Assignment No: - 6.3
Assignment Name: - Write a program for sorting given array in Quick sort.
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//Quick Sort

```cpp
#include<iostream.h>
#include<conio.h>
#include<stdlib.h>
#include<timer.h>

void QUICK_SORT(int *arr,int low,int high)
{
        int pivot,temp,i,j;
        if(low<high)
        {
                pivot=arr[low];
                i=low+1;
                j=high;
                while(i<j)
                {
                        while(arr[i]<pivot && i<=high)
                        i++;
                        while(arr[j]>pivot && j>low)
                        j--;
                        if(i<j)
                        {
                                temp=arr[i];
                                arr[i]=arr[j];
                                arr[j]=temp;
                        }
                }
                arr[low]=arr[j];
                arr[j]=pivot;
                QUICK_SORT(arr,low,j-1);
                QUICK_SORT(arr,j+1,high);
        }
}
void main()
{
        clrscr();
        Timer T;
        int n,arr[1000];
        cout<<"\n Enter the size of array : ";
        cin>>n;
        for(int i=1;i<=n;i++)
        {
                arr[i]=random(1000);
```

```
        }
        T.start();
        QUICK_SORT(arr,1,n);
        T.stop();
        cout<<"\n After Quick Sorting Elements : ";
        for(i=1;i<=n;i++)
        {
                cout<<arr[i]<<" ";
        }
        cout<<"\n Exact time of Execution : "<<T.time();
        getch();

}
```