DEV SANSKRITI
VISHWAVIDYALAYA

Practical File

Year - 2018-2021

C#.NET

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INDEX

S. No.	Task	Page No
1	Write a program for Armstrong Numbers	1
2	Write a program to print factorial of a number	3
3	Write a program to find the GCD of two numbers	4
4	Write a program to check if a number is prime number	5
5	Write a program to print the fibonacci series	7
6	Write a program to print the half pyramid pattern	8
7	Write a program to print the half pyramid pattern with numbers	10
8	Write a program to print the half pyramid inverse pattern	12
9	Write a program to print the pyramid pattern	14
10	Write a program to print the inverse pyramid pattern	15
11	Write a program to print the diamond pattern	16
12	Write a program to print the Pascal’s triangle	18
13	Write a program to compare two string without using string library functions	20
14	Write a program to count a total number of alphabets, digits and special characters in a string	22
15	Write a program to copy one string to another string	24
16	Write a program to find maximum occurring character in a string	25
17	Write a program to check whether a given substring is present in the given string	26
18	Write a program for Encapsulation	28
19	Write a program for Abstraction	30

20	Write a program for single Inheritence	32
21	Write a program for Multilevel Inheritence	33
22	Write a program for multiple Inheritence	34
23	Write a program for method overloading	35
24	Write a program for method overriding	36
25	Write a program for Interface	37
26	Write a program for Namespace	38
27	Write a program for exception handling through try and catch	39
28	Write a program for constructor	40
29	Write a program for Properties	42
30	Write a program for Threading	43
31	Write a program for Indexer	44
32	Write a program to access data from database using ADO.NET	45

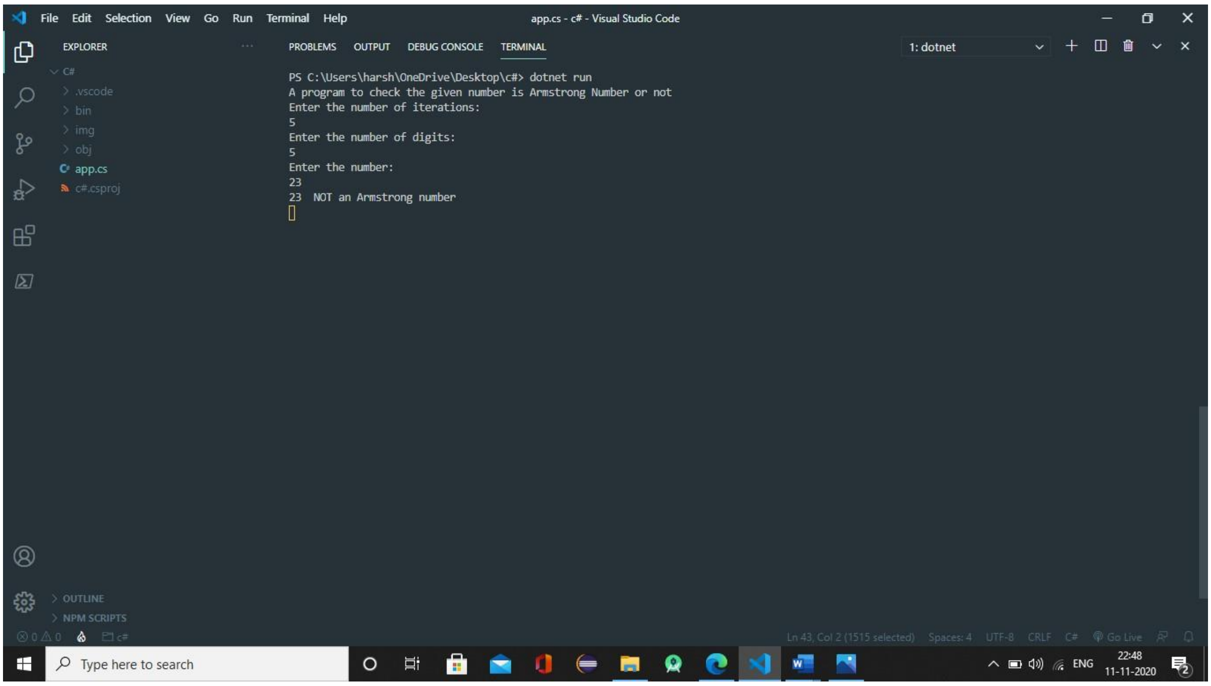
……………………

Signature

1. Write a program for Armstrong Numbers

```
using System;
 namespace TestConsoleApp{
public class Armstrong
    {          public static void
Main(string[] args)
        {
            Console.WriteLine("A program to check the given number is
Armstron g Number or not");              int n, m, num, d;
            double result = 0, number;

            Console.WriteLine("Enter the number of iterations:
");             n = int.Parse(Console.ReadLine());
for (m = 0; m < n; m++)
            {
                Console.WriteLine("Enter the number of digits:
");                 d = int.Parse(Console.ReadLine());
Console.WriteLine("Enter the number: ");                 num =
int.Parse(Console.ReadLine());                 number = num;
for (int i = 0; i < d; i++)
                {                      int rem = num % 10;  //split
last digit from number                      double power =
Math.Pow(rem, d);                    //Console.WriteLine(power);
result = result + power;                     num = num / 10;
                }                 if
(number == result)
                {
                    Console.WriteLine(number + "  Armstrong number.");
result = 0;
                }
else
                {
                    Console.WriteLine(number + "  NOT an Armstrong number");
result = 0;
                    Console.ReadLine();
                }
            }
        }
    }
}
```



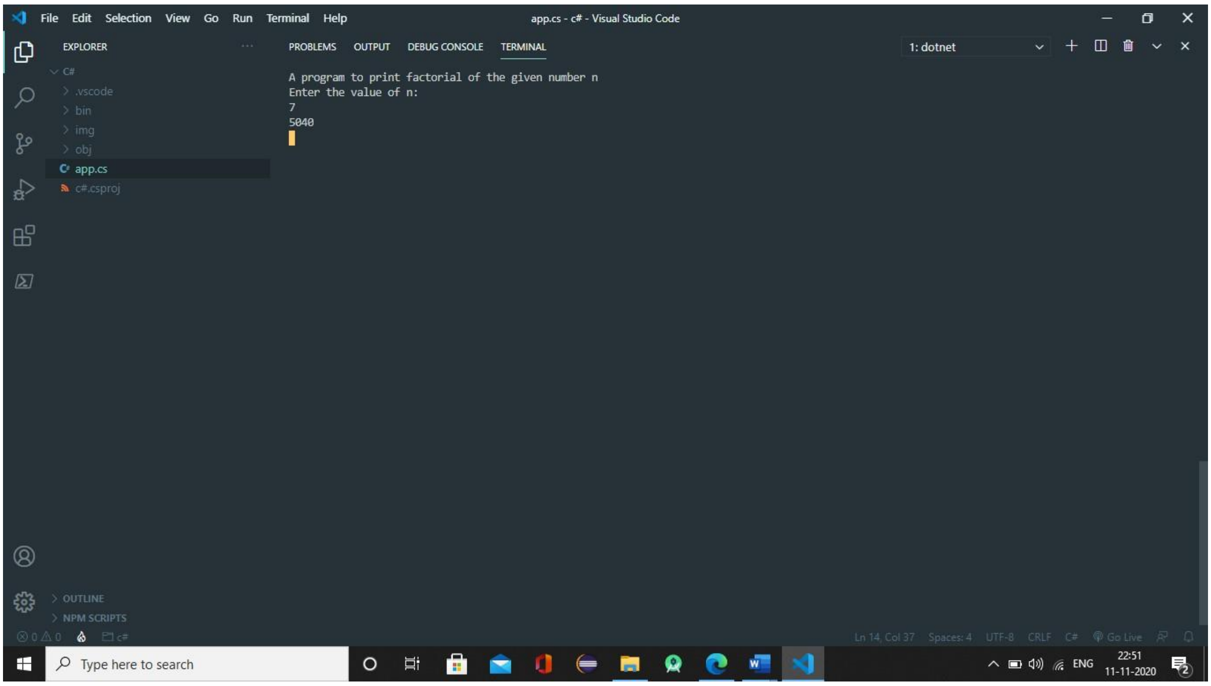
```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to check the given number is Armstrong Number or not
Enter the number of iterations:
5
Enter the number of digits:
5
Enter the number:
23
23  NOT an Armstrong number
```

2. Write a program to print factorial of a number

```
using System;
 namespace
TestConsoleApp{
         public class
Factorial
    {         public static void
Main(string[] args)
        {
            Console.WriteLine("A program to print factorial of the given numbe
r n");              int m, n, fact = 1;

            Console.WriteLine("Enter the value of n:
");             n = int.Parse(Console.ReadLine());
for (m = 1; m <= n; m++)
            {
fact = fact * m;
            }
            Console.WriteLine(fact);
            Console.ReadLine();
        }
    }

}
```



```
A program to print factorial of the given number n
Enter the value of n:
7
5040
```

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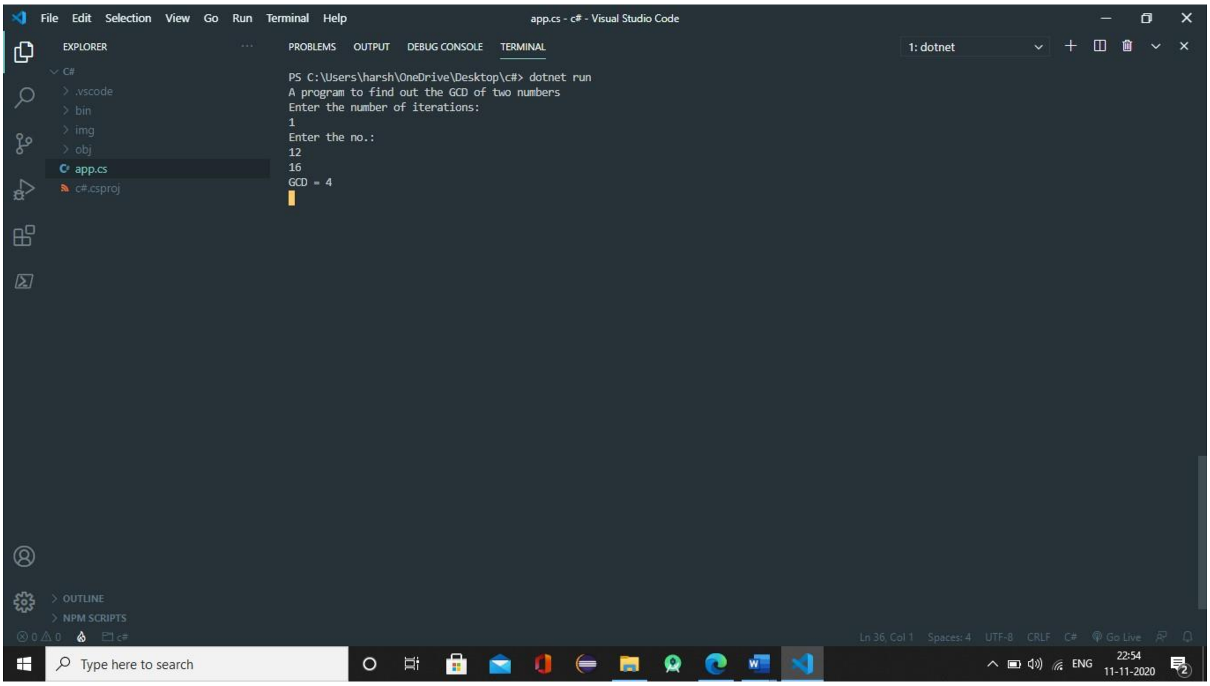
app.cs - c# - Visual Studio Code
EXPLORER
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
C#
.vscode
bin
img
obj
app.cs
c#.csproj
OUTLINE
NPM SCRIPTS
Ln 14, Col 37 Spaces: 4 UTF-8 CRLF C# Go Live
Type here to search
ENG
22:51
11-11-2020

3. Write a program to find the GCD of two numbers

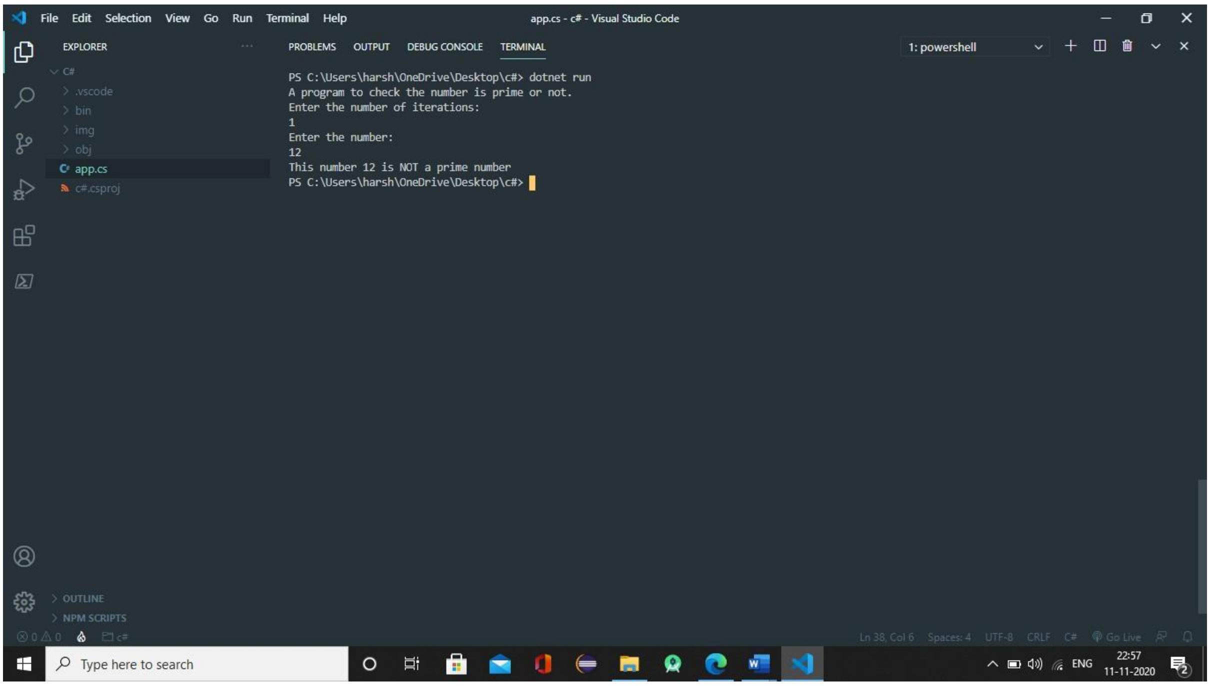
```
using System;
 namespace
TestConsoleApp{
         public
class GCD
    {          public static void
Main(string[] args)
        {
            int n, a, b, gcd = 1, temp;
            Console.WriteLine("A program to find out the GCD of two
numbers");             Console.WriteLine("Enter the number of iterations: ");
n = int.Parse(Console.ReadLine());             for (int i = 0; i < n; i++)
            {
                Console.WriteLine("Enter the no.:");
a = int.Parse(Console.ReadLine());                 b
= int.Parse(Console.ReadLine());
                      for(int z = 1; z<=a && z <= b;
z++)                        {
if (a%z==0 && b%z==0)
gcd = z;
                       }
while (b != 0)
                {
temp = b;
b = a % b;
a = temp;
                }
gcd = a;
                Console.WriteLine("GCD = " + gcd);
                Console.ReadLine();
            }
        }
    }


}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to find out the GCD of two numbers
Enter the number of iterations:
1
Enter the no.:
12
16
GCD = 4
```

4. Write a program to check if a number is prime number

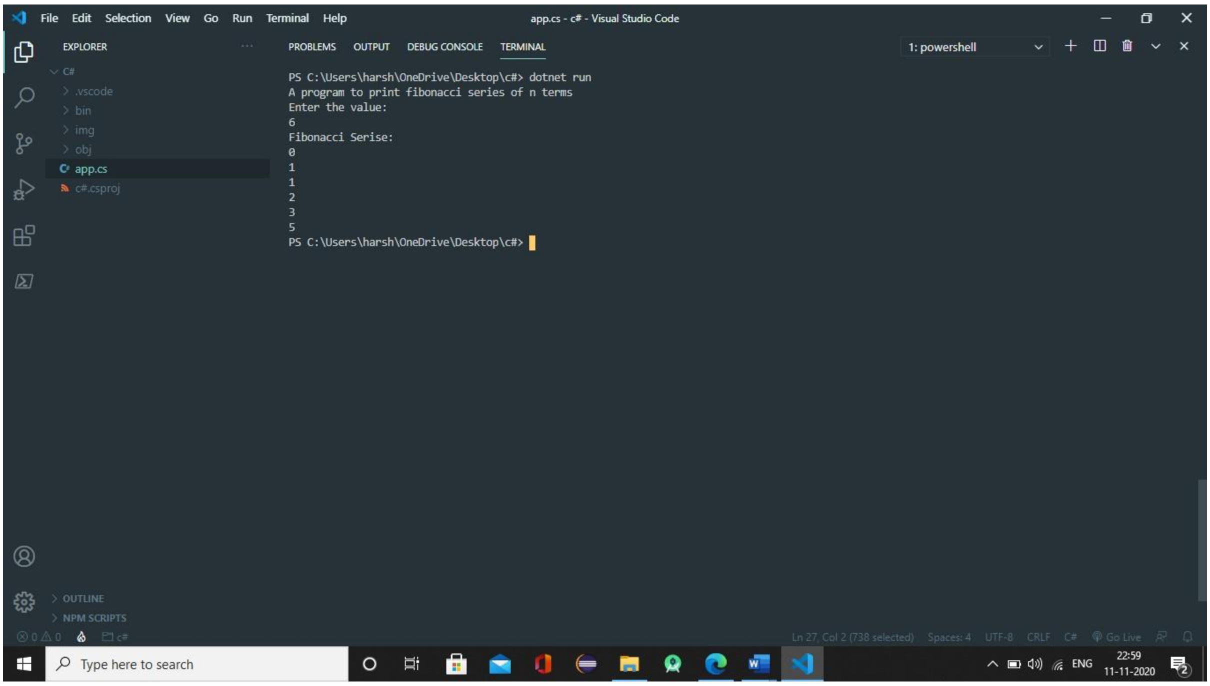
```
using System;
 namespace
TestConsoleApp{
public class Prime
    {          public static void
Main(string[] args)
        {
            Console.WriteLine("A program to check the number is prime or not."
);             int m, n, count = 0,
i, j;

            Console.WriteLine("Enter the number of iterations: ");
j = int.Parse(Console.ReadLine());
             for (i = 0; i < j;
i++)
            {
                Console.WriteLine("Enter the number: ");
n = int.Parse(Console.ReadLine());
                 for (m = 2; m <= n / 2;
m++)
                {
if (n % m == 0)
                    {
count = count + 1;
                    }

                }
if (count == 0)
                {
                    Console.WriteLine("This number " + n + " is a prime number
");
                }
else
                {
                    Console.WriteLine("This number " + n + " is NOT a prime nu
mber");                     count = 0;
                }
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to check the number is prime or not.
Enter the number of iterations:
1
Enter the number:
12
This number 12 is NOT a prime number
PS C:\Users\harsh\OneDrive\Desktop\c#>
```

