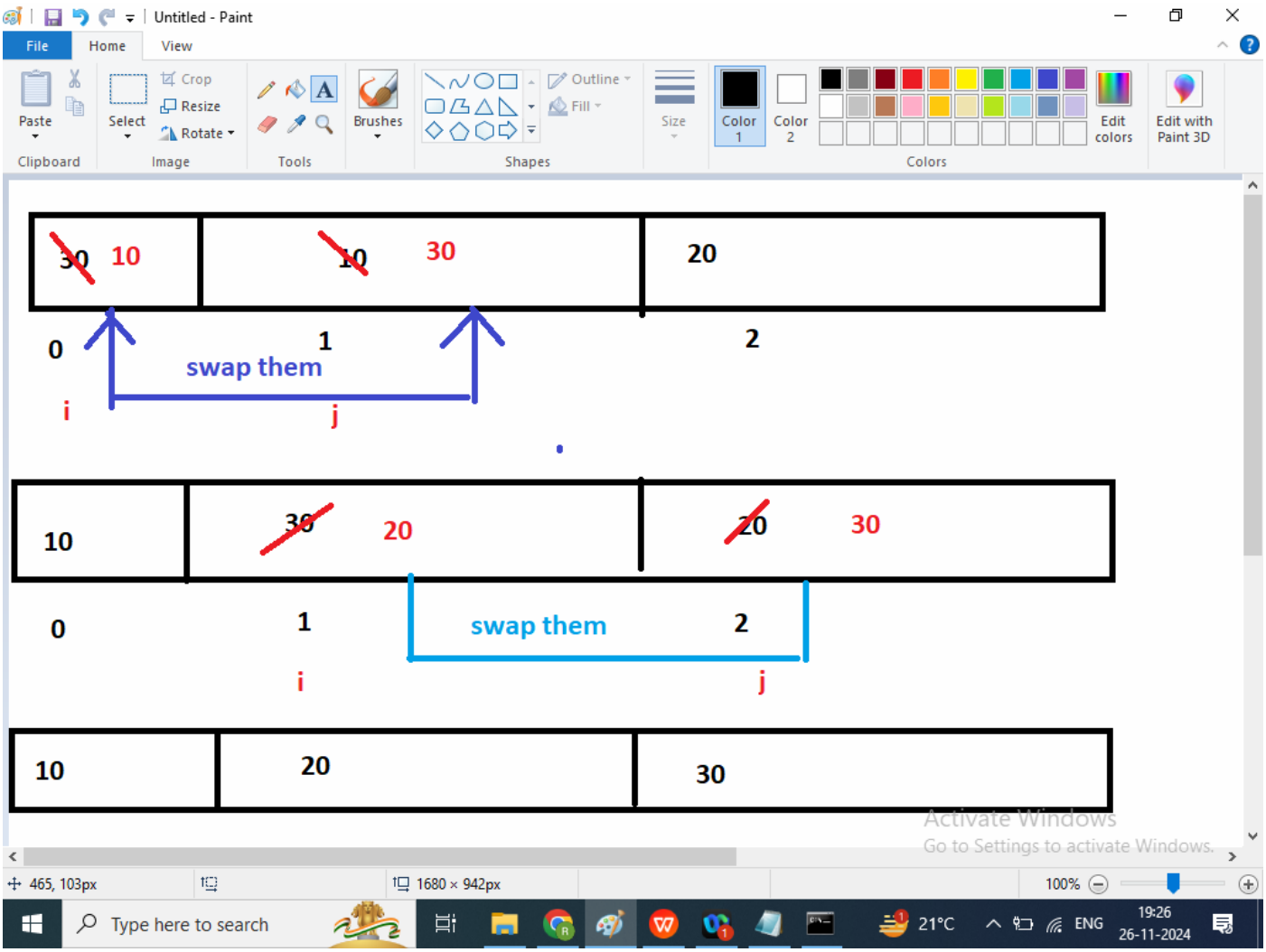
Q1.Write a java program to sort array in ascending order?

