# Engineering Animuthyam

## Java DSA – Course Part - 31

## Sliding Window or Two pointers

**Course Link:**
https://www.youtube.com/playlist?list=PLjzLBp9HHZWhVXBSPS1VqxXXDoVk07gd9

**Website Link:**
https://www.vigneshreddyjulakanti.in/

**Hello machas, Bagunnara**

**Variable Size Sliding Window.**

# Bus has front door and back door.

# People are in line will enter from front door, exit from back door.

# Fixed Size sliding Window.

# If it can only have 3 people what will be the maximum weight it will have.

# Variable Size Sliding Window.

If It can accomated 10 kg max weight, what is maximum number of people it can have.

# Fixed sized sliding window

```java
import java.util.*;
class HelloWorld {
    public static void main(String[] args) {
        int arr[]={ 9 , 3, 4 ,8 , 1 };
        int k = 3;
        int l = 0;
        int ans = 0;
        int temp = 0;
        int n= arr.length;
        for(int r=0;r<n;r++){
            temp+=arr[r];
            if(r-l == k){
                temp-=arr[l];
                l++;
            }
            if( r-l+1 == k ){
                ans = Math.max(ans, temp);
            }
        }
        System.out.println(ans);
    }
}
```

# Variable size sliding window.

```java
import java.util.*;
class HelloWorld {
    public static void main(String[] args) {
        int arr[]={ 9 , 3, 4 ,1, 1 };
        int  k= 10;
        int l = 0;
        int ans = 0;
        int temp = 0;
        int n= arr.length;
        for(int r=0;r<n;r++){
            temp+=arr[r];

            while(temp > k){
                temp-=arr[l];
                l++;
            }

             ans = Math.max(ans, r-l+1);

        }
        System.out.println(ans);
    }
}
```