5. Write a program to print the fibonacci series

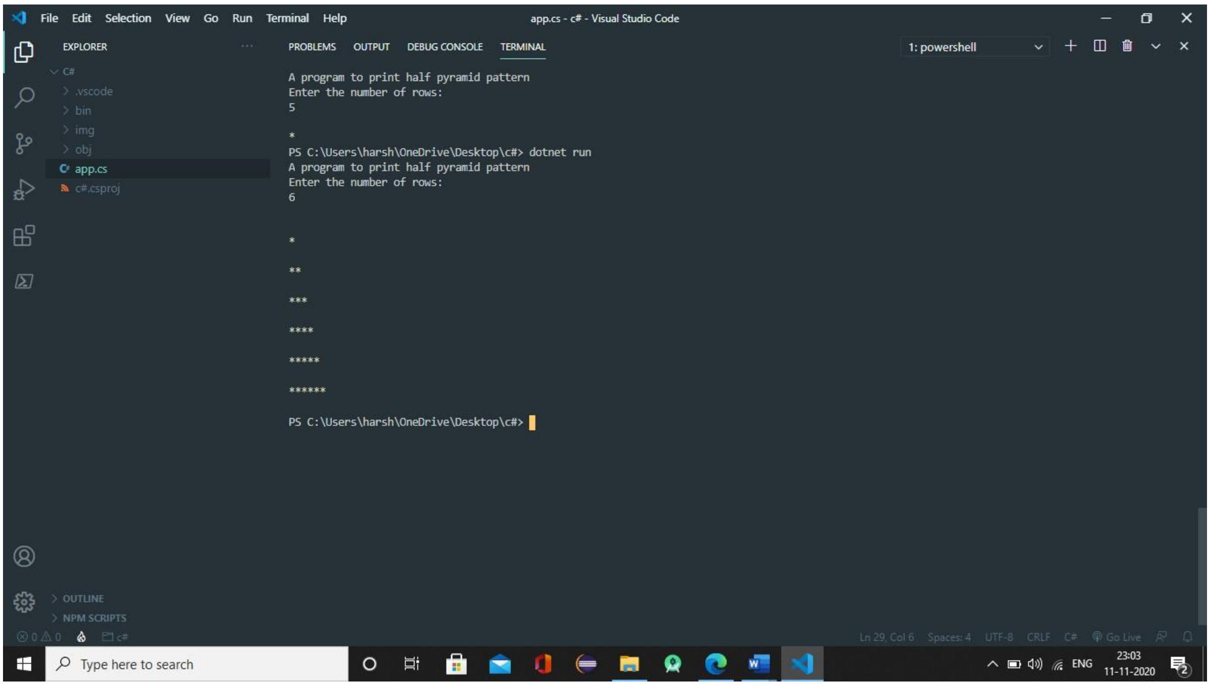
```
using System;
 namespace
TestConsoleApp{
public class Prime
    {          public class
Fibonacci
        {              public static void
Main(string[] args)
            {
                Console.WriteLine("A program to print fibonacci series of n te
rms");                 int m, n, a = 0, b = 1;

                Console.WriteLine("Enter the value: ");
n = int.Parse(Console.ReadLine());
Console.WriteLine("Fibonacci Serise: ");
for (m = 1; m <= n; m++)
                {

Console.WriteLine(a);
int next = a + b;                     a
= b;                    b = next;


                }
            }
        }
    }


}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print fibonacci series of n terms
Enter the value:
6
Fibonacci Serise:
0
1
1
2
3
5
PS C:\Users\harsh\OneDrive\Desktop\c#>
```

6. Write a program to print the half pyramid pattern

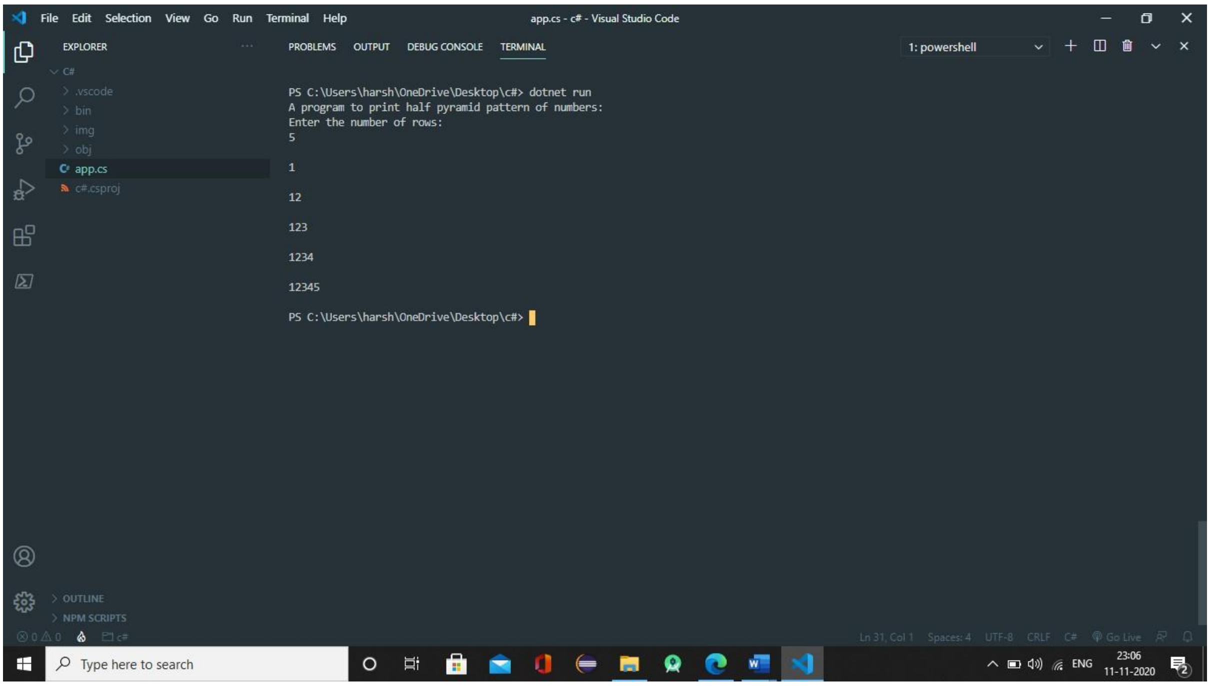
```
using System;
 namespace TestConsoleApp{
public class Pattern_HalfPyramid
    {         public static void
Main(string[] args)
        {
            int space, rows;
            Console.WriteLine("A program to print half pyramid
pattern");           Console.WriteLine("Enter the number of rows:");
rows = int.Parse(Console.ReadLine());
             for (int i = 0; i <= rows;
i++)
            {
                 for (int star = 0; star < i; star++)
                {
                    Console.Write("*");
                }                 for (space = i;
space < rows; space++)
                {
                    Console.Write(" ");
                }
                Console.WriteLine();
                Console.ReadLine();
            }

        }
    }
}
```



```
A program to print half pyramid pattern
Enter the number of rows:
5

*
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print half pyramid pattern
Enter the number of rows:
6


*

**

***

****

*****

******

PS C:\Users\harsh\OneDrive\Desktop\c#>
```

7. Write a program to print the half pyramid pattern with numbers

```
using System;
 namespace TestConsoleApp{     public
class Pattern_HalfPyramidNum
    {         public static void
Main(string[] args)
        {
            int space, rows;
            Console.WriteLine("A program to print half pyramid pattern of
numb ers:");
            Console.WriteLine("Enter the number of rows:");
rows = int.Parse(Console.ReadLine());
            Console.WriteLine();
             for (int i = 1; i <= rows;
i++)
            {
                 for (int num = 1; num <= i;
num++)
                {
                    Console.Write(num);
                }                 for (space = i;
space < rows; space++)
                {
                    Console.Write(" ");
                }
                Console.WriteLine();
                Console.ReadLine();
            }

        }
    }

}
```



File Edit Selection View Go Run Terminal Help
app.cs - c# - Visual Studio Code
EXPLORER
C#
.vscode
bin
img
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c#.csproj
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
OUTLINE
NPM SCRIPTS
Ln 31, Col 1 Spaces: 4 UTF-8 CRLF C# Go Live
Type here to search
ENG
23:06
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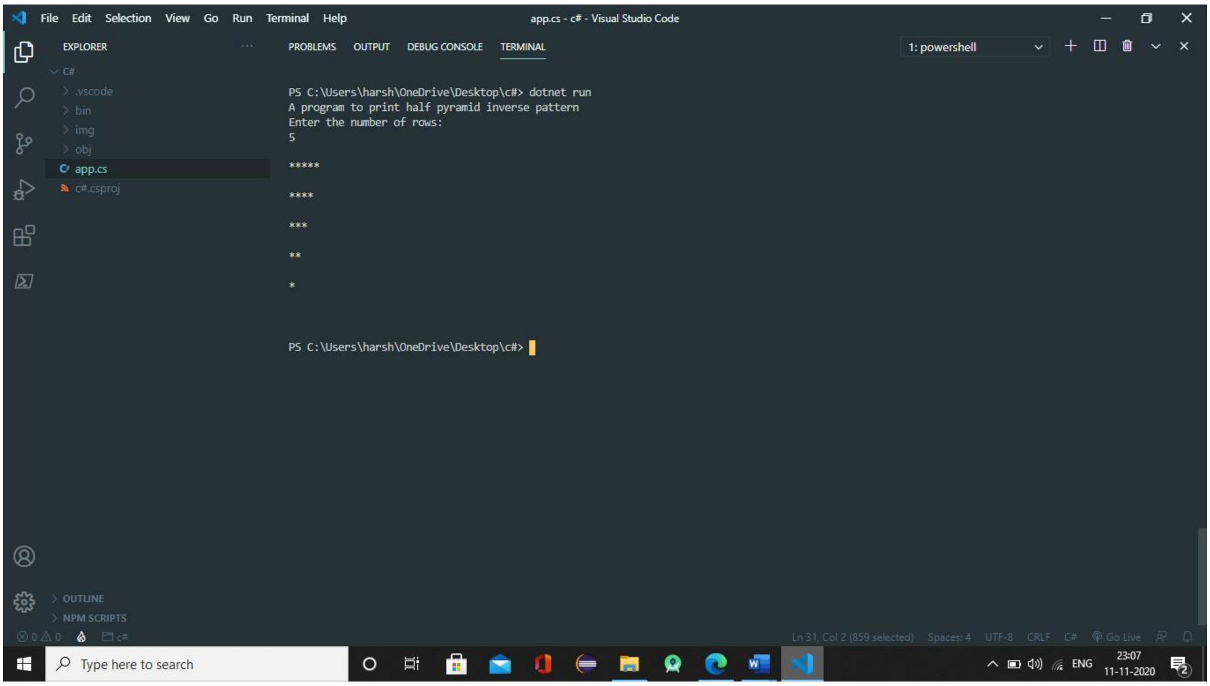
```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print half pyramid pattern of numbers:
Enter the number of rows:
5

1

12

123

1234

12345

PS C:\Users\harsh\OneDrive\Desktop\c#>
```

8. Write a program to print the half pyramid inverse pattern

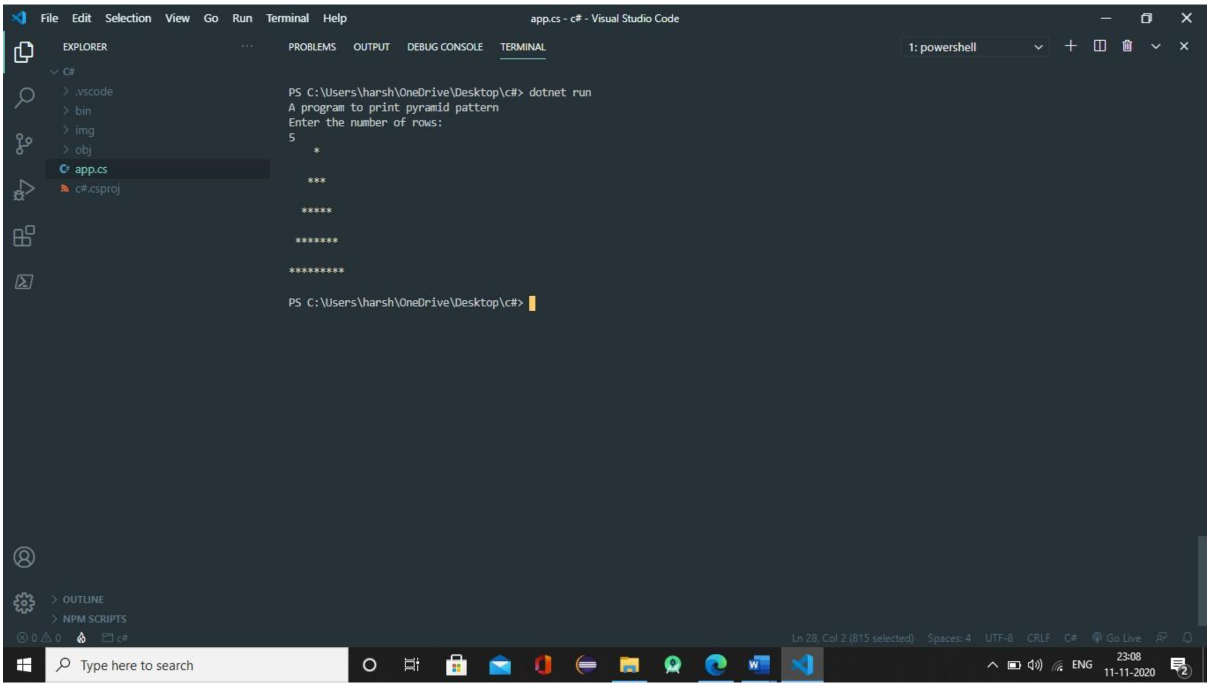
```
using System;
 namespace TestConsoleApp{    public
class Pattern_HalfInversePyramid
    {         public static void
Main(string[] args)
        {
            int space, rows;
            Console.WriteLine("A program to print half pyramid inverse
pattern ");
            Console.WriteLine("Enter the number of rows:");
rows = int.Parse(Console.ReadLine());
            Console.WriteLine();
             for (int i = 0; i <= rows;
i++)
            {
                for (int star = rows; star > i; star--
)
                {
                    Console.Write("*");
                }                   for (space = i;
space < rows; space++)
                {
                    Console.Write(" ");
                }
                Console.WriteLine();
                Console.ReadLine();
            }

        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print half pyramid inverse pattern
Enter the number of rows:
5

*****

****

***

**

*


PS C:\Users\harsh\OneDrive\Desktop\c#>
```

