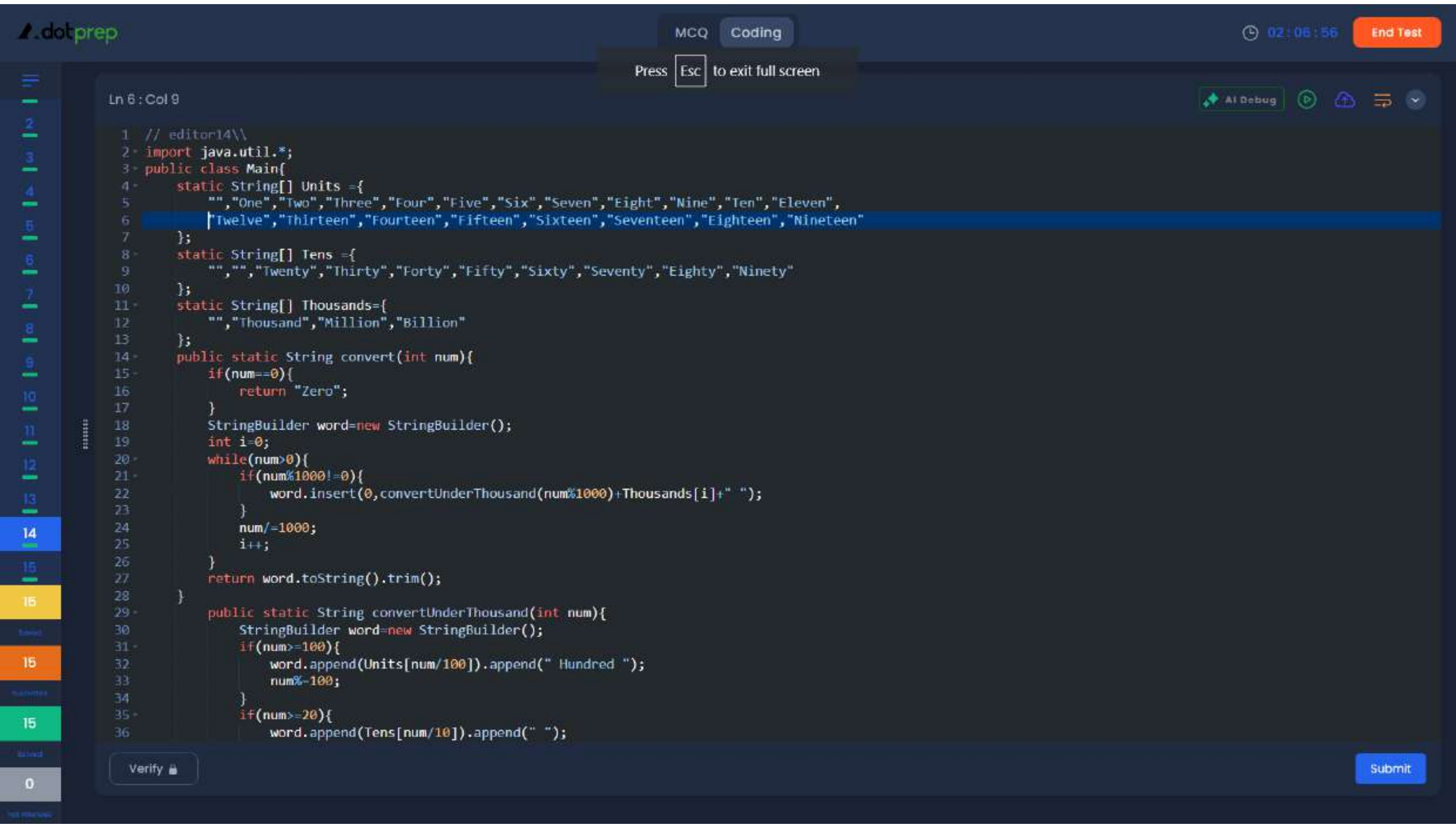
Sample Output 1 :

```
5
```

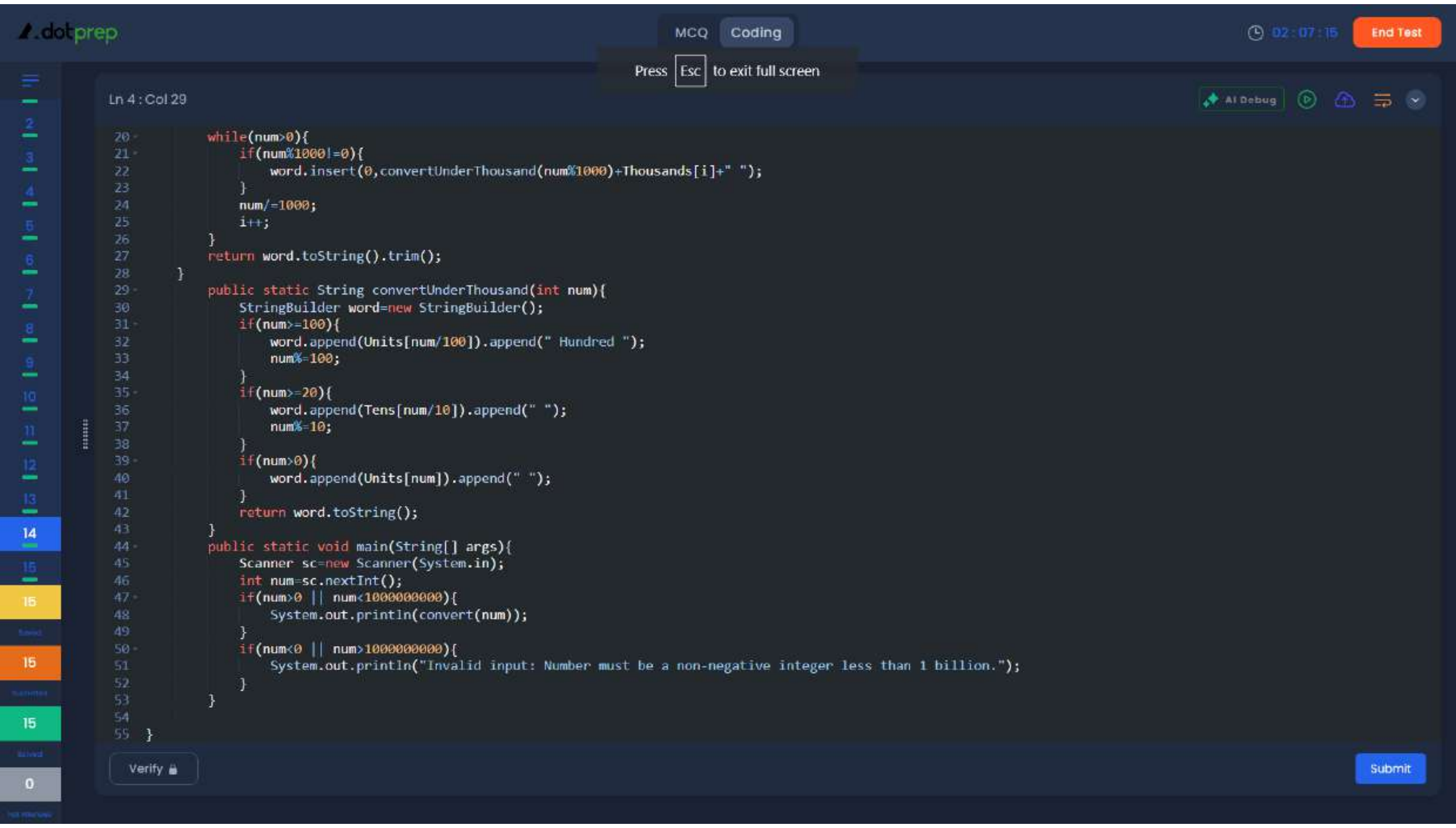
Sample Input 2 :

Sample Output 2 :

```
// editor13
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s =sc.nextLine();
        String[] m=s.split(" ");
        System.out.println(m[m.length-1].length());
    }
}
```

