Question 3:

Aim:

The aim of this program is to validate a mobile number input based on specific formatting and numeric rules. The mobile number should be entered in the format XXXX-XXXXXX, where the total number of digits should be 10, and the first digit should be either 9 or 8.

PROGRAM:

```
using System;

class Validation
{
    static void Main()
    {
        // Input mobile number
        Console.Write("Enter your mobile number in the format XXXX-
XXXXXX: ");
        string mobileNumber = Console.ReadLine();

        // Validate mobile number format
        if (ValidateMobileNumber(mobileNumber))
        {
            Console.WriteLine("The mobile number is valid.");
        }
        else
        {
            Console.WriteLine("The mobile number is invalid.");
        }
    }

    static bool ValidateMobileNumber(string mobileNumber)
    {
        // Check if the format matches the pattern XXXX-XXXXXX
        if (mobileNumber.Length != 11 || mobileNumber[4] != '-')
        {
            return false;
        }

        // Extract the first part (before the hyphen) and second part
(after the hyphen)
        string firstPart = mobileNumber.Substring(0, 4);
        string secondPart = mobileNumber.Substring(5, 6);

        // Check if both parts are numeric
        if (!IsNumeric(firstPart) || !IsNumeric(secondPart))
        {
            return false;
        }

        // Check the length and first digit rules
```

```csharp
        string fullNumber = firstPart + secondPart;
        if (fullNumber.Length != 10 || (fullNumber[0] != '9' &&
fullNumber[0] != '8'))
        {
            return false;
        }

        return true;
    }

    static bool IsNumeric(string str)
    {
        foreach (char c in str)
        {
            if (!char.IsDigit(c))
            {
                return false;
            }
        }
        return true;
    }
}
```

Input:

Enter your mobile number in the format XXXX-XXXXXX: 9876-543210

Output:
The mobile number is valid.


```csharp
Main.cs                                    Share    Run    Output

1  using System;                                      mono /tmp/I3tMqQiIef.exe
2                                                     Enter your mobile number in the format XXXX-XXXXXX: 9876-543210
3  class Validation                                  The mobile number is valid.
4  {
5      static void Main()                             === Code Execution Successful ===
6      {
7          // Input mobile number
8          Console.Write("Enter your mobile number in the format XXXX-XXXXXX: ");
9          string mobileNumber = Console.ReadLine();
10
11         // Validate mobile number format
12         if (ValidateMobileNumber(mobileNumber))
13         {
14             Console.WriteLine("The mobile number is valid.");
15         }
16         else
17         {
18             Console.WriteLine("The mobile number is invalid.");
19         }
20     }
21
22     static bool ValidateMobileNumber(string mobileNumber)
23     {
24         // Check if the format matches the pattern XXXX-XXXXXX
25         if (mobileNumber.Length != 11 || mobileNumber[4] != '-')
26         {
27             return false;
28         }
29
30         // Extract the first part (before the hyphen) and second part (after
           the hyphen)
31         string firstPart = mobileNumber.Substring(0, 4);
```