9. Write a program to print the pyramid pattern

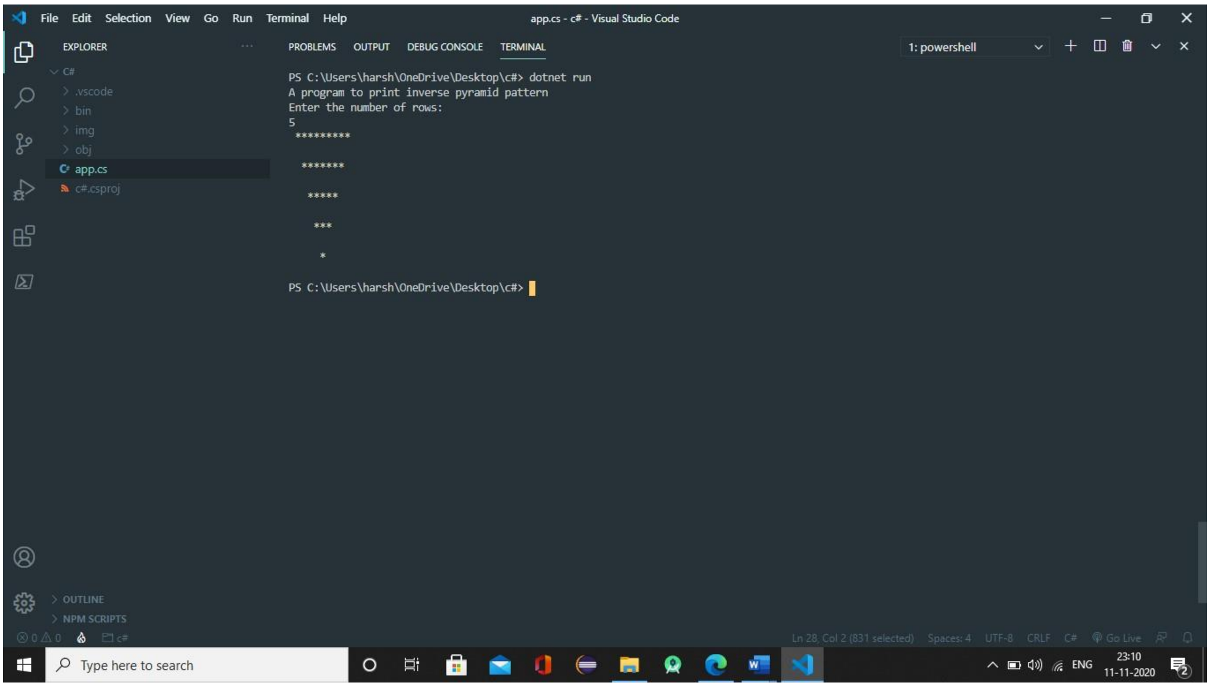
```
using System;
 namespace
TestConsoleApp{
       public class Pattern_pyramid
    {         public static void
Main(string[] args)
        {
            int space, rows;
            Console.WriteLine("A program to print pyramid pattern");
            Console.WriteLine("Enter the number of
rows:");             rows = int.Parse(Console.ReadLine());
for (int i = 1; i <= rows; i++)
            {                 for (space = i; space <
rows; space++)                {
                    Console.Write(" ");
                }                 for (int star = 1; star
< (i * 2); star++)                {
                    Console.Write("*");
                }
                Console.WriteLine();
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print pyramid pattern
Enter the number of rows:
5
    *

   ***

  *****

 *******

*********

PS C:\Users\harsh\OneDrive\Desktop\c#> 
```

10. Write a program to print the inverse pyramid pattern

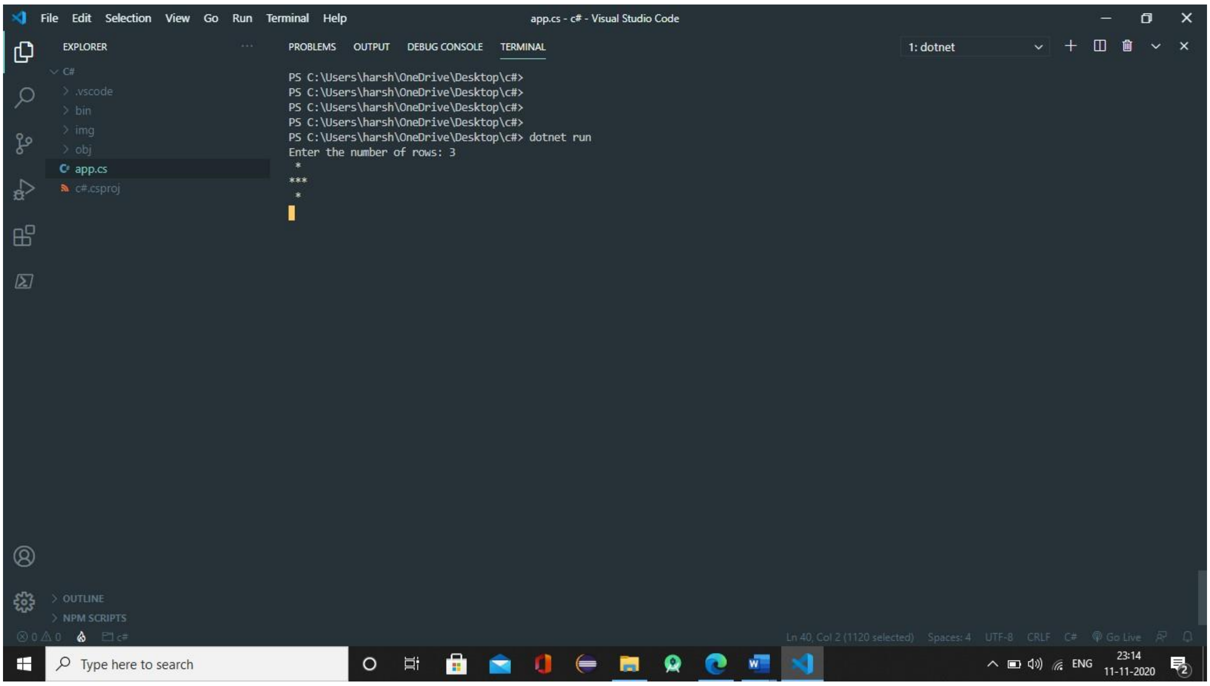
```
using System;
 namespace TestConsoleApp{        public
class Pattern_PyramidInverse
    {         public static void
Main(string[] args)
        {
            int space, rows;
            Console.WriteLine("A program to print inverse pyramid pattern");
            Console.WriteLine("Enter the number of
rows:");            rows = int.Parse(Console.ReadLine());
for (int i = rows; i >= 1; i--)
            {                 for (space = i; space <=
rows; space++)                 {
                    Console.Write(" ");
                }                 for (int star = (i *
2); star > 1; star--)                {
                    Console.Write("*");
                }
                Console.WriteLine();
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print inverse pyramid pattern
Enter the number of rows:
5
 *********

  *******

   *****

    ***

     *

PS C:\Users\harsh\OneDrive\Desktop\c#>
```

11. Write a program to print the diamond pattern

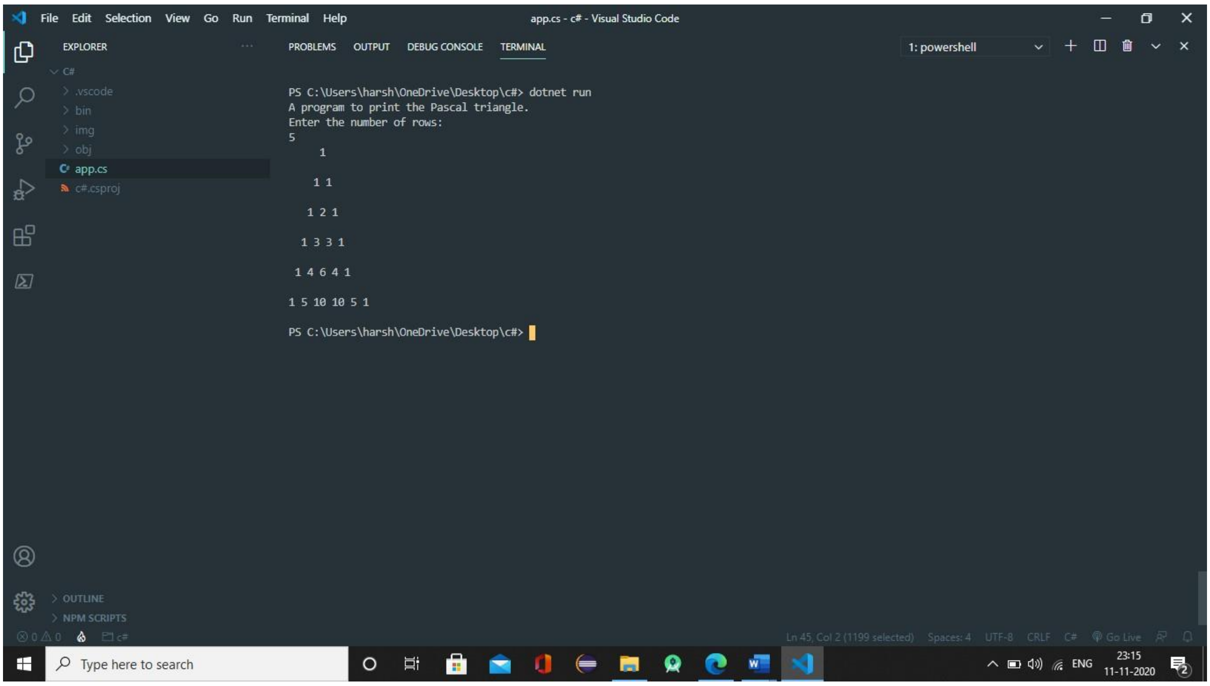
```
using System;
 namespace TestConsoleApp{
public class Pattern_diamond
    {         public static void
Main(string[] args)
        {             int rows,
i, j, space;

            Console.Write("Enter the number of rows: ");
rows = int.Parse(Console.ReadLine());
             for (i = 0; i <= rows / 2;
i++)
            {                 for (space = i; space <
rows / 2; space++)                 {
                    Console.Write(" ");
                }                 for (j =
0; j <= i * 2; j++)
                {
                    Console.Write("*");
                }
                Console.WriteLine();
            }             for (i = rows / 2 +
1; i >= 1; i--)
            {                 for (space = i; space <= rows /
2 + 1; space++)                 {
                    Console.Write(" ");
                }
                for (j = i * 2 - 4; j >= 0; j--)
                {
                    Console.Write("*");
                }
                Console.WriteLine();
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Enter the number of rows: 3
 *
***
 *
```

12. Write a program to print the Pascal’s triangle

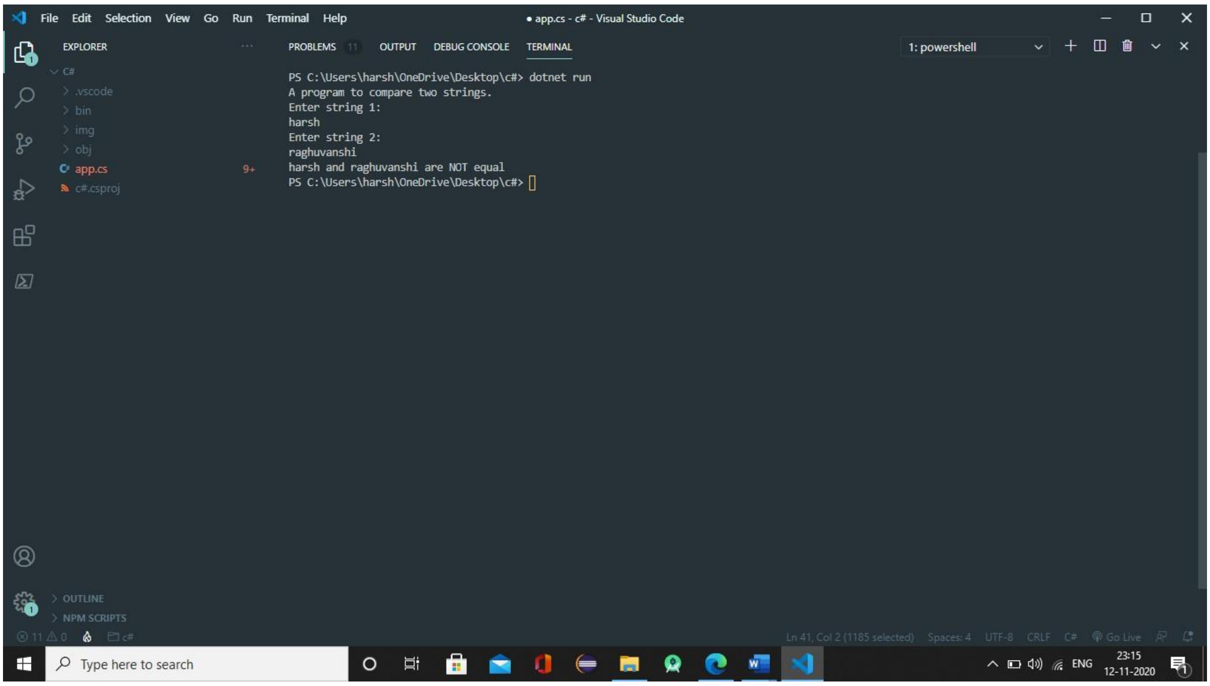
```
using System;
 namespace
TestConsoleApp{
       public class Pascal_Triangle
    {          public static int
Factorial(int fact)
        {              int m, f = 1;
for (m = 1; m <= fact; m++)
            {
f = f * m;
            }
            return f;
        }
         public static int Ncr(int a, int
b)
        {              return Factorial(a) / (Factorial(b) *
Factorial(a - b));          }
         public static void Main(string[]
args)
        {
            int space, rows, c;
            Console.WriteLine("A program to print the Pascal
triangle.");             Console.WriteLine("Enter the number of rows:");
rows = int.Parse(Console.ReadLine());
             for (int i = 0; i <= rows;
i++)
            {                 for (space = i; space <
rows; space++)
                {
                    Console.Write(" ");
                }                for (int
j = 0; j <= i; j++)
                {
                    c = Ncr(i, j);
                    Console.Write(c + " ");
                }
                Console.WriteLine();
                Console.ReadLine();
            }
        }
    }

}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to print the Pascal triangle.
Enter the number of rows:
5
     1

    1 1

   1 2 1

  1 3 3 1

 1 4 6 4 1

1 5 10 10 5 1

PS C:\Users\harsh\OneDrive\Desktop\c#> 
```

13. Write a program to compare two string without using string library functions

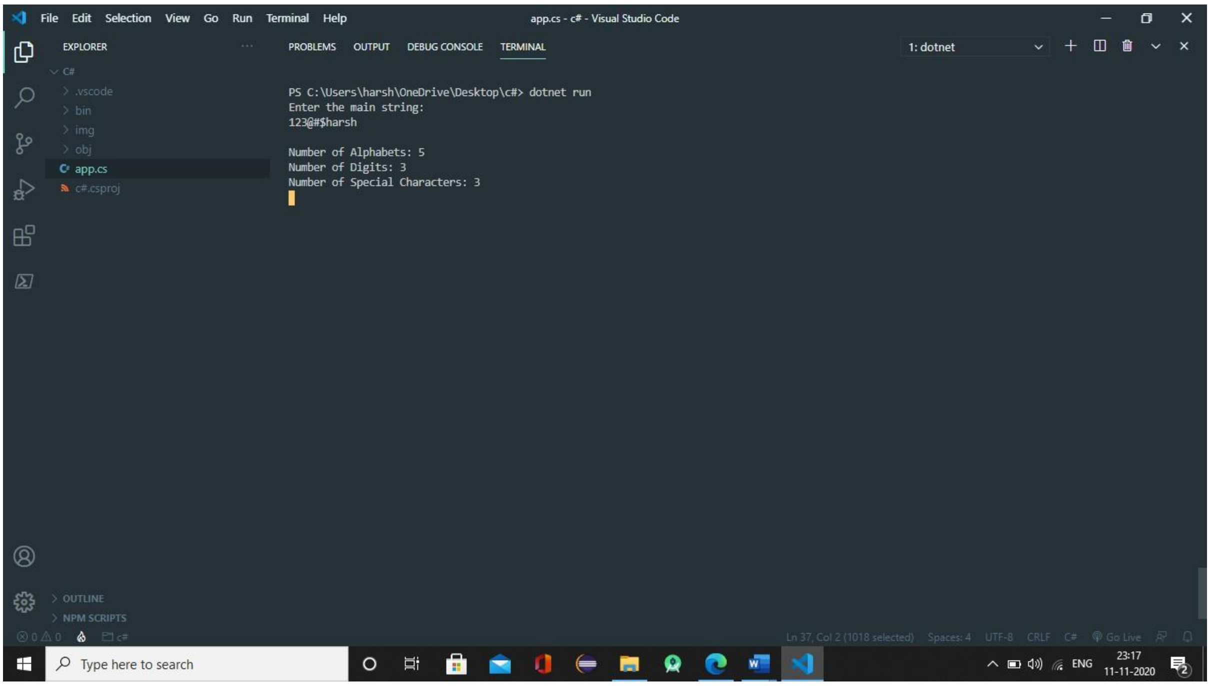
```
using System;
 namespace
TestConsoleApp
{     class
Program
    {          public class
StringCompare
        {              public static void
Main(string[] args)
            {
                string str1, str2; int flag = 0;
                Console.WriteLine("A program to compare two
strings.");                 Console.WriteLine("Enter string 1: ");
str1 = Console.ReadLine();
                Console.WriteLine("Enter   string   2:   ");
str2 = Console.ReadLine();
                 for (int i = 0; i < str1.Length; i++)
                {                      if
(str1[i] != str2[i])
                    {
flag = 0; break;
                    }
else                     {
flag = 1;
                    }
                }

                if (flag == 0)
                {
                    Console.WriteLine(str1 + " and " + str2 + " are NOT equal"
);
                }
else if (flag == 1)
                {
                    Console.WriteLine(str1 + " and " + str2 + " are Equal");
                }
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to compare two strings.
Enter string 1:
harsh
Enter string 2:
raghuvanshi
harsh and raghuvanshi are NOT equal
PS C:\Users\harsh\OneDrive\Desktop\c#> 
```

