

Arrays:

```
using System;
```

```
using System.Collections.Generic;
```

```
using System.Linq;
```

```
using System.Text;
```

```
using System.Threading.Tasks;
```

```
internal class Array
```

```
{
```

```
    // Constructor for multi-dimensional array (2D array)
```

```
    public Array()
```

```
    {
```

```
        // Prompt user to enter the size of the row
```

```
        Console.WriteLine("Enter the size of row:");
```

```
        int n = Convert.ToInt32(Console.ReadLine());
```

```
        // Prompt user to enter the size of the column
```

```
        Console.WriteLine("Enter the size of column");
```

```
        int m = Convert.ToInt32(Console.ReadLine());
```

```
        // Declare a 2D array with the specified size
```

```
        int[,] a = new int[n, m];
```

```
        // Prompt user to enter the elements of the array
```

```
        Console.WriteLine("Enter the elements of the array:");
```

```
        for (int i = 0; i < n; i++)
```

```
        {
```

```
            for (int j = 0; j < m; j++)
```

```

    {
        Console.Write($"Element at ({i},{j}): ");
        a[i, j] = Convert.ToInt32(Console.ReadLine());
    }
}

// Display the elements of the 2D array
Console.WriteLine("The elements of two dimensional array are:");
for (int i = 0; i < n; i++)
{
    for (int j = 0; j < m; j++)
    {
        Console.Write(a[i, j] + "\t");
    }
    Console.WriteLine();
}

// Method for single-dimensional array (1D array)
public void SingleDimensionalArray()
{
    // Prompt user to enter the size of the array
    Console.WriteLine("Enter the size of array:");
    int n = Convert.ToInt32(Console.ReadLine());

    // Declare a 1D array with the specified size
    int[] a = new int[n];

```

```

// Prompt user to enter the elements of the array
Console.WriteLine("Enter the elements of the array:");
for (int i = 0; i < n; i++)
{
    a[i] = Convert.ToInt32(Console.ReadLine());
}

// Display the elements of the 1D array
Console.WriteLine("The elements of the array are:");
for (int i = 0; i < n; i++)
{
    Console.WriteLine(a[i]);
}
}

// Entry Point (Main method)
public static void Main(string[] args)
{
    // Create an instance of the Array class to run the constructor for 2D array
    new Array();

    // Create an instance of the Array class to run the method for 1D array
    Array arrayObj = new Array();
    arrayObj.SingleDimensionalArray();
}
}

```