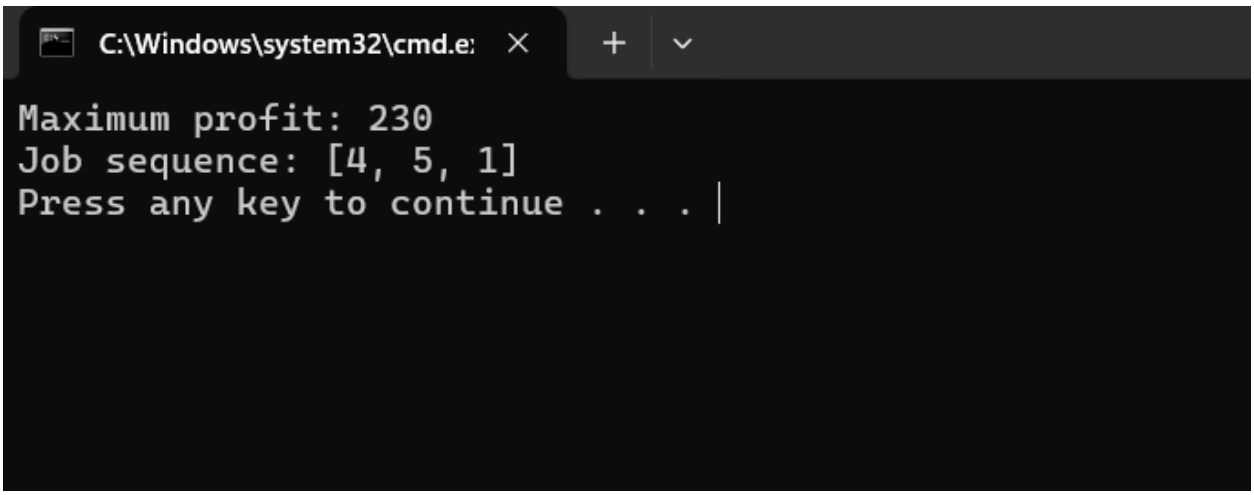
113) Job sequence with deadlines

CODE:

```
def job_sequence_with_deadlines(jobs):
    jobs.sort(key=lambda x: x[2], reverse=True)

    max_deadline = max(jobs, key=lambda x: x[1])[1]
    slot = [-1] * (max_deadline + 1)
    result = [None] * max_deadline

    total_profit = 0

    for job in jobs:
        profit = job[2]
        deadline = job[1]

        for j in range(deadline, 0, -1):
            if slot[j] == -1:
                slot[j] = job[0]
                total_profit += profit
                break

    job_sequence = [job_id for job_id in slot if job_id != -1]

    return total_profit, job_sequence

if __name__ == "__main__":
    jobs = [
        (1, 4, 70),
        (2, 1, 80),
        (3, 1, 30),
        (4, 1, 100),
        (5, 3, 60)
    ]

    max_profit, job_sequence = job_sequence_with_deadlines(jobs)
    print(f"Maximum profit: {max_profit}")
    print(f"Job sequence: {job_sequence}")
```

OUTPUT:



TIME COMPLEXITY : O(n)