14. Write a program to count a total number of alphabets, digits and special characters in a string

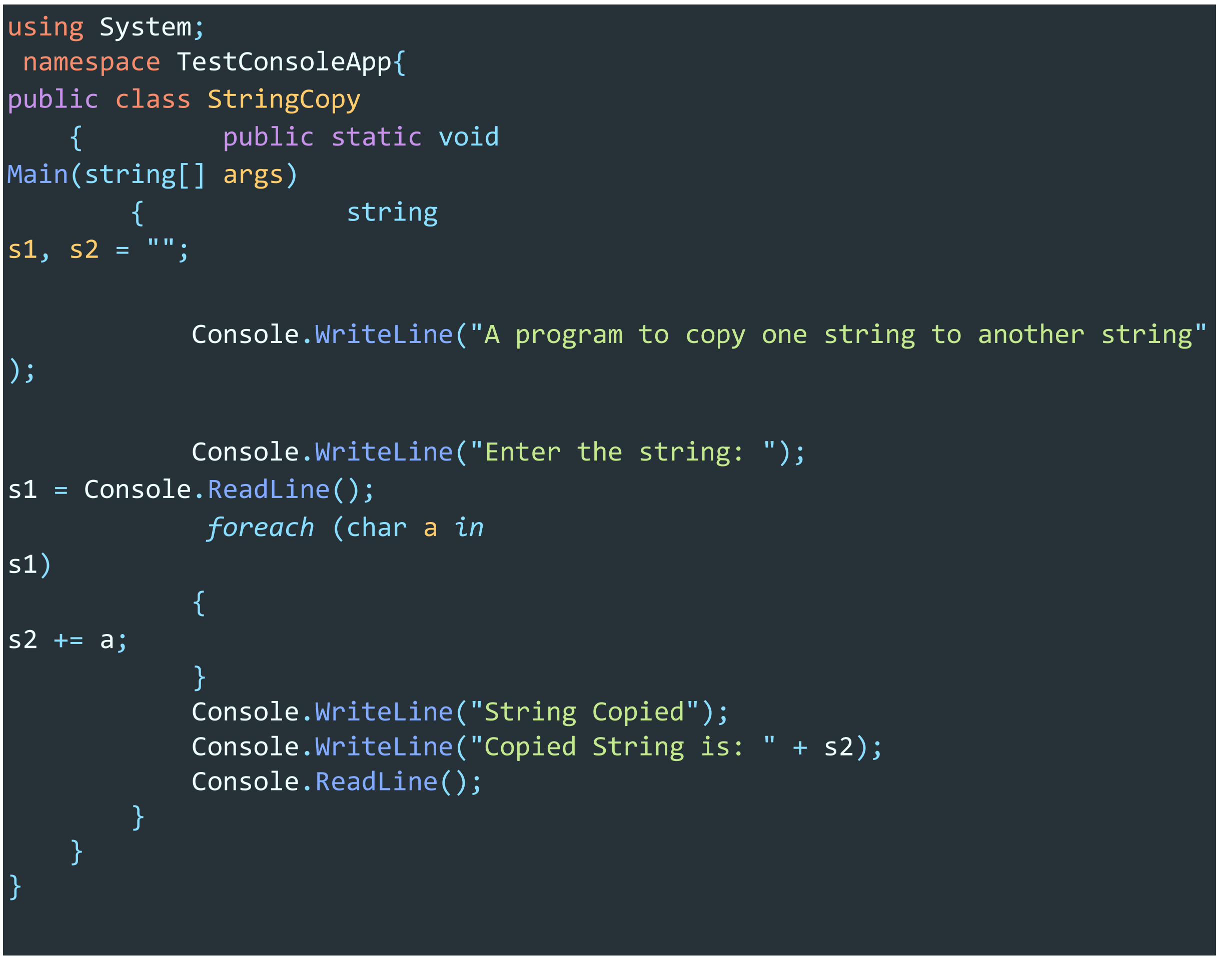
```
using System;
 namespace TestConsoleApp{
public class StringCount
    {          public static void
Main(string[] args)
        {             string str;
int alpha = 0, digit = 0, sym = 0;

            Console.WriteLine("Enter the main string: ");
str = Console.ReadLine();
             foreach (char s in
str)
            {                 if (s >= 65 && s <= 90 || s >=
97 && s <= 122)
                {
alpha += 1;
                }                 else if
(s >= 48 && s <= 57)
                {
digit += 1;
                }
else                 {
sym += 1;
                }
            }
            Console.WriteLine();
            Console.WriteLine("Number of Alphabets: " + alpha);
            Console.WriteLine("Number of Digits: " + digit);
            Console.WriteLine("Number of Special Characters: " + sym);
            Console.ReadLine();
        }
    }

}
```



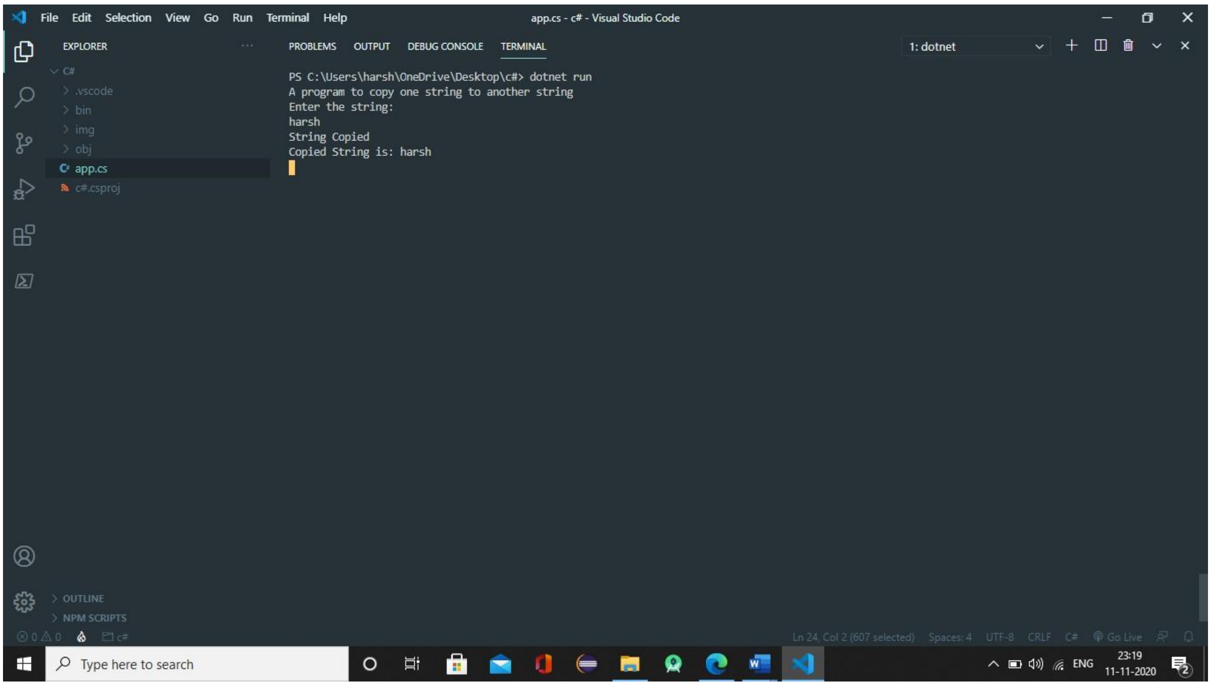
File Edit Selection View Go Run Terminal Help
app.cs - c# - Visual Studio Code
EXPLORER
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
c#
.vscode
bin
img
obj
app.cs
c#.csproj
OUTLINE
NPM SCRIPTS
Ln 37, Col 2 (1018 selected) Spaces: 4 UTF-8 CRLF C# Go Live
Type here to search
ENG
23:17
11-11-2020

```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Enter the main string:
123@#$harsh

Number of Alphabets: 5
Number of Digits: 3
Number of Special Characters: 3
```

15. Write a program to copy one string to another string



```
using System;
 namespace TestConsoleApp{
public class StringCopy
    {          public static void
Main(string[] args)
        {              string
s1, s2 = "";

            Console.WriteLine("A program to copy one string to another string"
);

            Console.WriteLine("Enter the string: ");
s1 = Console.ReadLine();
             foreach (char a in
s1)
            {
s2 += a;
            }
            Console.WriteLine("String Copied");
            Console.WriteLine("Copied String is: " + s2);
            Console.ReadLine();
        }
    }
}
```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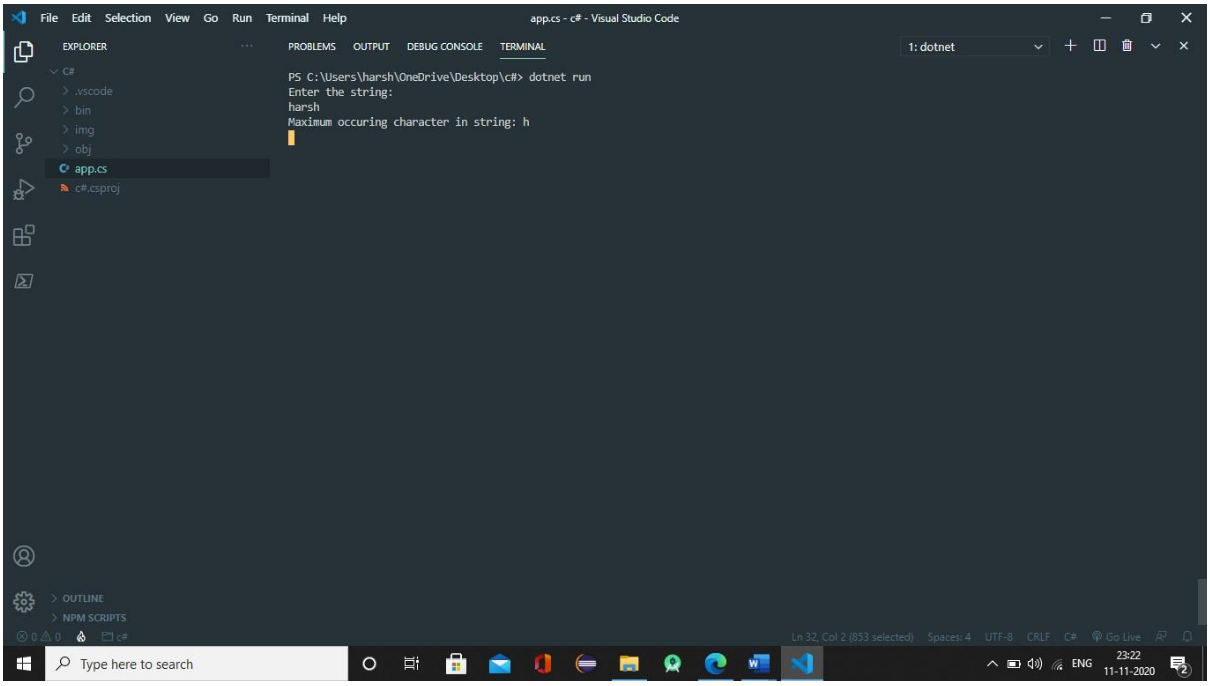
app.cs - c# - Visual Studio Code
EXPLORER
C#
.vscode
bin
img
obj
app.cs
c#.csproj
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
OUTLINE
NPM SCRIPTS
Ln 24, Col 2 (607 selected) Spaces: 4 UTF-8 CRLF C# Go Live
Type here to search
ENG
23:19
11-11-2020

```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to copy one string to another string
Enter the string:
harsh
String Copied
Copied String is: harsh
```

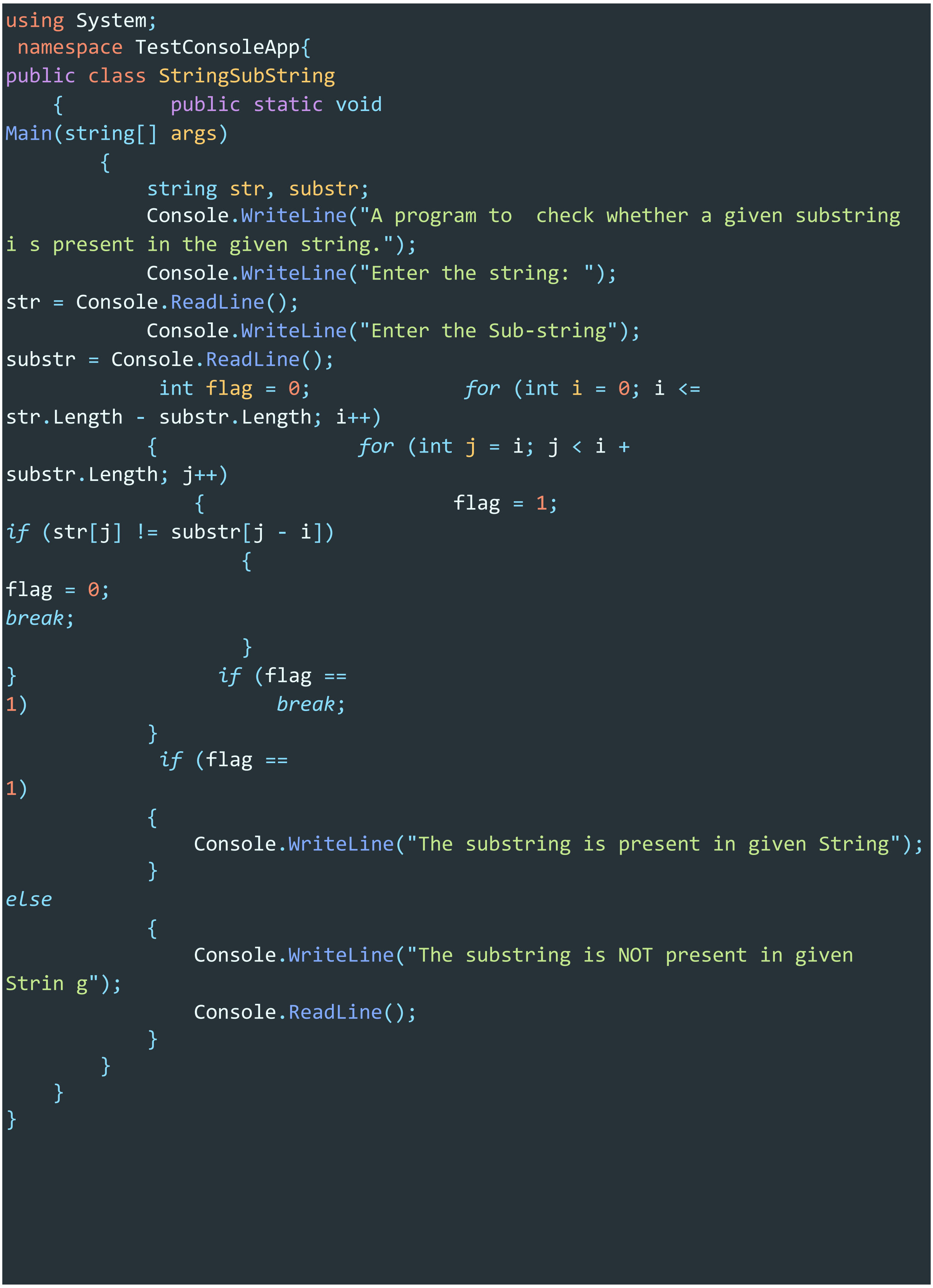
16. Write a program to find maximum occurring character in a string

```
using System;
 namespace TestConsoleApp{
public class StringMax
    {         public static void
Main(string[] args)
        {
string str;
            int[] count = new int[256];
            Console.WriteLine("Enter the string: ");
str = Console.ReadLine();
             for (int i = 0; i < str.Length;
i++)
            {
count[str[i]]++;
            }             int
max = -1;             char
result = ' ';
             for (int i = 0; i < str.Length;
i++)
            {                 if (max <
count[str[i]])
                {
max = count[str[i]];
result = str[i];
                }
            }
            Console.WriteLine("Maximum occuring character in string: " +
resul t);
            Console.ReadLine();
        }
    }
}
```

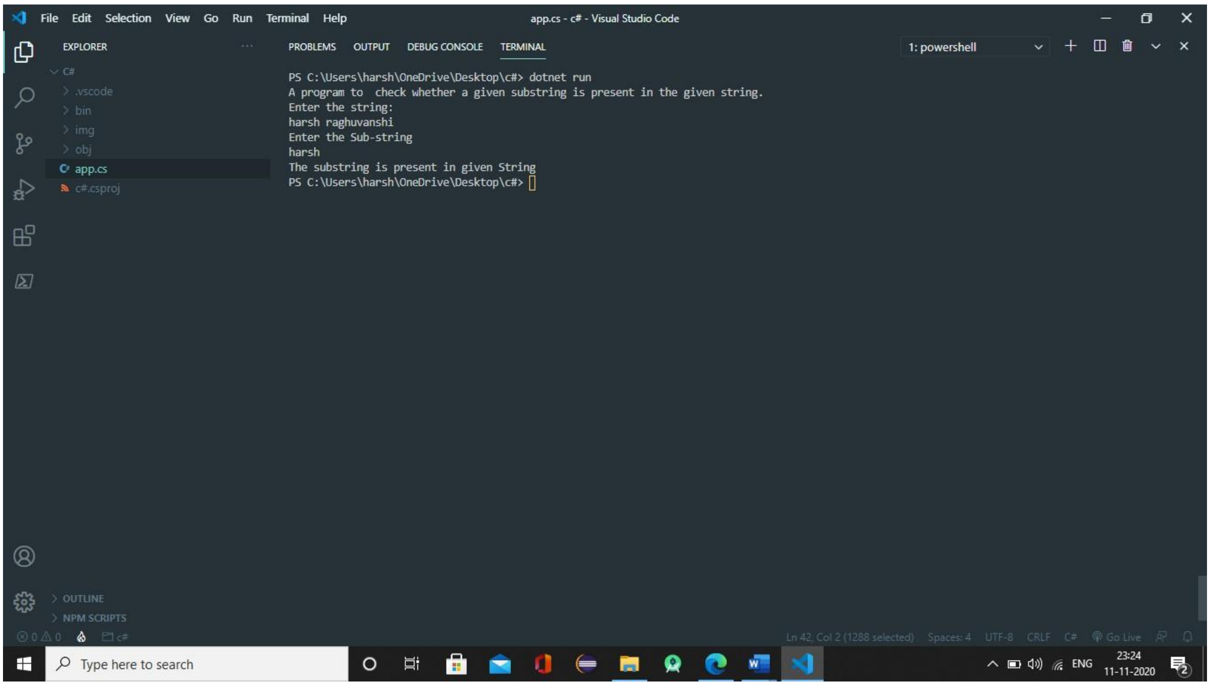


```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Enter the string:
harsh
Maximum occuring character in string: h
```

