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AGENDA:

- BUBBLE SORT USING ARRAYS
- LINEAR SEARCH
- BINARY SEARCH

BUBBLE SORT:

•It is a simplest sorting Algorithm that arranges elements of a list in a certain order. (Either Ascending or Descending Order)

BUBBLE SORT PROGRAM IN C#:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System. Threading. Tasks;
namespace BubbleSort
  internal class Program
     static void Main(string[] args)
       int[] a = new int[] { 3, 7, 5, 9, 1 };
       int temp;
       for (int i=0; i\le a.Length-1; i++)
```

```
for (int j=0; j<=a.Length-i-1;i++)
 if (a[j] > a[j+1])
    temp = a[j+1];
    a[j+1]=a[j];
    a[j] = temp;
foreach (var v in a)
  Console.WriteLine(v);
  Console.ReadLine();
```

LINEAR SEARCH:

• The function linearSearch() performs the searching and returns the position of the target element if it is present otherwise returns the value of -1.

• Code:

```
//Array declaration and intialisation
```

Int [] data = new int [] $\{3,8,10,25,27,29\}$

Int input;

BINARY SEARCH():

• Binary search works on a sorted array. The value is compared with the middle element of the array. If equality is not found, then the half part is eliminated in which the value is not there. In the same way, the other half part is searched.