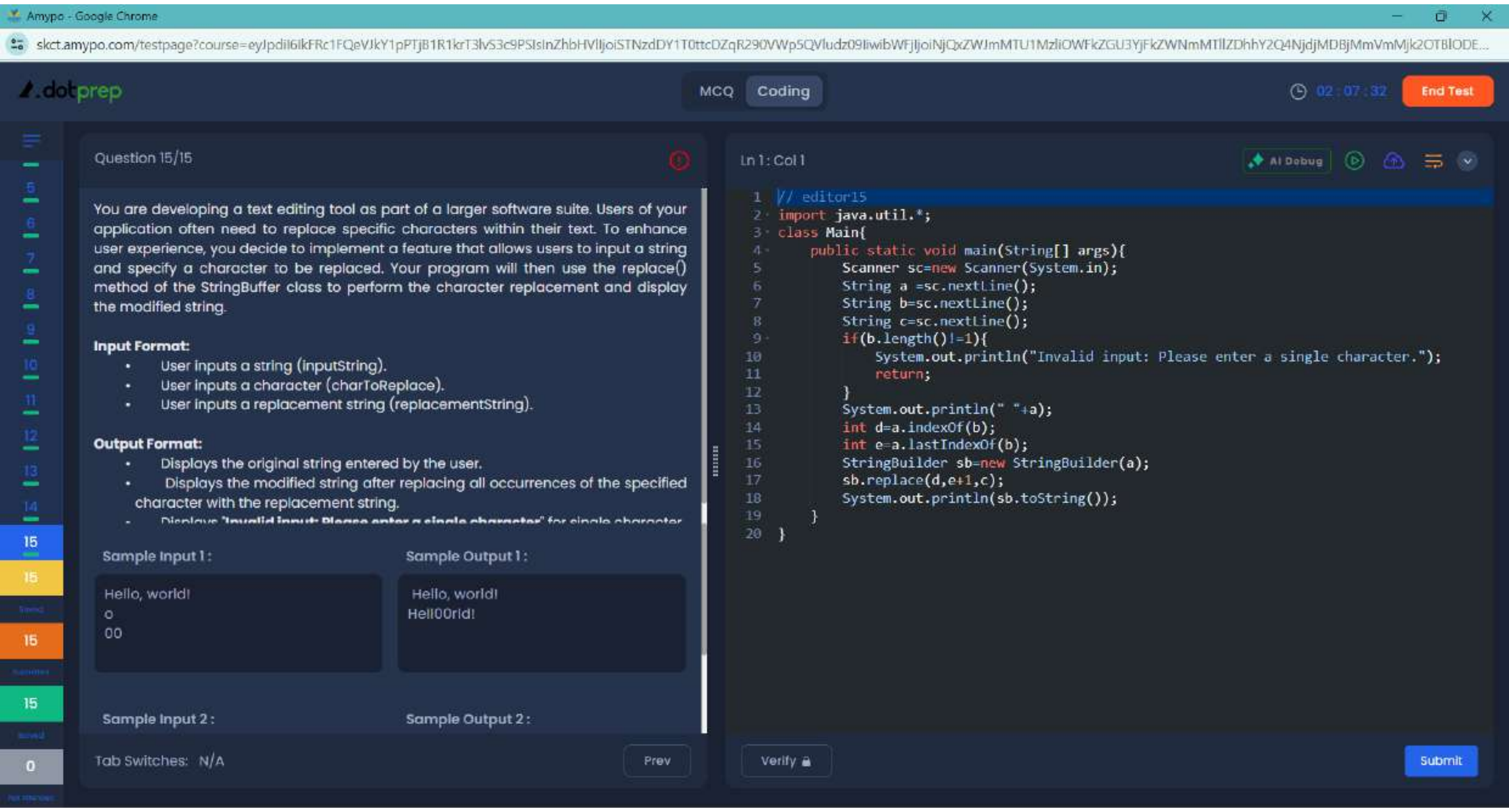


```java
// editor14\\
import java.util.*;
public class Main{
    static String[] Units ={
        "","One","Two","Three","Four","Five","Six","Seven","Eight","Nine","Ten","Eleven",
        "Twelve","Thirteen","Fourteen","Fifteen","Sixteen","Seventeen","Eighteen","Nineteen"
    };
    static String[] Tens ={
        "","","Twenty","Thirty","Forty","Fifty","Sixty","Seventy","Eighty","Ninety"
    };
    static String[] Thousands={
        "","Thousand","Million","Billion"
    };
    public static String convert(int num){
        if(num==0){
            return "Zero";
        }
        StringBuilder word=new StringBuilder();
        int i=0;
        while(num>0){
            if(num%1000!=0){
                word.insert(0,convertUnderThousand(num%1000)+Thousands[i]+" ");
            }
            num/=1000;
            i++;
        }
        return word.toString().trim();
    }
        public static String convertUnderThousand(int num){
            StringBuilder word=new StringBuilder();
            if(num>=100){
                word.append(Units[num/100]).append(" Hundred ");
                num%=100;
            }
            if(num>=20){
                word.append(Tens[num/10]).append(" ");
```



```
        while(num>0){
            if(num%1000!=0){
                word.insert(0,convertUnderThousand(num%1000)+Thousands[i]+" ");
            }
            num/=1000;
            i++;
        }
        return word.toString().trim();
    }
        public static String convertUnderThousand(int num){
            StringBuilder word=new StringBuilder();
            if(num>=100){
                word.append(Units[num/100]).append(" Hundred ");
                num%=100;
            }
            if(num>=20){
                word.append(Tens[num/10]).append(" ");
                num%=10;
            }
            if(num>0){
                word.append(Units[num]).append(" ");
            }
            return word.toString();
        }
        public static void main(String[] args){
            Scanner sc=new Scanner(System.in);
            int num=sc.nextInt();
            if(num>0 || num<1000000000){
                System.out.println(convert(num));
            }
            if(num<0 || num>1000000000){
                System.out.println("Invalid input: Number must be a non-negative integer less than 1 billion.");
            }
        }

}
```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skct.amypo.com/testpage?course=eyJpdiI6IkFRc1FQeVJkY1pPTjB1R1krT3lvS3c9PSIsInZhbHVlIjoiSTNzdDY1T0ttcDZqR290VWp5QVludz09IiwibWFjIjoiNjQxZWJmMTU1MzliOWFkZGU3YjFkZWNmMTllZDhhY2Q4NjdjMDBjMmVmMjk2OTBlODE...
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Ln 1 : Col 1
AI Debug
Tab Switches: N/A
Prev
Verify
Submit