17. Write a program to check whether a given substring is present in the given string



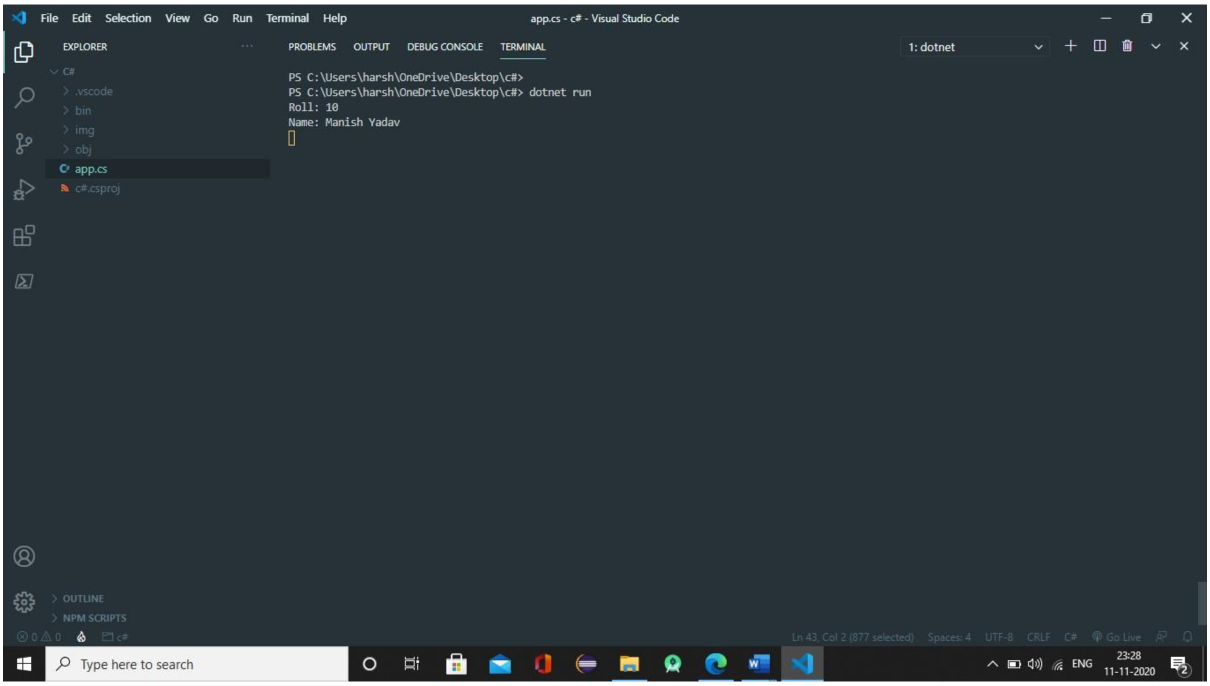
```
using System;
 namespace TestConsoleApp{
public class StringSubString
    {         public static void
Main(string[] args)
        {
            string str, substr;
            Console.WriteLine("A program to  check whether a given substring
i s present in the given string.");
            Console.WriteLine("Enter the string: ");
str = Console.ReadLine();
            Console.WriteLine("Enter the Sub-string");
substr = Console.ReadLine();
             int flag = 0;              for (int i = 0; i <=
str.Length - substr.Length; i++)
            {                for (int j = i; j < i +
substr.Length; j++)
                {                       flag = 1;
if (str[j] != substr[j - i])
                    {
flag = 0;
break;
                    }
}                 if (flag ==
1)                     break;
            }
             if (flag ==
1)
            {
                Console.WriteLine("The substring is present in given String");
            }
else
            {
                Console.WriteLine("The substring is NOT present in given
Strin g");
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
A program to  check whether a given substring is present in the given string.
Enter the string:
harsh raghuvanshi
Enter the Sub-string
harsh
The substring is present in given String
PS C:\Users\harsh\OneDrive\Desktop\c#>
```

18. Write a Program for Encapsulation

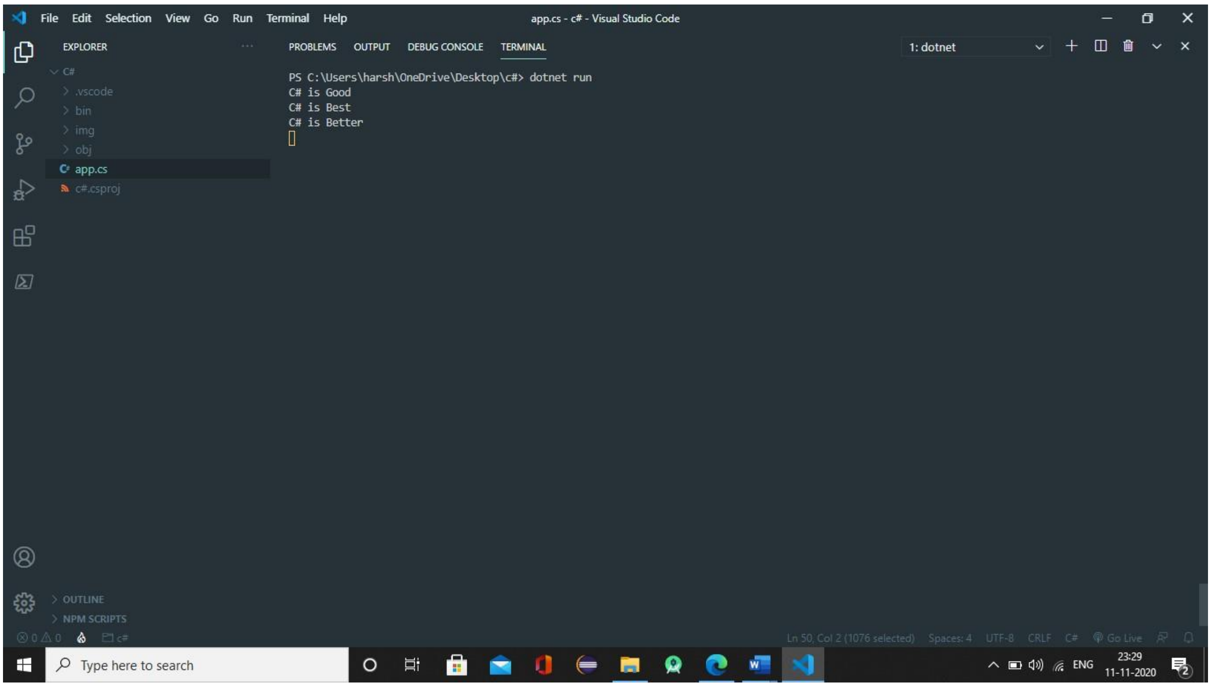
```
using System;
 namespace
TestConsoleApp{
class Student
    {         private int
roll;         private
string name;         public
int Roll
        {             get
{                 return
roll;
            }
set             {
roll = value;
            }         }
public string Name
        {             get
{                 return
name;
            }
set             {
name = value;
            }
        }
}
    class Program
    {         static void
Main(string[] args)
        {
            Student A = new Student();
            A.Roll = 10;
            A.Name = "Manish Yadav";
            Console.WriteLine("Roll: " + A.Roll);
            Console.WriteLine("Name: " + A.Name);
            Console.ReadLine();
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Roll: 10
Name: Manish Yadav
```

19. Write a program for Abstraction

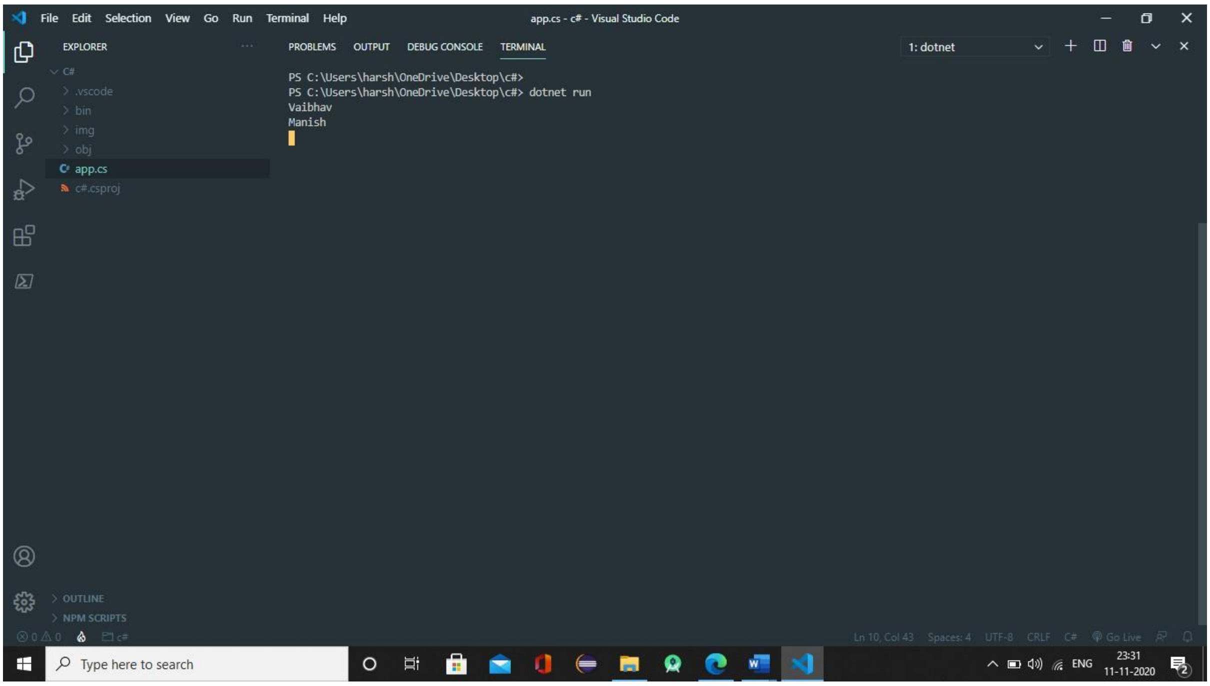
```
using System;
 namespace TestConsoleApp{
public class Abstraction
    {         abstract
class Cs
        {             public abstract
void Fun();
        }
         private class Good :
Cs
        {             public override
void Fun()
            {
                Console.WriteLine("C# is Good");
            }
        }
         private class Best :
Cs
        {             public override
void Fun()
            {
                Console.WriteLine("C# is Best");
            }
        }
         private class Better :
Cs
        {             public override
void Fun()
            {
                Console.WriteLine("C# is Better");
            }
        }

        public class MyClass
        {             public static
void Main()
            {
                Cs c;
c = new Good();
                c.Fun();
c = new Best();
                c.Fun();
c = new Better();
                c.Fun();
                Console.ReadLine();



            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
C# is Good
C# is Best
C# is Better
```

20. Write a program for single Inheritence

```
using System;
 namespace TestConsoleApp{
public class Inheritence
    {         class
MainClass
        {             public
void Print()
            {
                Console.WriteLine("vaibhav");
            }         }
class Subclass : MainClass
        {
void Print1()
            {
                Console.WriteLine("Manish");
            }             static void
Main(string[] args)
            {
                Subclass s = new Subclass();
                s.Print();
                s.Print1();
                Console.ReadLine();
            }
        }
    }
}
```



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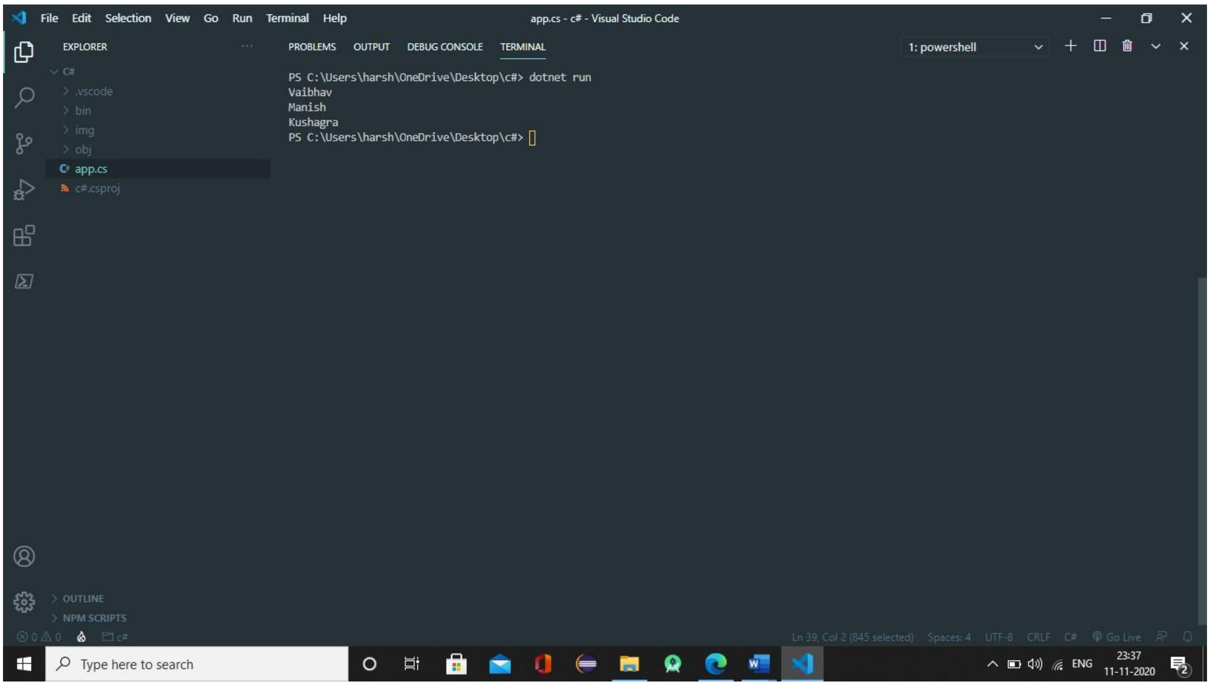
app.cs - c# - Visual Studio Code
EXPLORER
C#
.vscode
bin
img
obj
app.cs
c#.csproj
OUTLINE
NPM SCRIPTS
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
Ln 10, Col 43 Spaces: 4 UTF-8 CRLF C# Go Live
Type here to search
ENG
23:31
11-11-2020

```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Vaibhav
Manish
```

21. Write a program for Multilevel Inheritence

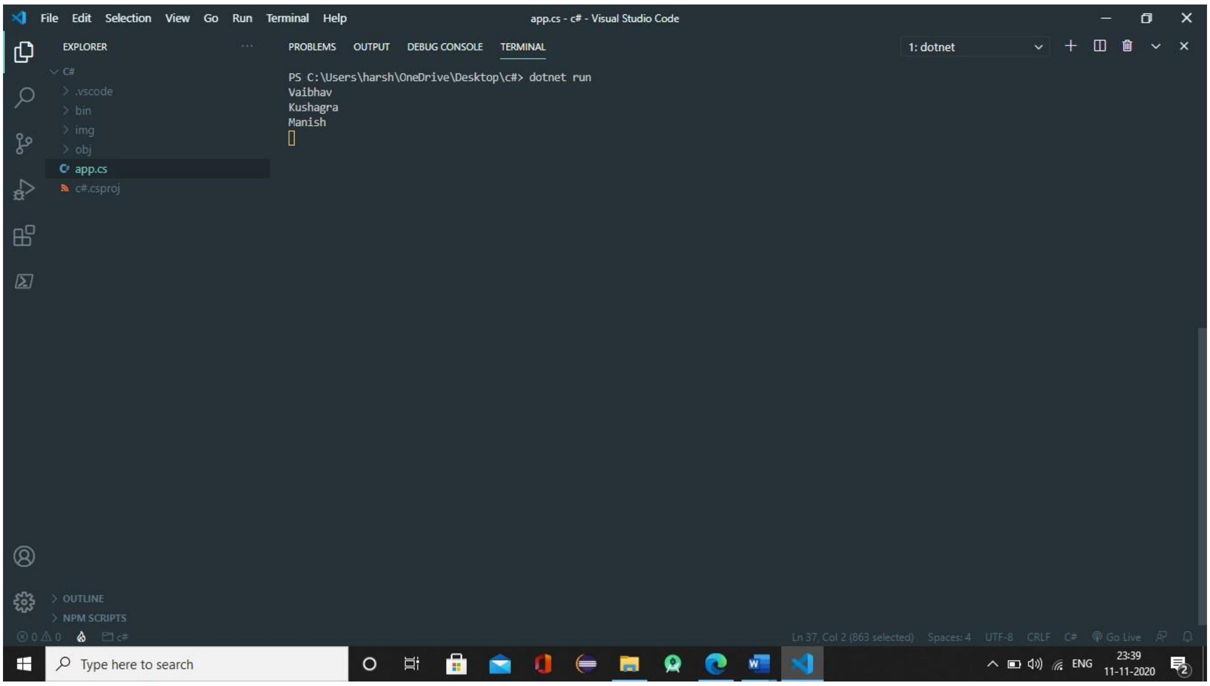
```
using System;
 namespace
TestConsoleApp{
    public class MultiInheritence
    {         class
MainClass
        {             public
void Print()
            {
                Console.WriteLine("Vaibhav");
            }         }
class Subclass : MainClass
        {             public
void Print1()
            {
                Console.WriteLine("Manish");
            }


        }         class Subclass2
: Subclass
        {
             public void
Print2()
            {
                Console.WriteLine("Kushagra");
            }             static void
Main(string[] args)
            {
                Subclass2 s = new Subclass2();
                s.Print();
                s.Print1();
                s.Print2();
                // Console.ReadLine();
            }


        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Vaibhav
Manish
Kushagra
PS C:\Users\harsh\OneDrive\Desktop\c#> 
```

