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**ROLL NO. – 1906137**

**SUBJECT NAME – DESIGN AND ANALYSIS OF ALGORITHMS LAB**

**SUBJECT CODE – CSL4403**

**DATE – 1ST FEB, 2021**

**BRANCH – CSE 2**

**ASSIGNMENT-6**

**Q6. WAP to implement job scheduling algorithm using greedy method.**

**Source Code in C++ Language:**

#include <bits/stdc++.h>

using namespace std;

struct Job

{

int profit;

int deadline;

};

bool cmp(Job a, Job b)

{

return (a.profit > b.profit);

}

int MaxProfit(vector<Job> J,int n)

{

sort(J.begin(),J.end(),cmp);

int profits=0;

bool slot[n];

for(int i=0;i<n;i++)slot[i]=0;

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

{

for(int j = min(n,J[i].deadline);j>0;j--)

{

if(slot[j]==false)

{

slot[j]=1;

profits+=J[i].profit;

break;

}

}

}

return profits;

}

int main()

{

int n;

cout<<"Enter the number of jobs.\n";

cin>>n;

vector<Job>j(n);

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

{

cout<<"Enter profit and deadline of the job.\n";

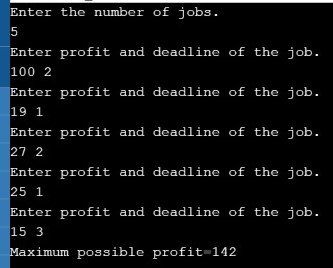
cin>>j[i].profit>>j[i].deadline;

}

cout<<"Maximum possible profit="<<MaxProfit(j,n);

return 0;}

**Output Screenshot:**

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