

Assignment-5 Roll-20BCS142

Question 1

```
#include<iostream>

using namespace std;

void Sort(int arr[],int n){
    for(int i=0;i<n-1;i++){
        for(int j=0;j<n-1-i;j++){
            if(arr[j]>arr[j+1]){
                int t=arr[j];
                arr[j]=arr[j+1];
                arr[j+1]=t;
            }
        }
    }
}

int main(){
    int n;
    cout<<"Enter the number ";
    cin>>n;
    int arr[n];
    for(int i=0;i<n;i++)
        cin>>arr[i];
```

```

Sort(arr,n);

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

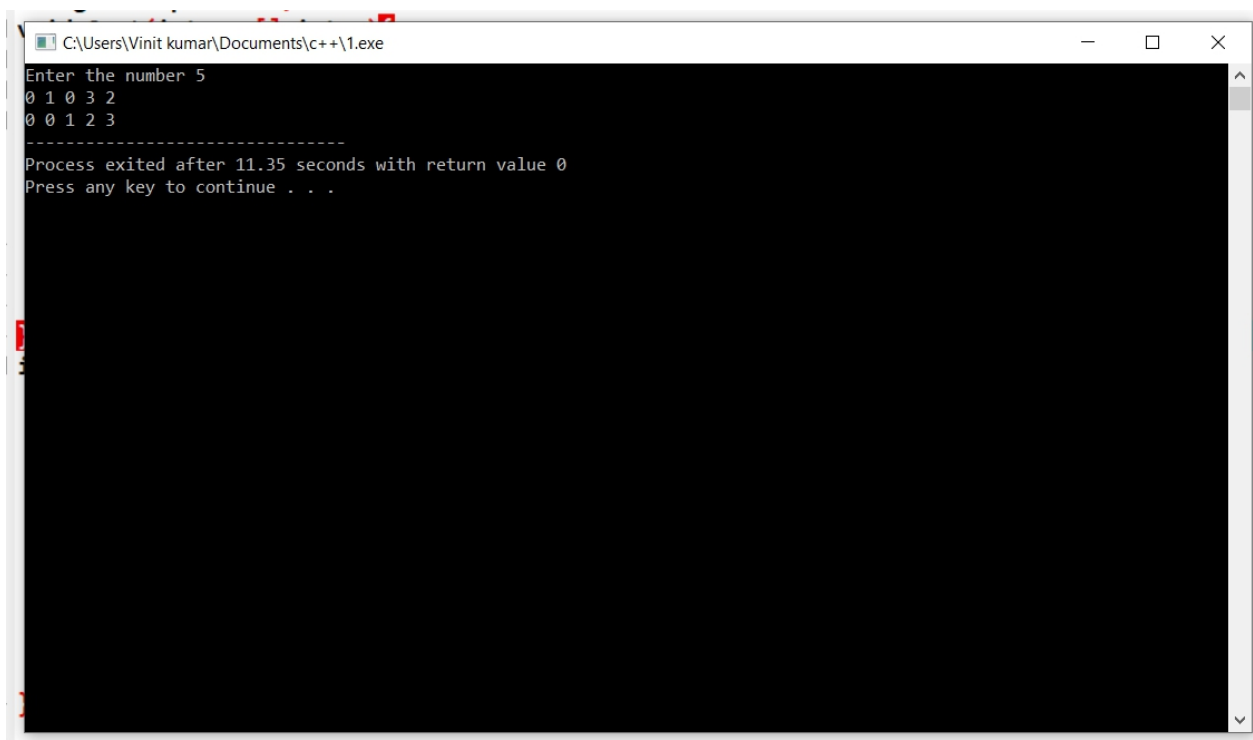
        cout<<arr[i]<<" ";

return 0;

}

```

Output of 1st



The screenshot shows a Windows command prompt window titled "C:\Users\Vinit kumar\Documents\c++\1.exe". The user has entered the number 5. The program has printed two lines of numbers: "0 1 0 3 2" and "0 0 1 2 3". Below these, a dashed line separates the output from the exit message: "Process exited after 11.35 seconds with return value 0". The prompt "Press any key to continue . . ." is visible at the bottom.

```

C:\Users\Vinit kumar\Documents\c++\1.exe
Enter the number 5
0 1 0 3 2
0 0 1 2 3
-----
Process exited after 11.35 seconds with return value 0
Press any key to continue . . .