22. Write a program for multiple Inheritence

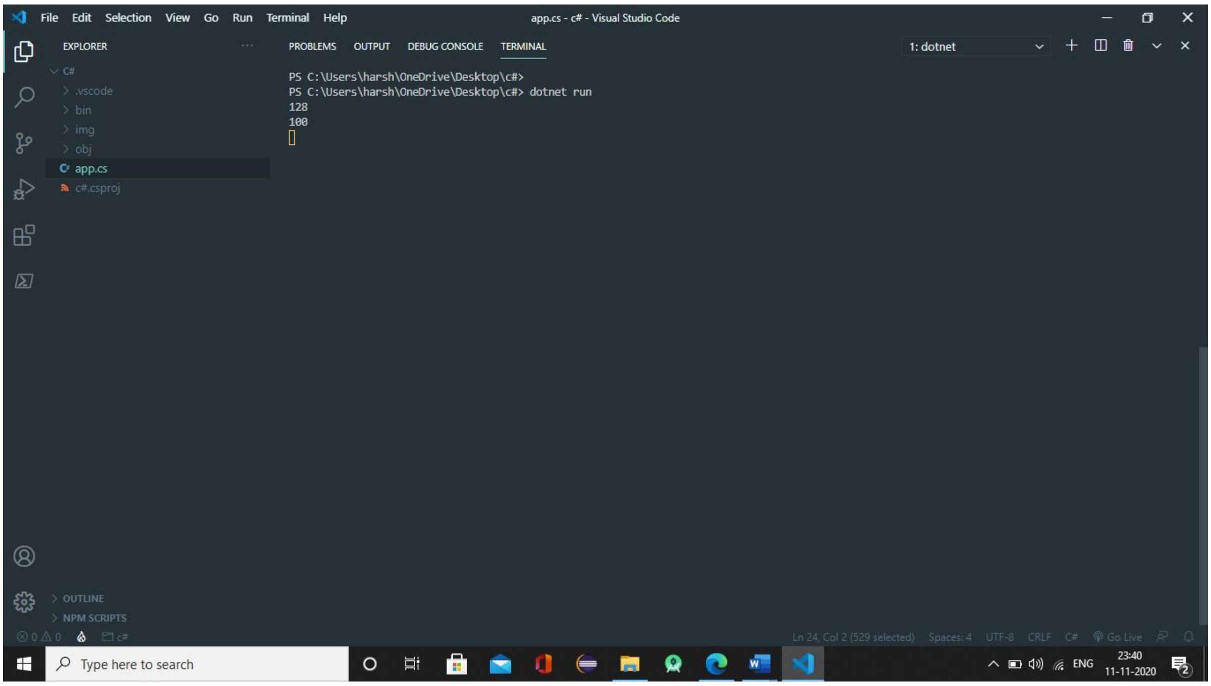
```
using System;
 namespace TestConsoleApp{
public class MultipleInheritence
    {         class
MainClass
        {             public
void Print()
            {
                Console.WriteLine("Vaibhav");
            }         }
interface MainClass1
        {
void Print1();
        }         class Subclass : MainClass,
MainClass1
        {
void Print2()
            {
                Console.WriteLine("Manish");
            }
public void Print1()
            {
                Console.WriteLine("Kushagra");
            }             static void
Main(string[] args)
            {
                Subclass s = new Subclass();
                s.Print();
                s.Print1();
                s.Print2();
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Vaibhav
Kushagra
Manish
```

23. Write a program for method overloading

```
 using
System;
 namespace
TestConsoleApp{
    public class MethodOverloading
    {          static int Sum(int a,
int b)
        {
return a + b;
        }          static double Sum(double
a, double b)
        {
return a + b;
        }
         public static void
Main()
        {              int sum1 =
Sum(54, 74);
            double sum2 = Sum(34.84, 65.16);
            Console.WriteLine(sum1);
            Console.WriteLine(sum2);
            Console.ReadLine();
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
128
100
```

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app.cs - c# - Visual Studio Code
EXPLORER
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
C#
.vscode
bin
img
obj
app.cs
c#.csproj
OUTLINE
NPM SCRIPTS
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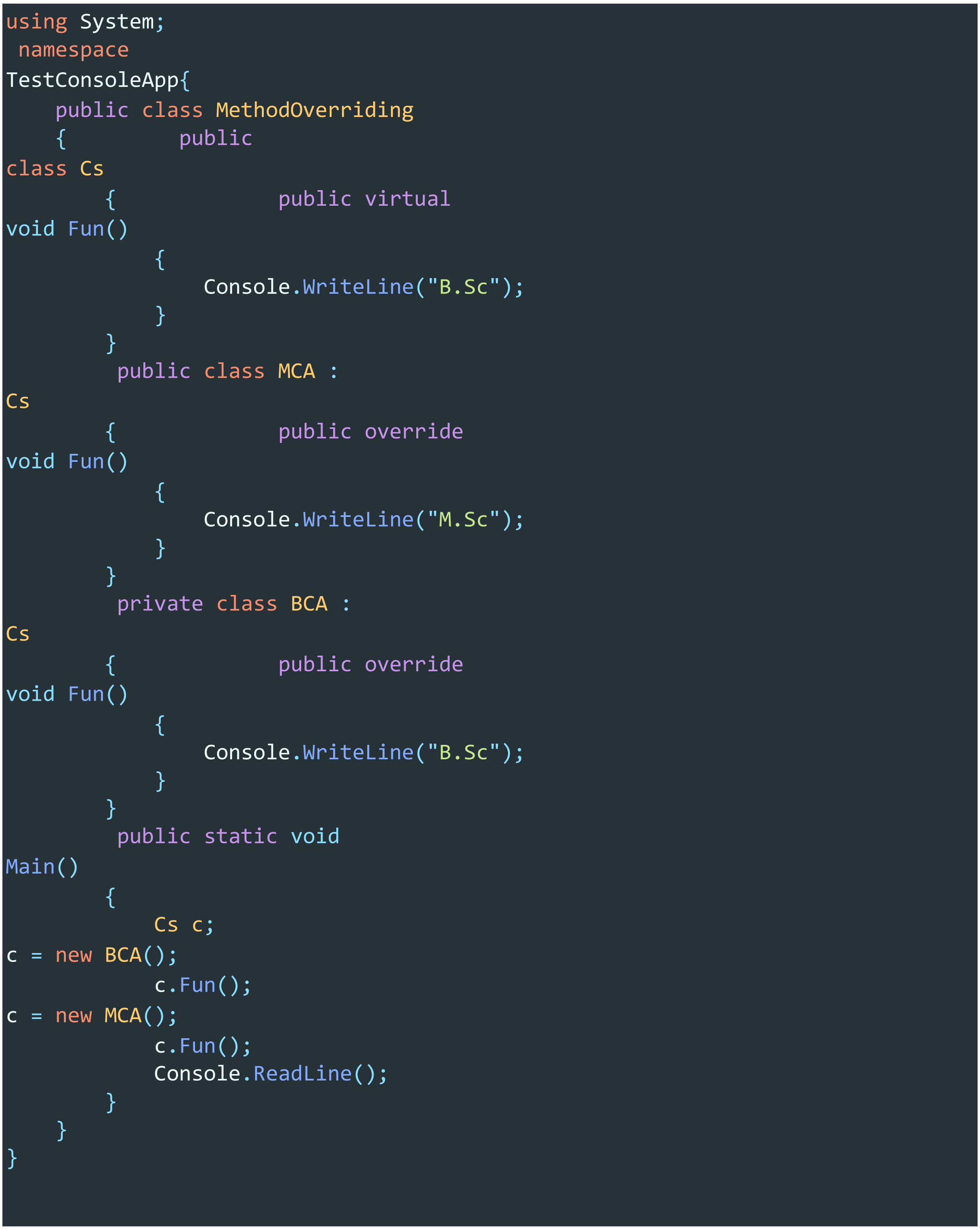
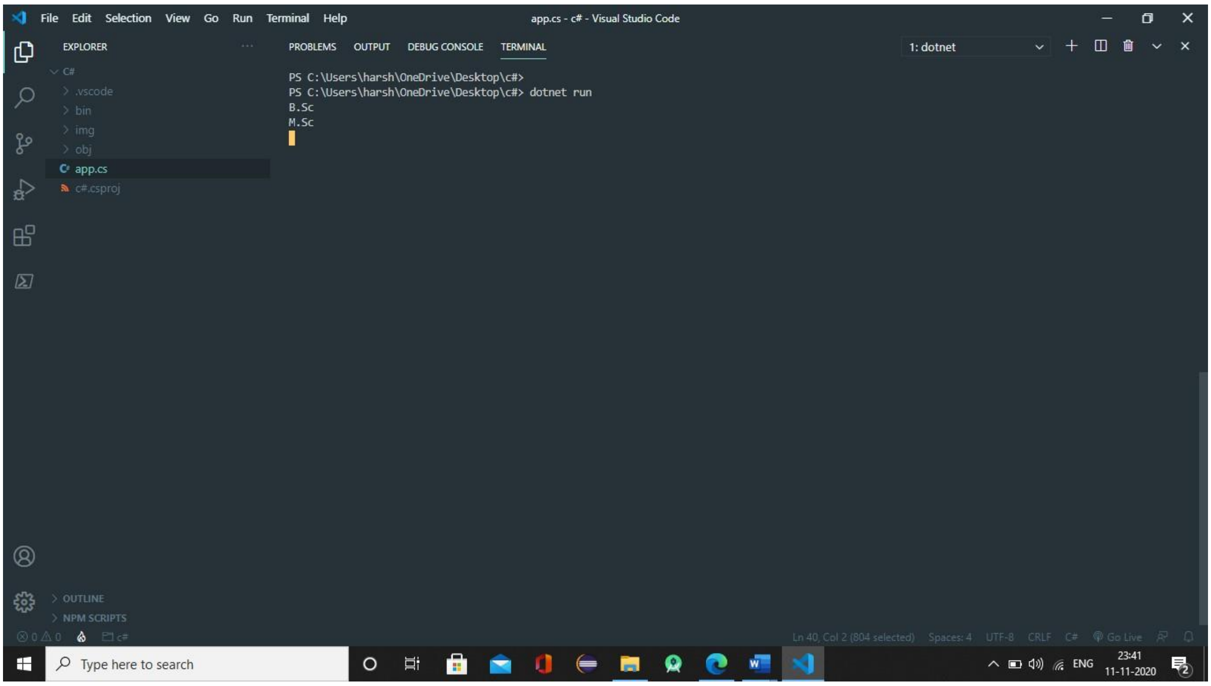
Type here to search
ENG
23:40
11-11-2020

24. Write a program for method overriding



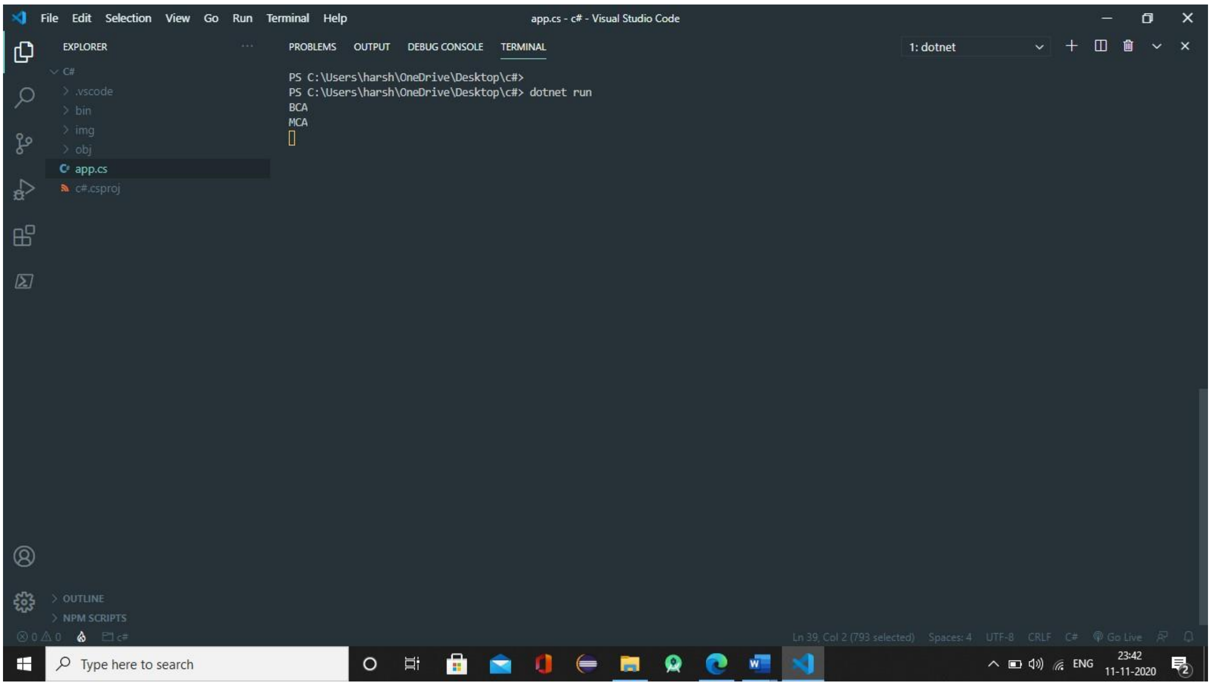
```
using System;
 namespace
TestConsoleApp{
    public class MethodOverriding
    {         public
class Cs
        {             public virtual
void Fun()
            {
                Console.WriteLine("B.Sc");
            }
        }
         public class MCA :
Cs
        {             public override
void Fun()
            {
                Console.WriteLine("M.Sc");
            }
        }
         private class BCA :
Cs
        {             public override
void Fun()
            {
                Console.WriteLine("B.Sc");
            }
        }
         public static void
Main()
        {
            Cs c;
c = new BCA();
            c.Fun();
c = new MCA();
            c.Fun();
            Console.ReadLine();
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
B.Sc
M.Sc
```

25. Write a program for Interface

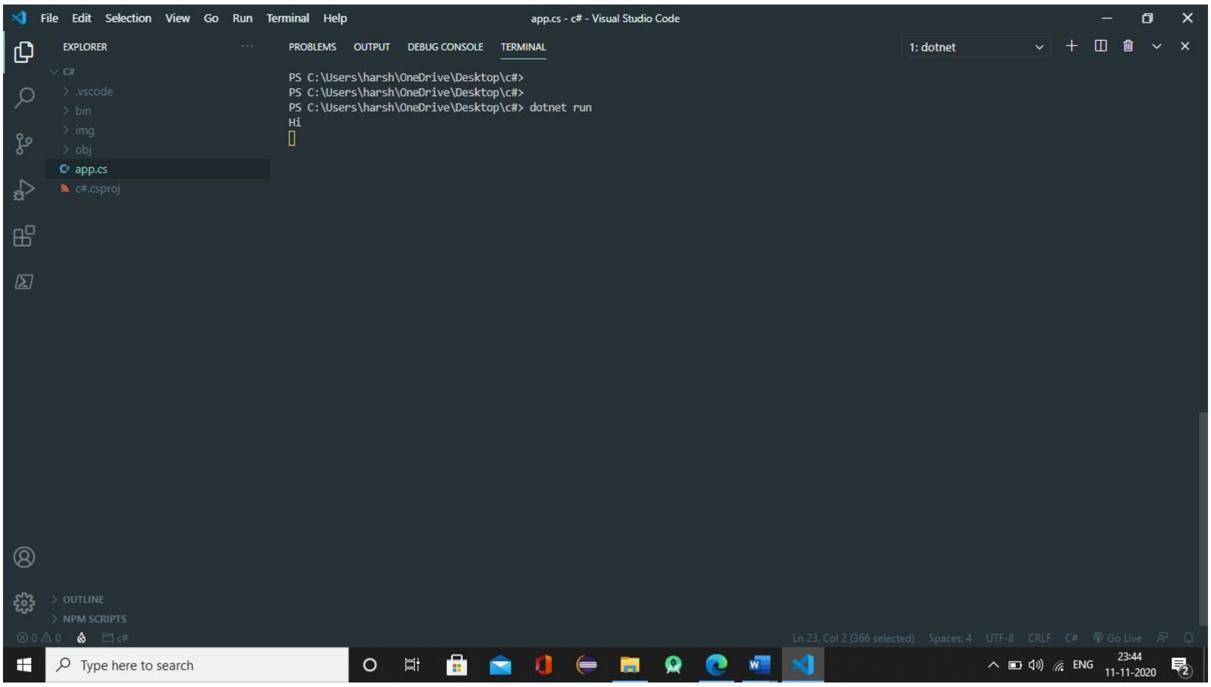
```
using System;
 namespace
TestConsoleApp{
public class Interface
    {         public
interface Cs
        {
void Fun();
        }
         private class Bca :
Cs
        {             public
void Fun()
            {
                Console.WriteLine("BCA");
            }         }
private class Mca : Cs
        {             public
void Fun()
            {
                Console.WriteLine("MCA");
            }
        }
         public class
MyClass
        {             public static void
Main(string[] args)
            {
                Cs c;
c = new Bca();
                c.Fun();
c = new Mca();
                c.Fun();
                Console.ReadLine();
            }
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
BCA
MCA
```