Array Elements: 30 10 20
Before Sorting :
30 10 20

After Sorting:
10 20 30




```
class A2{
	public static void main(String args[]){

	int arr[]={30,10,20,50,40,100,90,60,80,70};

	System.out.println("Before Sorting ");
	for(int i=0;i<arr.length;i++){
	System.out.print("\t"+arr[i]);
	}
```

```
        //bubble sort logic

        for(int i=0;i<arr.length;i++){//i=3
                for(int j=i+1;j<arr.length;j++){//j=3
                        if(arr[i]>arr[j]){
                        int temp=arr[i];
                        arr[i]=arr[j];
                        arr[j]=temp;

                        }
                }
        }


        System.out.println("\nAfter Sorting ");
        for(int i=0;i<arr.length;i++){
        System.out.print("\t"+arr[i]);
        }


        }
}
```

Q2.Write a java program to sort array in descending order?

Array Elements: 30 10 20
Before Sorting :
30   10   20

After Sorting:
30   20 10

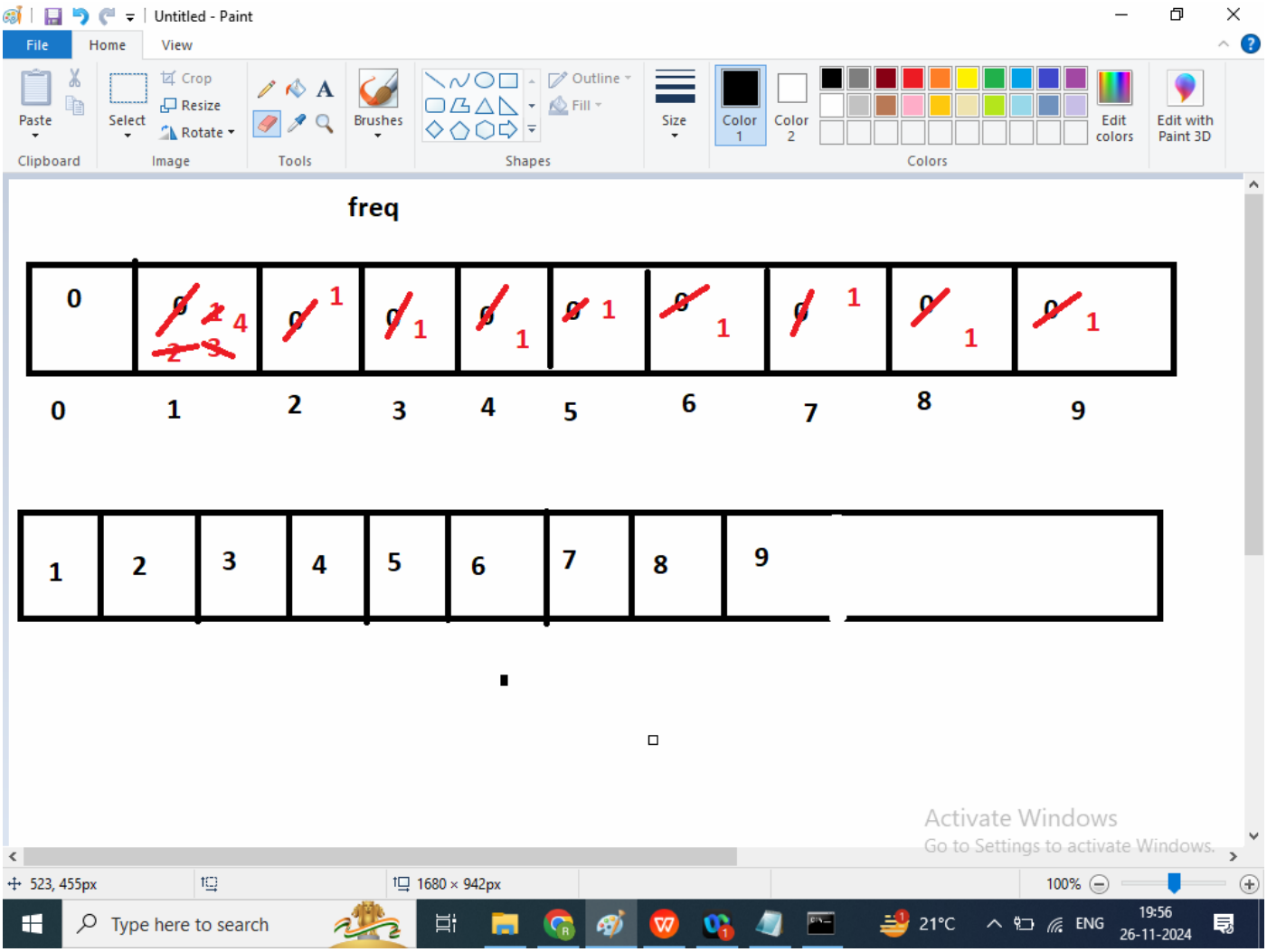
```
class A2{
        public static void main(String args[]){

        int arr[]={30,10,20,50,40,100,90,60,80,70};

        System.out.println("Before Sorting ");
        for(int i=0;i<arr.length;i++){
```

```
System.out.print("\t"+arr[i]);
}

//bubble sort logic

for(int i=0;i<arr.length;i++){//i=3
    for(int j=i+1;j<arr.length;j++){//j=3
        if(arr[i]<arr[j]){
        int temp=arr[i];
        arr[i]=arr[j];
        arr[j]=temp;

        }
    }
}


System.out.println("\nAfter Sorting ");
for(int i=0;i<arr.length;i++){
System.out.print("\t"+arr[i]);
}


}
}
```