```

Question no.2

```

#include <iostream>

using namespace std;

void Swap(string &p,string &q){

    string t=p;

    p=q;

```

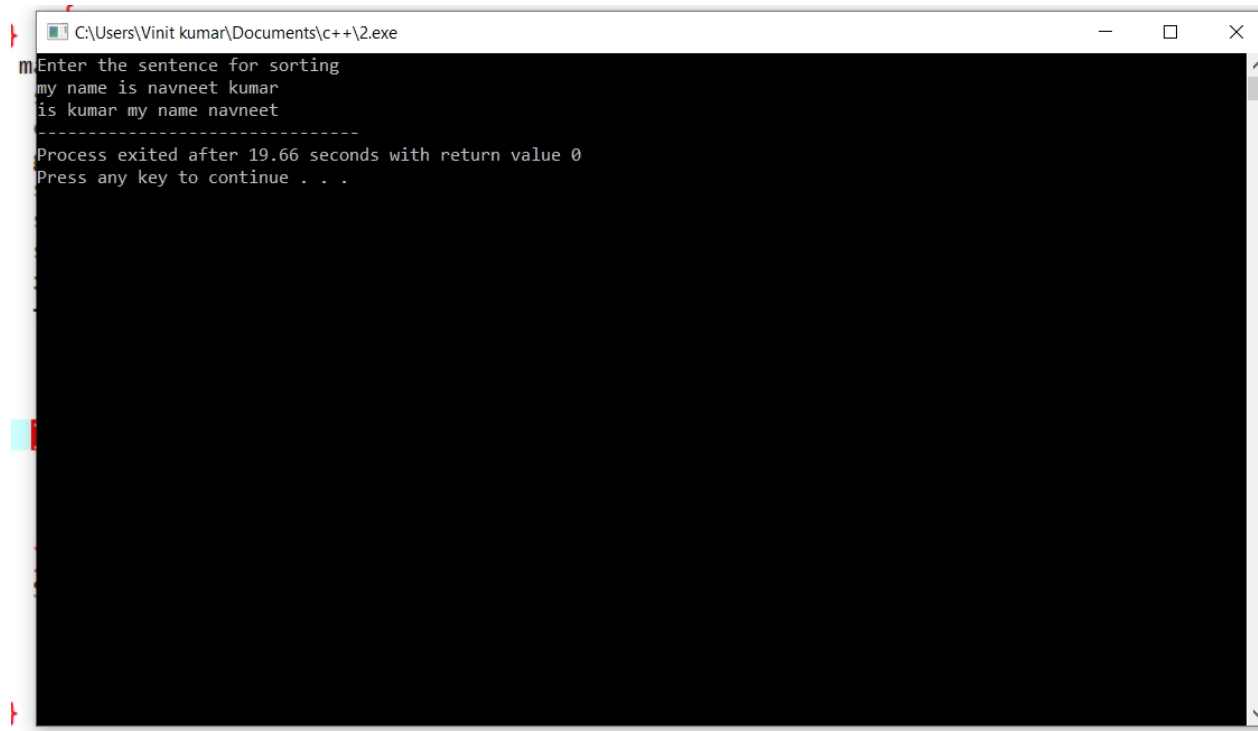
```

        q=t;
    }
void Sort(string s[],int n){
    for(int i=0;i<n-1;i++){
        for(int j=0;j<n-i-1;j++){
            if(s[j]>s[j+1])
                Swap(s[j],s[j+1]);
        }
    }
}
main(){
    string s;
    cout<<"Enter the sentence for sorting \n";
    getline(cin,s);
    s+=" ";
    string t[20];
    string p="";
    int j=0;
    for(int i=0;i<s[i]!='\0';i++){
        if(s[i]==' '){
            t[j++]=(p+" ");
            p="";
        }
    }
}

```

```
}  
  
    else{  
  
        p+=s[i];  
  
    }  
  
}  
  
Sort(t,j);  
  
for(int i=0;i<j;i++)  
  
    cout<<t[i];  
  
    return 0;  
  
}
```

Output of 2nd



A screenshot of a Windows command prompt window titled "C:\Users\Vinit kumar\Documents\c++\2.exe". The window shows the execution of a C++ program. The user is prompted to "Enter the sentence for sorting" and enters "my name is navneet kumar". The program then outputs "is kumar my name navneet" followed by a dashed line. Below the output, it says "Process exited after 19.66 seconds with return value 0" and "Press any key to continue . . .".

```
C:\Users\Vinit kumar\Documents\c++\2.exe  
Enter the sentence for sorting  
my name is navneet kumar  
is kumar my name navneet  
-----  
Process exited after 19.66 seconds with return value 0  
Press any key to continue . . .
```