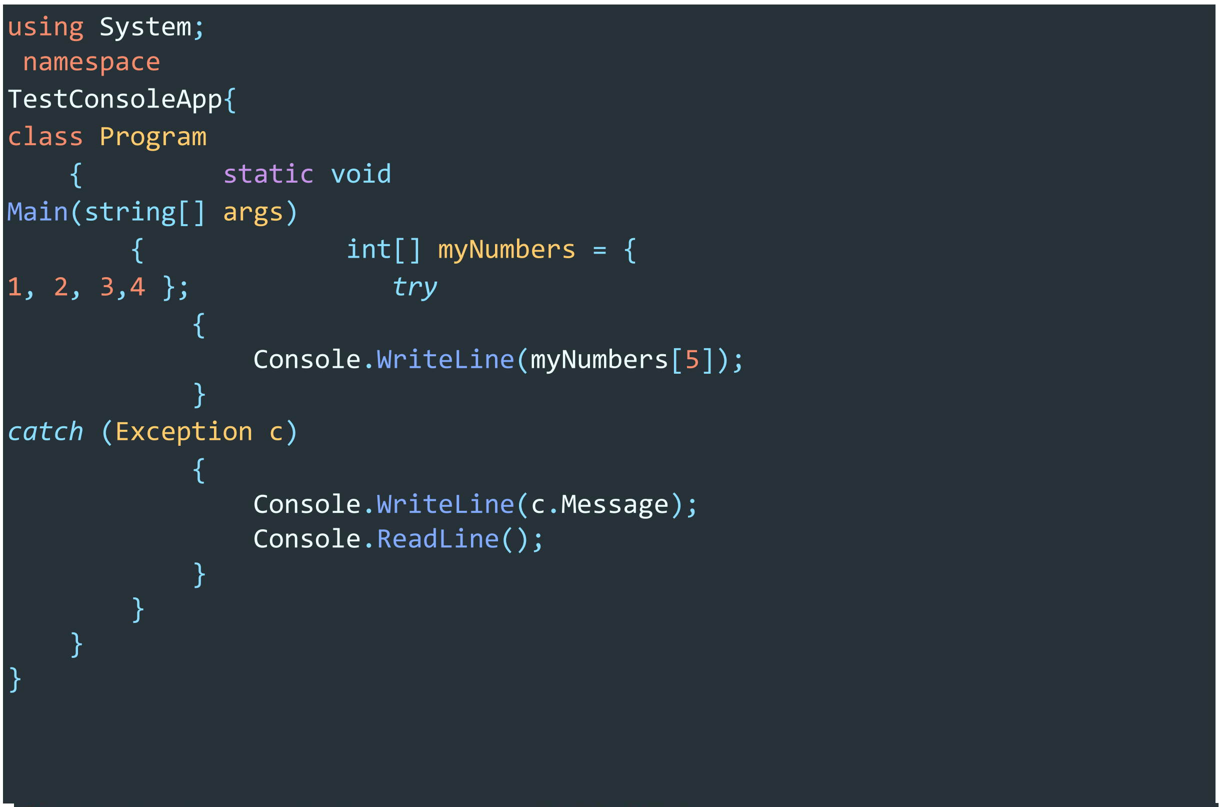
26. Write a program for Namespace

```
using System;
 namespace TestConsoleApp{class
Program
    {         static void
Main(string[] args)
        {
            A.B test = new A.B();
test.C();
        }
    }
}
namespace
A
{     public
class B
    {         public
void C()
        {
            Console.WriteLine("Hi");
            Console.ReadLine();
        }
    }
}
```

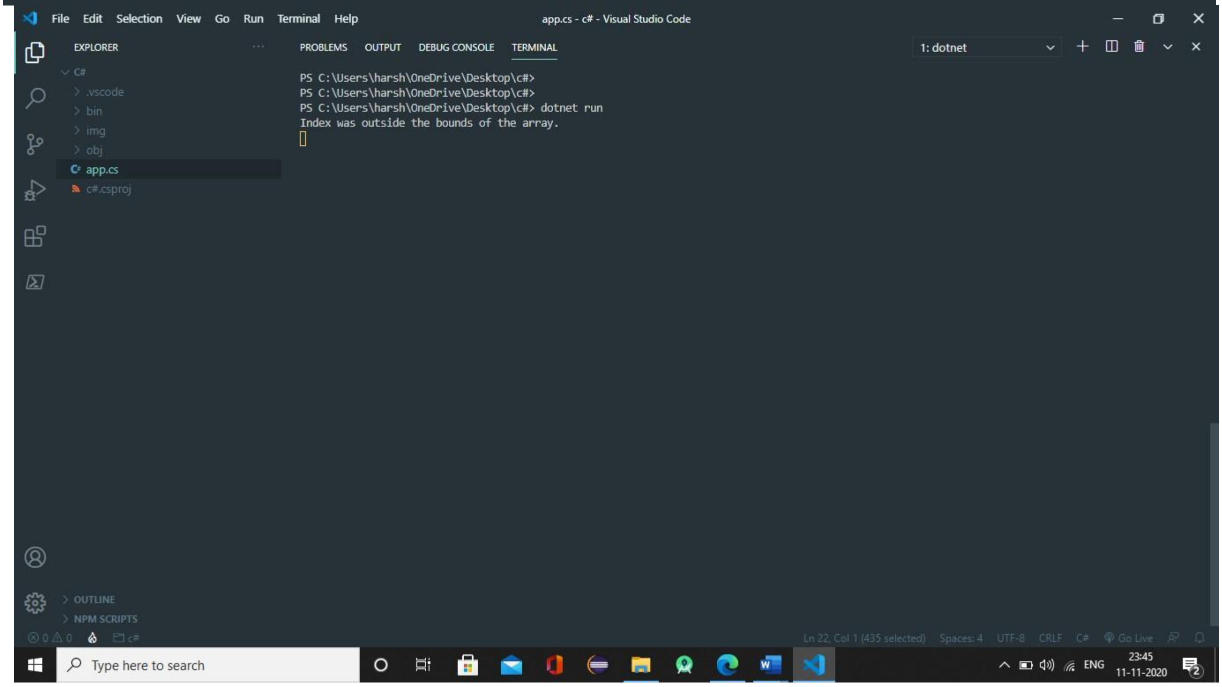


```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Hi
```

27. Write a program for exception handling through try and catch



```
using System;
 namespace
TestConsoleApp{
class Program
    {         static void
Main(string[] args)
        {               int[] myNumbers = {
1, 2, 3,4 };              try
            {
                Console.WriteLine(myNumbers[5]);
            }
catch (Exception c)
            {
                Console.WriteLine(c.Message);
                Console.ReadLine();
            }
        }
    }
}
```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app.cs - c# - Visual Studio Code
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C#
.vscode
bin
img
obj
app.cs
c#.csproj
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: dotnet
OUTLINE
NPM SCRIPTS
Ln 22, Col 1 (435 selected) Spaces: 4 UTF-8 CRLF C# Go Live
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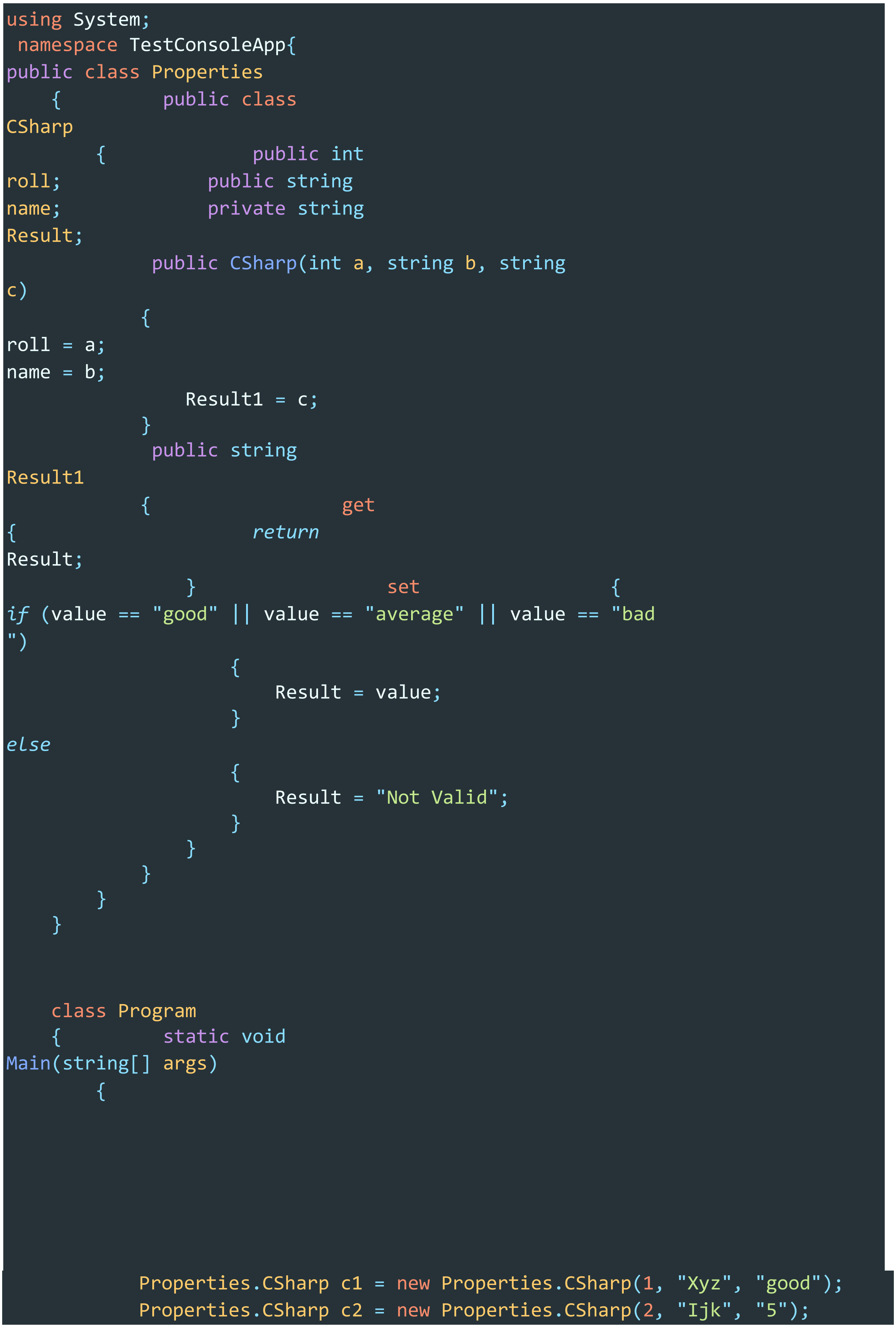
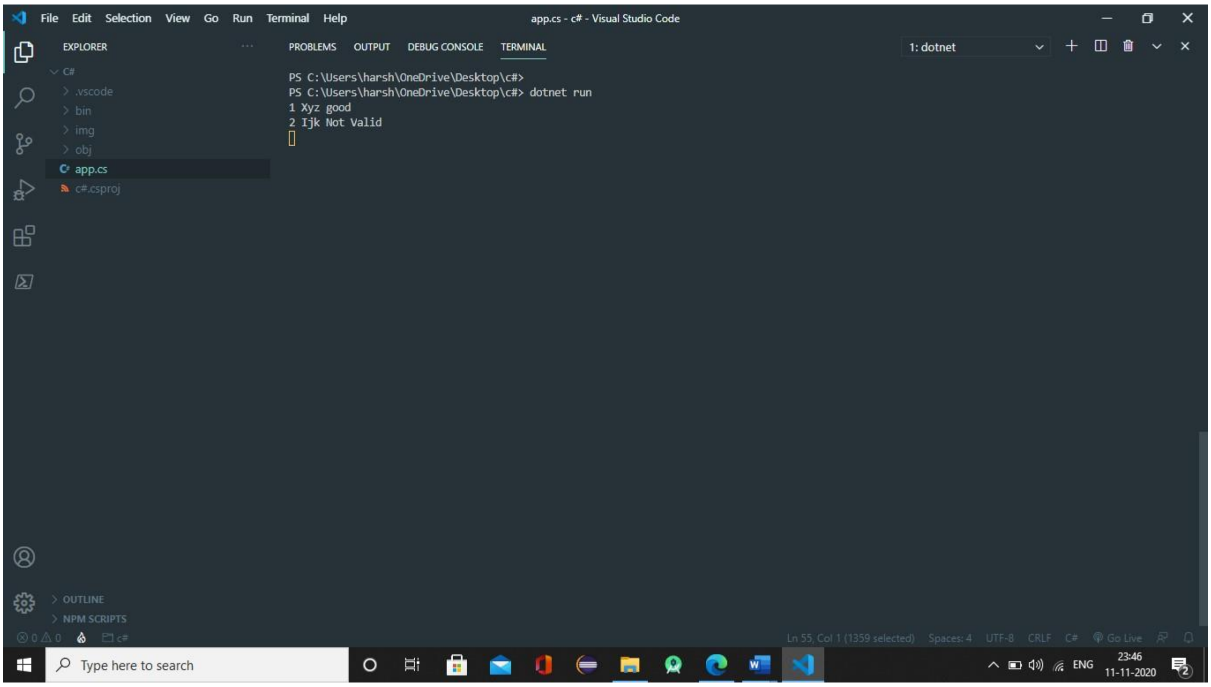
ENG
23:45
11-11-2020

```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Index was outside the bounds of the array.
```

28. Write a program for Properties

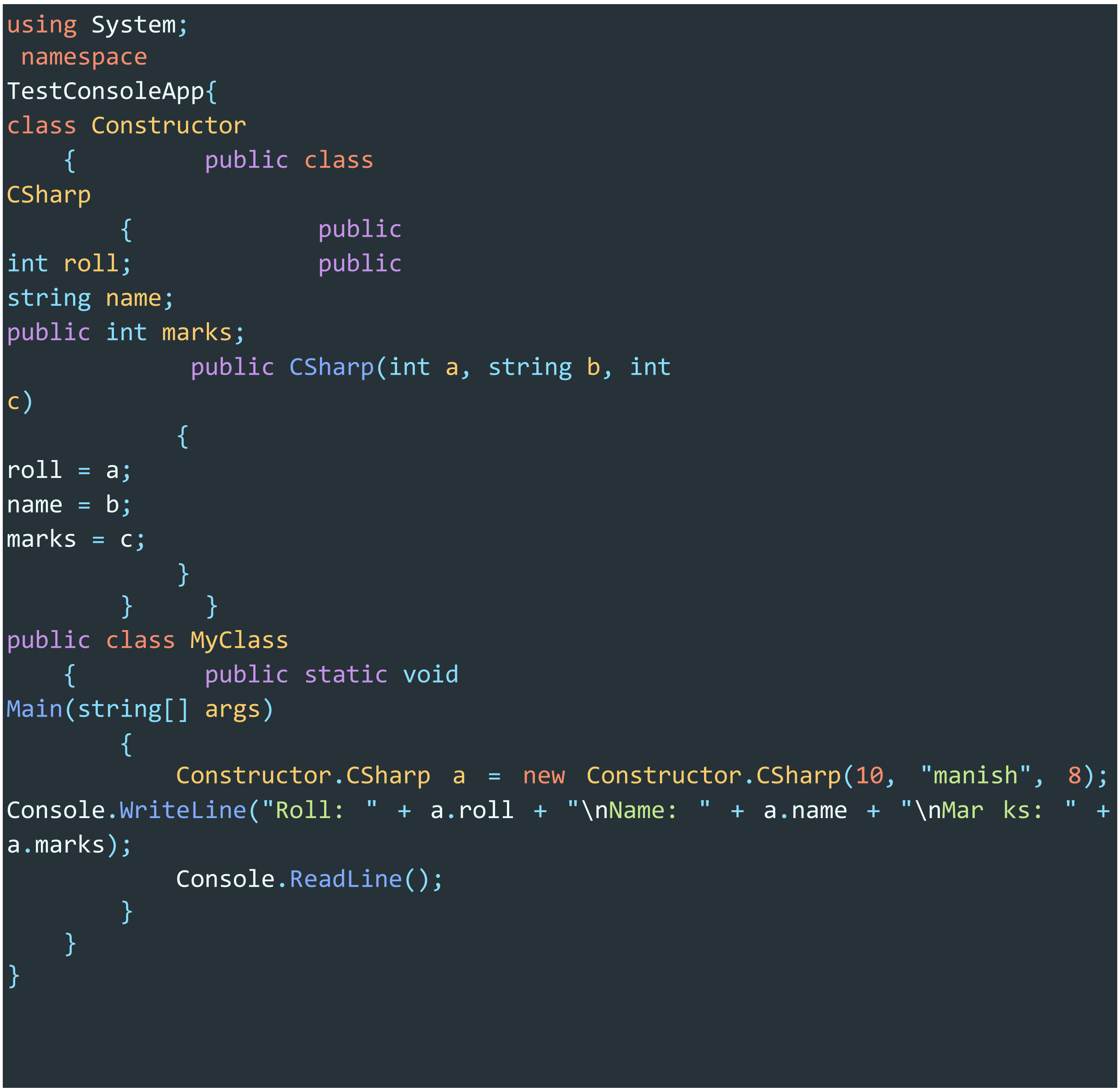


```
using System;
 namespace TestConsoleApp{
public class Properties
    {         public class
CSharp
        {             public int
roll;             public string
name;             private string
Result;
             public CSharp(int a, string b, string
c)
            {
roll = a;
name = b;
                Result1 = c;
            }
             public string
Result1
            {                 get
{                     return
Result;
                }                 set                 {
if (value == "good" || value == "average" || value == "bad
")
                    {
                        Result = value;
                    }
else
                    {
                        Result = "Not Valid";
                    }
                }
            }
        }
    }


    class Program
    {         static void
Main(string[] args)
        {





            Properties.CSharp c1 = new Properties.CSharp(1, "Xyz", "good");
            Properties.CSharp c2 = new Properties.CSharp(2, "Ijk", "5");
            Console.WriteLine(c1.roll + " " + c1.name + " " + c1.Result1);
            Console.WriteLine(c2.roll + " " + c2.name + " " + c2.Result1);
            Console.ReadLine();
        }
    }
}
```

