**ASSIGNMENT 2**

class Quicksort

{

public int partition(int a[], int low, int high)

{

int pivot = a[low];

int a1 = low, a2 = high;

while(a1<a2){

while(a[a1]<=pivot && a1<high)

{

a1++;

}

while(a[a2]>=pivot && a2>low)

{

a2--;

}

if(a1<a2)

{

int temp=a[a1];

a[a1]=a[a2];

a[a2]=temp;

}}

int temp = a[low];

a[low] = a[a2];

a[a2]=temp;

return a2;

}

public void Quick\_sort(int a[], int low, int high)

{

if(low<high)

{

int j = partition(a,low,high);

Quick\_sort(a, low,j);

Quick\_sort(a, j+1,high);

}}

}

public class Main

{

public static void main(String[] args)

{

int arr[] = {90,80,70,50,40};

Quicksort qs = new Quicksort();

qs.Quick\_sort(arr, 0,4);

for(int i =0 ;i<5;i++)

{

System.out.println(arr[i]);

}

}

}

**OUTPUT:**

Enter Number of Elements

4

Enter the array elements

989

100

1

87

Sorted Array

1

87

100

989

=== Code Execution Successful ===