Question 3

```
#include <iostream>

using namespace std;

struct points{
    int x,y;
};

void Swap(points &p,points &q){
    points t;

    t.x=p.x,t.y=p.y;

    p.x=q.x ,p.y=q.y;

    q.x=t.x ,q.y=t.y;
}

void Sort(points s[],int n){
    for(int i=0;i<n-1;i++){
        for(int j=0;j<n-i-1;j++){
            if(s[j].y>s[j+1].y)
                Swap(s[j],s[j+1]);

            if(s[j].y==s[j+1].y &&(s[j].x)>s[j+1].x)
                Swap(s[j],s[j+1]) ;
        }
    }
}
```

```
int main()
{
    int n;

    cout<<"Enter the no. of points \n";

    cin>>n;

    points p[n];

    for(int i=0.;i<n;i++){
        cin>>p[i].x>>p[i].y;
    }

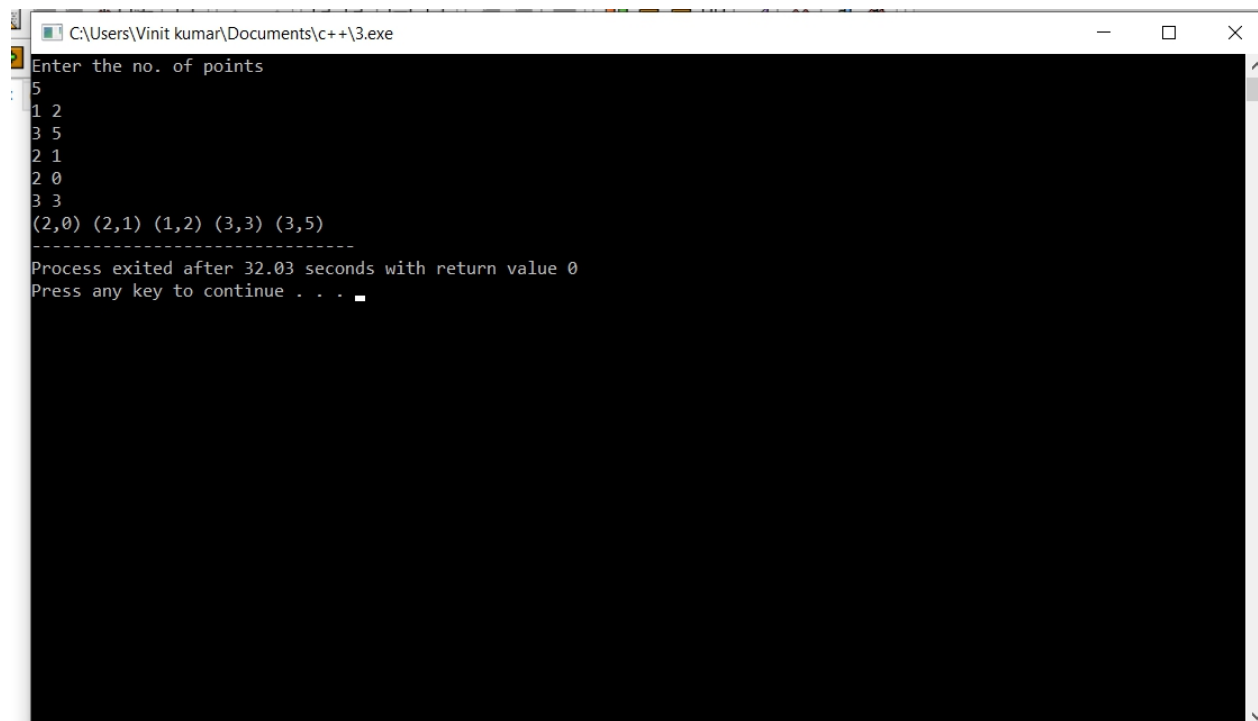
    Sort(p,n);

    for(int i=0;i<n;i++)
    {
        cout<<"("<<p[i].x<<","<<p[i].y<<")"<<" ";

    }

    return 0;
}
```

Output of 3rd



A screenshot of a Windows console window titled "C:\Users\Vinit kumar\Documents\c++\3.exe". The window has a black background with white text. The text shows the program's execution flow: a prompt to enter the number of points, followed by five input lines, and then the resulting coordinates. The window also displays a message about the process exiting and a prompt to press a key to continue.

```
C:\Users\Vinit kumar\Documents\c++\3.exe
Enter the no. of points
5
1 2
3 5
2 1
2 0
3 3
(2,0) (2,1) (1,2) (3,3) (3,5)
-----
Process exited after 32.03 seconds with return value 0
Press any key to continue . . .
```