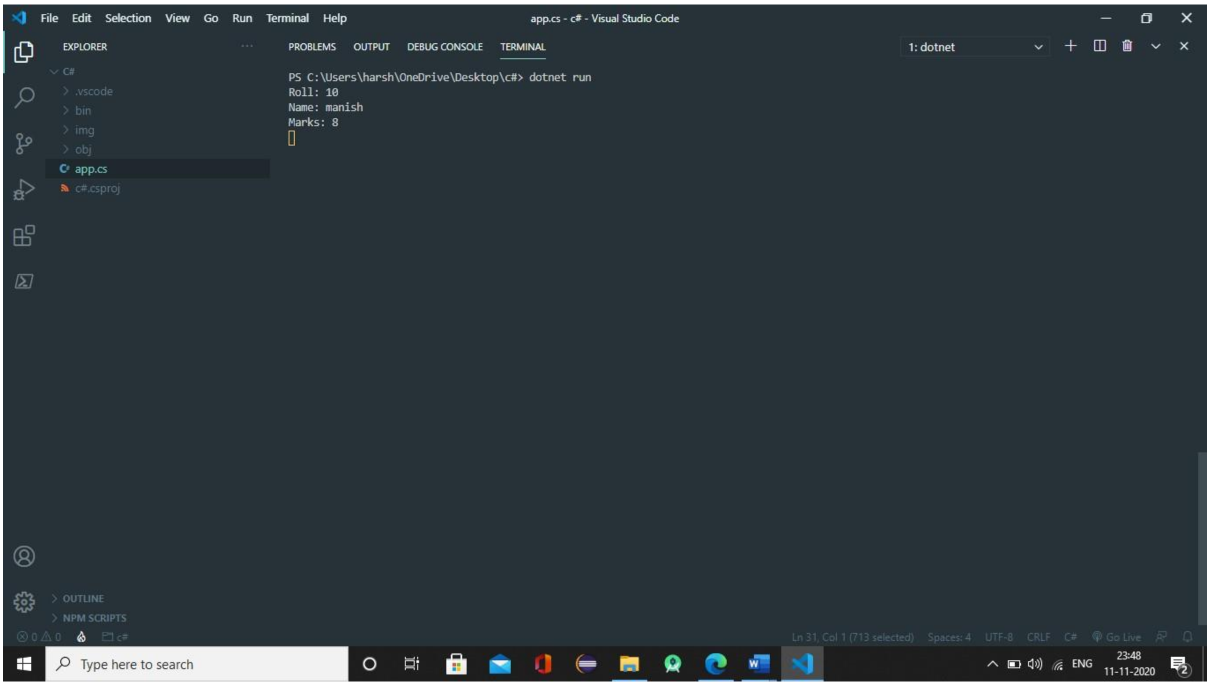


```
PS C:\Users\harsh\OneDrive\Desktop\c#>
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
1 Xyz good
2 Ijk Not Valid
```

29. Write a program for Constructors



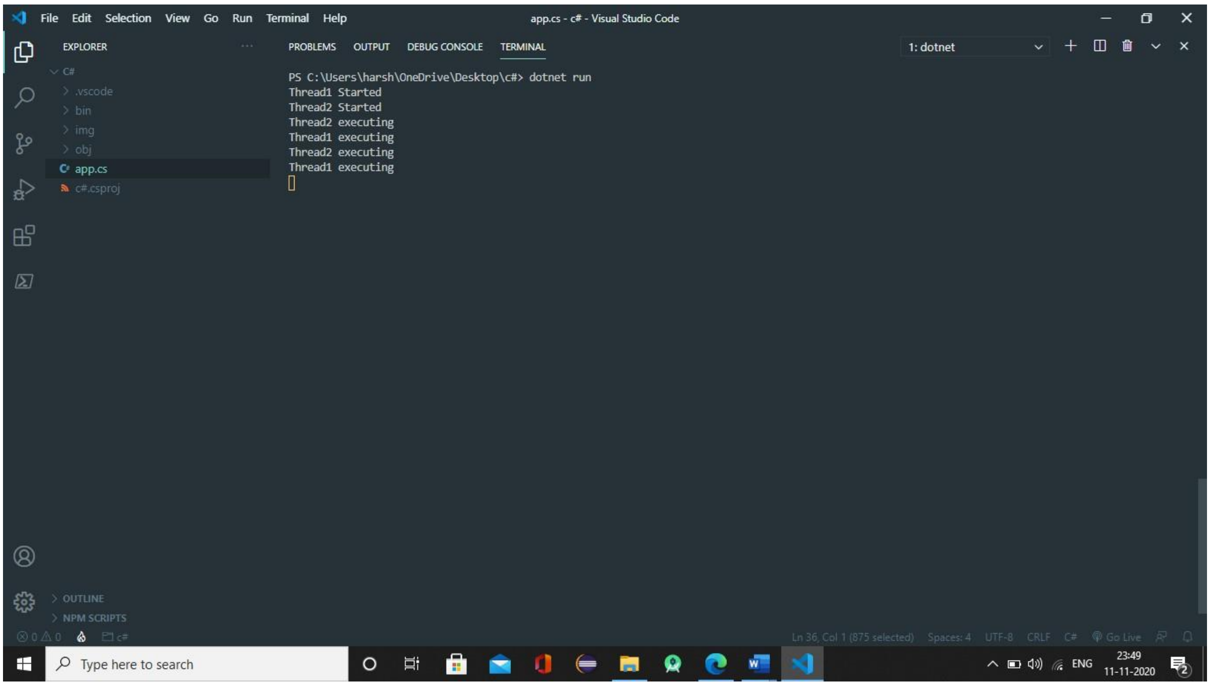
```
using System;
 namespace
TestConsoleApp{
class Constructor
    {         public class
CSharp
        {             public
int roll;             public
string name;
public int marks;
             public CSharp(int a, string b, int
c)
            {
roll = a;
name = b;
marks = c;
            }
        }     }
public class MyClass
    {         public static void
Main(string[] args)
        {
            Constructor.CSharp a = new Constructor.CSharp(10, "manish", 8);
Console.WriteLine("Roll: " + a.roll + "\nName: " + a.name + "\nMar ks: " +
a.marks);
            Console.ReadLine();
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Roll: 10
Name: manish
Marks: 8
```

30. Write a program for Threading

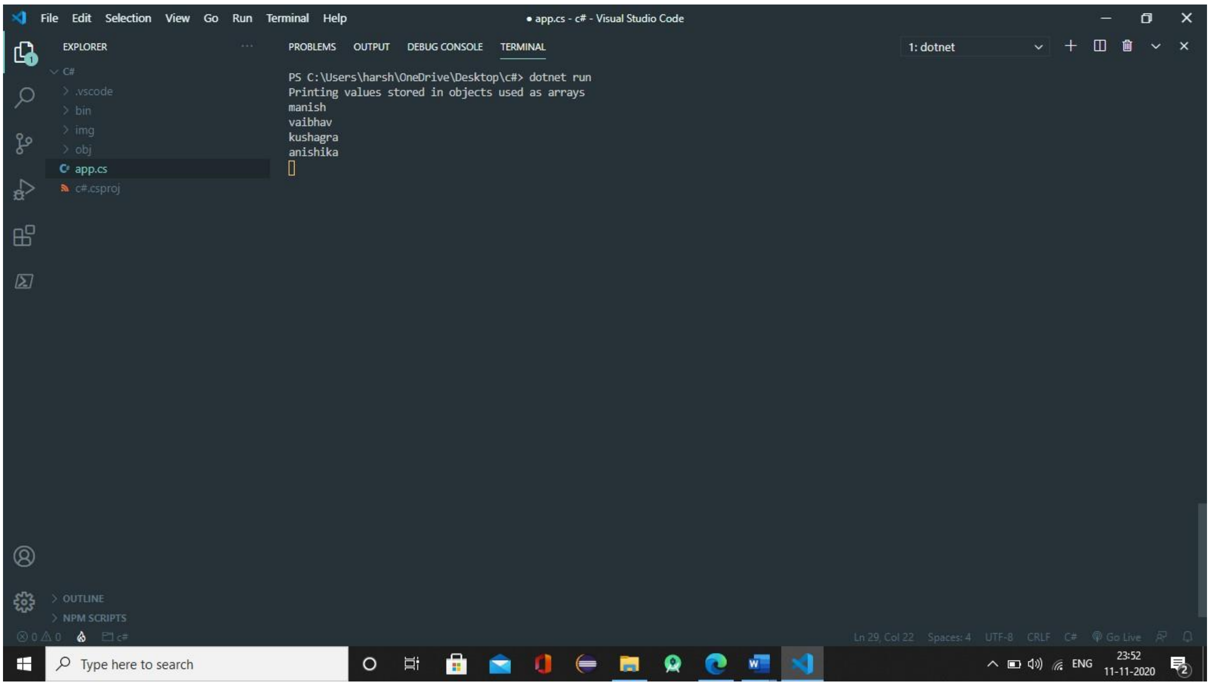
```
using System;
using System.Threading;
 namespace
TestConsoleApp{
class Program
    {         static
void T1()
        {
            Console.WriteLine("Thread1 Started");
            Thread.Sleep(5000);
            Console.WriteLine("Thread1 executing");
Thread.Sleep(5000);
            Console.WriteLine("Thread1 executing");
        }
         static void
T2()
        {
            Console.WriteLine("Thread2 Started");
            Thread.Sleep(5000);
            Console.WriteLine("Thread2 executing");
Thread.Sleep(5000);
            Console.WriteLine("Thread2 executing");
        }
         public static void
Main()
        {
            Thread t1 = new
Thread(T1);             Thread t2 =
new Thread(T2);
t1.Start();             t2.Start();
            Console.ReadLine();
        }
    }
}
```



```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Thread1 Started
Thread2 Started
Thread2 executing
Thread1 executing
Thread2 executing
Thread1 executing
```

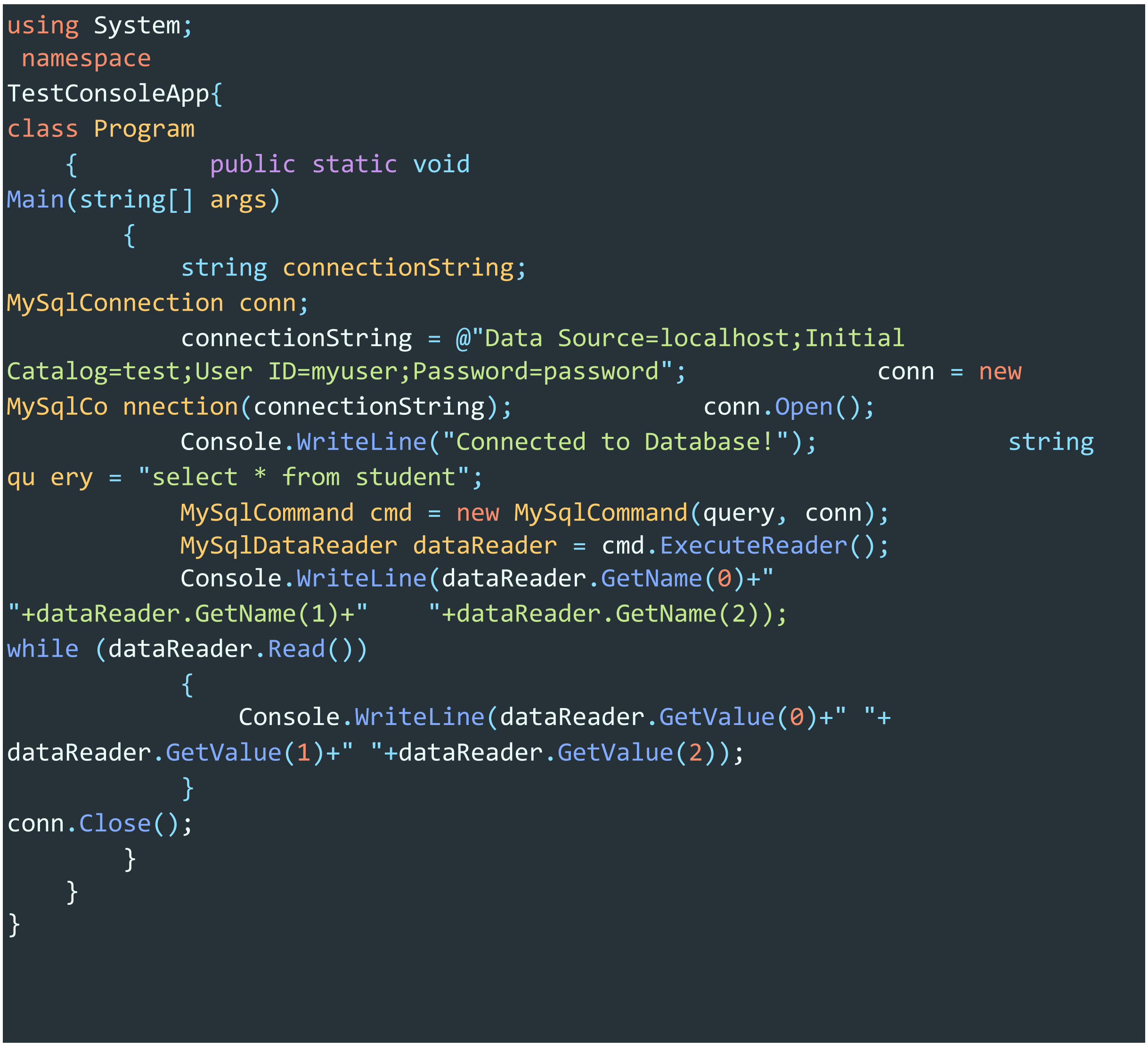
31. Write a program for Indexer

```
using System;
 namespace
TestConsoleApp{
class IndexerCreation
{     private string[] val = new
string[4];      public string this[int
index]
    {          get          {
return val[index];
        }          set
{              val[index] =
value;
        }
    }
}  class
MyClass
{      public static void
Main()
    {
        IndexerCreation ic = new
IndexerCreation();         ic[0] = "manish";
ic[1] = "vaibhav";         ic[2] = "kushagra";
ic[3] = "anishika";


        Console.Write("Printing values stored in objects used as arrays\n");
        Console.WriteLine(ic[0] + "\n" + ic[1] + "\n" + ic[2] + "\n" + ic[3]);
        Console.ReadLine();


    }
}
}
```

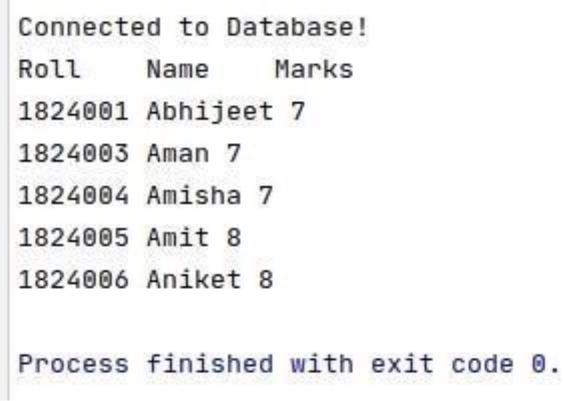


```
PS C:\Users\harsh\OneDrive\Desktop\c#> dotnet run
Printing values stored in objects used as arrays
manish
vaibhav
kushagra
anishika
```

32. Write a program to access data from database using ADO.NET



```
using System;
 namespace
TestConsoleApp{
class Program
    {          public static void
Main(string[] args)
        {
            string connectionString;
MySqlConnection conn;
            connectionString = @"Data Source=localhost;Initial
Catalog=test;User ID=myuser;Password=password";             conn = new
MySqlCo nnection(connectionString);             conn.Open();
            Console.WriteLine("Connected to Database!");            string
qu ery = "select * from student";
            MySqlCommand cmd = new MySqlCommand(query, conn);
            MySqlDataReader dataReader = cmd.ExecuteReader();
            Console.WriteLine(dataReader.GetName(0)+"
"+dataReader.GetName(1)+"    "+dataReader.GetName(2));
while (dataReader.Read())
            {
                Console.WriteLine(dataReader.GetValue(0)+" "+
dataReader.GetValue(1)+" "+dataReader.GetValue(2));
            }
conn.Close();
        }
    }
}
```



```
Connected to Database!
Roll    Name    Marks
1824001 Abhijeet 7
1824003 Aman 7
1824004 Amisha 7
1824005 Amit 8
1824006 Aniket 8

Process finished with exit code 0.
```