Question 15/15

You are developing a text editing tool as part of a larger software suite. Users of your application often need to replace specific characters within their text. To enhance user experience, you decide to implement a feature that allows users to input a string and specify a character to be replaced. Your program will then use the replace() method of the StringBuffer class to perform the character replacement and display the modified string.

Input Format:

- User inputs a string (inputString).
- User inputs a character (charToReplace).
- User inputs a replacement string (replacementString).

Output Format:

- Displays the original string entered by the user.
- Displays the modified string after replacing all occurrences of the specified character with the replacement string.
- Displays **"Invalid input: Please enter a single character"** for single character

Sample Input 1 :

```
Hello, world!
o
00
```

Sample Output 1 :

```
Hello, world!
Hell00rld!
```

Sample Input 2 :

Sample Output 2 :

```java
// editor15
import java.util.*;
class Main{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String a =sc.nextLine();
        String b=sc.nextLine();
        String c=sc.nextLine();
        if(b.length()!=1){
            System.out.println("Invalid input: Please enter a single character.");
            return;
        }
        System.out.println(" "+a);
        int d=a.indexOf(b);
        int e=a.lastIndexOf(b);
        StringBuilder sb=new StringBuilder(a);
        sb.replace(d,e+1,c);
        System.out.println(sb.toString());
    }
}
```