90) Job Sequencing with Deadlines

CODE:

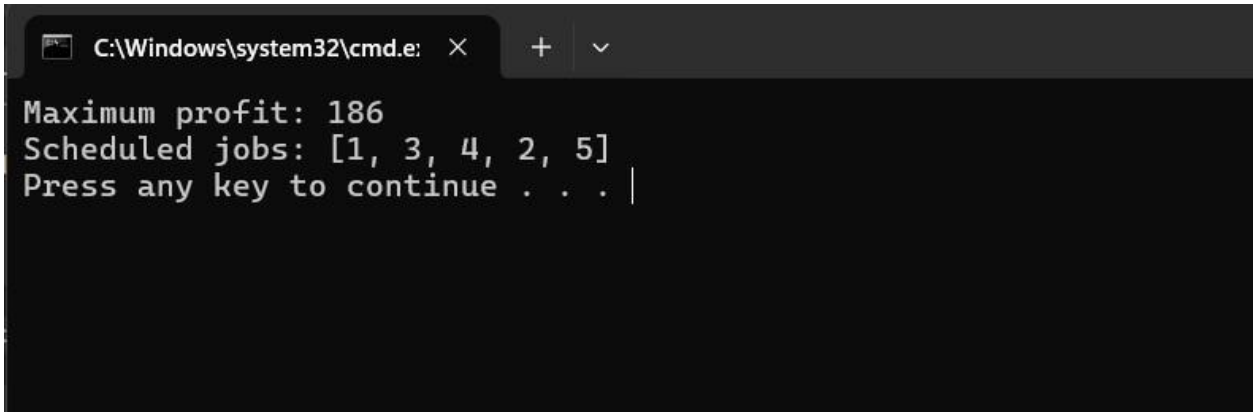
```
def job_sequencing_with_deadlines(jobs):
    jobs.sort(key=lambda x: x[2], reverse=True)
      max_deadline = max(jobs,
      key=lambda x: x[1])[1]

   time_slots = [-1] * (max_deadline + 1)

   total_profit = 0
   scheduled_jobs = []
       for job_index, deadline, profit in jobs:
       while deadline > 0 and time_slots[deadline] != -1:
   deadline -= 1
       if deadline >= 0:
            time_slots[deadline] = job_index
           total_profit += profit
scheduled_jobs.append(job_index)

   return total_profit, scheduled_jobs
 if __name__ == "__main__":
jobs = [        (1, 2, 100),
       (2, 1, 19),
       (3, 2, 27),
       (4, 1, 25),
       (5, 3, 15)
   ]
   max_profit, scheduled_jobs = job_sequencing_with_deadlines(jobs)
print(f"Maximum profit: {max_profit}")
    print(f"Scheduled jobs: {scheduled_jobs}")
```

OUTPUT:



TIME COMPLEXITY : O(nlogn)