**AI Assignment 3**

**Code:**

def greedy\_job\_scheduling(jobs):

jobs.sort(key = lambda x: x[1])

n = len(jobs)

schedule = []

current\_time = 0

for i, job in enumerate (jobs):

start\_time, finish\_time = job

if start\_time > current\_time:

schedule.append((i+1, start\_time, finish\_time))

current\_time = finish\_time

return schedule

def main():

jobs = []

num\_jobs = int(input("Enter the number of jobs: "))

for i in range(num\_jobs):

start\_time = int(input(f"Enter start time for job {i+1}: "))

finish\_time =int(input(f"Enter finish time for job {i+1}: "))

jobs.append((start\_time, finish\_time))

schedule = greedy\_job\_scheduling(jobs)

print("\nOptimized Schedule:")

for job in schedule:

print("Job", job[0], ":", job [1], "-", job[2])

main()

**Output:**

Enter the number of jobs: 5

Enter start time for job 1: 1

Enter finish time for job 1: 4

Enter start time for job 2: 2

Enter finish time for job 2: 5

Enter start time for job 3: 5

Enter finish time for job 3: 7

Enter start time for job 4: 6

Enter finish time for job 4: 9

Enter start time for job 5: 8

Enter finish time for job 5: 10

Optimized Schedule:

Job 1 : 1 - 4

Job 3 : 5 - 7

Job 5 : 8 - 10