Design and Analysis of Algorithms Assignment - 7

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Roll No: 60

Batch: B-3

Conflict free Job Scheduling

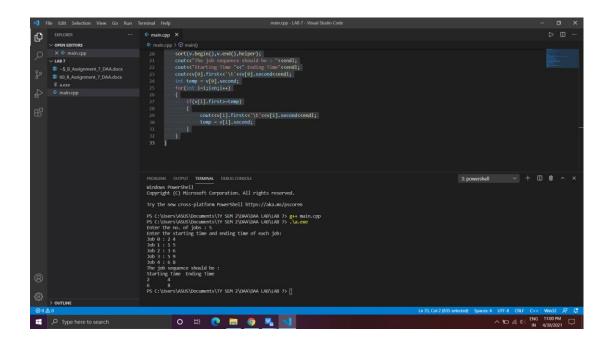
CODE:

```
#include<bits/stdc++.h>
using namespace std;

bool helper(pair<int,int> p1,pair<int,int> p2)
{
    return p1.second<p2.second;
}
int main()
{
    int n;
    cout<<"Enter the no. of jobs : ";
    cin>>n;
    vector<pair<int,int>> v(n);
    cout<<"Enter the starting time and ending time of each job: "<<endl;
    for(int i=0;i<n;i++)
    {
        cout<<"Job "<<i<" : ";
        cin>>v[i].first>>v[i].second;
    }
    sort(v.begin(),v.end(),helper);
    cout<<"The job sequence should be : "<<endl;</pre>
```

```
cout<<"Starting Time "<<" Ending Time"<<end1;
cout<<v[0].first<<'\t'<<v[0].second<<end1;
int temp = v[0].second;
for(int i=1;i<n;i++)
{
    if(v[i].first>=temp)
    {
        cout<<v[i].first<<'\t'<<v[i].second<<end1;
        temp = v[i].second;
    }
}</pre>
```

<u>O/P:</u>



Time Complexity: O(nlogn)

Space Complexity: O(1)