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Assignment No: 2

Title Name: Write a program to implement Job sequencing with deadlines using a greedy method.

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Job sequencing with deadlines using a greedy method.

Code:

```
#include<iostream>
#include<algorithm>
using namespace std;
// A structure to represent a job
struct Job {

    char id;
    int dead;
    intprofit;
};
   This function is used for sorting all the jobs according to the profit
       compare(Job a, Job b) {
 return (a.profit > b.profit);
}

void jobschedule (Job arr[], int n) {
 // Sort all jobs according to decreasing order of prfit
 sort(arr, arr+n, compare);

 int result[n]; // To store result

        slot[n];
bool
 // Initialize all slots to be free

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

      (int i=0; i<n; i++) {
 for// Find a free slot for this job (Note that we start
```

```
    // from the last possible slot)
    for (int j=min(n, arr[i].dead)-1; j>=0; j--) {
        // Free slot found
        if (slot[j]==false) {
            result[j] = i; // Add this job to result

            slot[j] = true; // Make this slot occupied

            break;

    }
}
// Print the result

for (int i=0; i<n; i++)
  if (slot[i])
cout << arr[result[i]].id << " ";

}
int main() {
 Job arr[] = { {'a', 2, 20}, {'b', 2, 15}, {'c', 1, 10},{'d', 3, 5}, {'e', 3, 1}};
 int n = 5;

 cout << "maximum profit sequence of jobs is-->";
 jobschedule(arr, n);
}
```

Output:

Output

```
/tmp/zol19eVye4.o
maximum profit sequence of jobs is-->b a d
```