Q2. Write a java program to find second Largest Element from the Array?

```
class A2{
	public static void main(String args[]){

	int arr[]={30,10,10,20,50,40,100,100,90,60,80,70};

	System.out.println("Before Sorting ");
	for(int i=0;i<arr.length;i++){
	System.out.print("\t"+arr[i]);
	}

	//bubble sort logic

	for(int i=0;i<arr.length;i++){//i=3
		for(int j=i+1;j<arr.length;j++){//j=3
			if(arr[i]<arr[j]){
			int temp=arr[i];
			arr[i]=arr[j];
			arr[j]=temp;

			}
		}
	}
```

```
        System.out.println("\nAfter Sorting ");
        for(int i=0;i<arr.length;i++){
        System.out.print("\t"+arr[i]);
        }

        System.out.println("Largest Element : "+arr[0]);
        System.out.println("Smallest Element :
"+arr[arr.length-1]);

System.out.println("Second Largest Element : "+arr[1]);
        System.out.println("Second Smallest Element :
"+arr[arr.length-2]);

        }
 }
```




```
class A2{
	public static void main(String args[]){

	int arr[]={3,1,1,2,5,4,1,1,9,6,8,7};

	System.out.println("Before Sorting ");
	for(int i=0;i<arr.length;i++){
	System.out.print("\t"+arr[i]);
	}

	int freq[]={0,0,0,0,0,0,0,0,0,0};
	for(int i=0;i<arr.length;i++){//i=9
	int r=arr[i];
	freq[r]++; //freq[1]++
	}

	//bubble sort logic

	for(int i=0;i<arr.length;i++){//i=3
		for(int j=i+1;j<arr.length;j++){//j=3
			if(arr[i]<arr[j]){
			int temp=arr[i];
			arr[i]=arr[j];
			arr[j]=temp;

			}
		}
	}
```

```
        System.out.println("\nAfter Sorting ");
        for(int i=0;i<arr.length;i++){
        System.out.print("\t"+arr[i]);
        }

        System.out.println("Largest Element : "+arr[0]);
        System.out.println("Smallest Element : "+arr[arr.length-1]);

System.out.println("Second Largest Element : "+arr[1]);
        System.out.println("Second Smallest Element : "+arr[arr.length-2]);

        }
 }
```
