WEEK 5

Sort a given set of N integer elements using Quick Sort technique

CODE:

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#include<stdio.h>

void quicksort(int number[25],int first,int last)
{
    int i, j, pivot, temp;
    if(first<last)
    {
        pivot=first;
        i=first;
        j=last;
        while(i<j)
        {
            while(number[i]<=number[pivot]&&i<last)
            i++;
            while(number[j]>number[pivot])
            j--;
            if(i<j)
            {
                temp=number[i];
```

```
            number[i]=number[j];
            number[j]=temp;
        }
    }
    temp=number[pivot];
    number[pivot]=number[j];
    number[j]=temp;
    quicksort(number,first,j-1);
    quicksort(number,j+1,last);
  }
}
int main()
{
  int i, count, number[25];
  printf("enter no of elements : ");
  scanf("%d",&count);
  printf("Enter %d elements: ", count);
  for(i=0;i<count;i++)
  scanf("%d",&number[i]);
  quicksort(number,0,count-1);
  printf("Sorted elements: ");
  for(i=0;i<count;i++)
  printf(" %d",number[i]);
```

```
    return 0;
}
```

OUTPUT: