

PRIYANSHI

2016927

E – 26

Q1.

```
#include<bits/stdc++.h>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int n;
```

```
    cin>>n;
```

```
    int i,s[n],f[n];
```

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

```
        cin>>s[i];
```

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

```
        cin>>f[i];
```

```
    vector<vector<int>> a;
```

```
    vector<int> act;
```

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

```
        a.push_back({ f[i],s[i],i+1 });
```

```
sort(a.begin(),a.end());
```

```
int e=INT_MIN,c=0;
```

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

```
{
```

```
    if(a[i][1]>=e)
```

```
    {
```

```
        e=a[i][0];
```

```
        c++;
```

```
        act.push_back(a[i][2]);
```

```
    }
```

```
}
```

```
cout<<"No. of non-conflicting activities : "<<c<<endl;
```

```
cout<<"List of selected activities : ";
```

```
for(i=0;i<act.size();i++)
```

```
cout<<act[i]<<",";
```

```
return 0;
```

```
}
```

OUTPUT

```
main.cpp
1  /*****
2  PRIYANSHI
3  2016927
4  E
5  *****/

10
1 3 0 5 3 5 8 8 2 12
4 5 6 7 9 9 11 12 14 16
No. of non-conflicting activities : 4
List of selected activities : 1,4,7,10,

...Program finished with exit code 0
Press ENTER to exit console.
```

Q2.

```
#include<bits/stdc++.h>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int n;
```

```
    cin>>n;
```

```
    int i,t[n],f[n];
```

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

```
        cin>>t[i];
```

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

```
        cin>>f[i];
```

```
    vector<vector<int>> a;
```

```
    vector<int> act;
```

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

```
a.push_back({ f[i],f[i]-t[i],i+1 } );
```

```
sort(a.begin(),a.end());
```

```
int e=INT_MIN,c=0;
```

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

```
{
```

```
    if(a[i][1]>=e)
```

```
    {
```

```
        e=a[i][0];
```

```
        c++;
```

```
        act.push_back(a[i][2]);
```

```
    }
```

```
}
```

```
sort(act.begin(),act.end());
```

```
cout<<"Max number of tasks : "<<c<<endl;
```

```
cout<<"Selected task Numbers : ";
```

```
for(i=0;i<act.size();i++)
```

```
cout<<act[i]<<",";
```

```
return 0;
```

```
}
```

OUTPUT

```
main.cpp
1- /*****
2- PRIYANSHI
3- 2016927
4- E
5- *****/
7
2 1 3 2 2 2 1
2 3 8 6 2 5 3
Max number of tasks : 4
Selected task Numbers : 1,2,3,6,
...Program finished with exit code 0
Press ENTER to exit console.
```

Q3.

```
#include<bits/stdc++.h>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int n;
```

```
    cin>>n;
```

```
    int i,a[n],c,j;
```

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

```
        cin>>a[i];
```

```
    bool f=0;
```

```
    sort(a,a+n);
```

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

```
    {
```

```
        c=1;
```

```
        j=i+1;
```

```
        while(j<n && a[j++]==a[i])
```

```
            c++;
```

```

    if(c>n/2)
    {
        cout<<"yes\n";

        f=1;

        break;
    }

    i=j-1;
}

if(f==0)

cout<<"no\n";


if(n%2!=0)

cout<<a[n/2];

else

cout<<((float)a[n/2]+a[n/2-1])/2;

return 0;
}

```

OUTPUT



The screenshot shows a C++ IDE with a file named 'main.cpp'. The code in the editor is the same as the one provided in the previous block. The output window, titled 'input', shows the following text:

```

9
4 4 2 3 2 2 3 2 2
yes
2
...Program finished with exit code 0
Press ENTER to exit console.

```