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In [4]: def read_input():
             try:
                 n, d = map(int, input().strip().split())
                 teacher_data = []
                 for _ in range(n):
                     arrival_day, lectures, curse_level = map(int, input().strip().split(
                     teacher_data.append([arrival_day, lectures, curse_level])
                 return n, d, teacher_data
             except ValueError:
                 return None
         def evaluate_lecture_schedule(n, d, teacher_data):
             total_curse = 0
             lecture_schedule = []
             for day in range(1, d + 1):
                 for teacher in teacher_data:
                     if teacher[0] == day:
                         lecture_schedule.append(teacher)
                 lecture_schedule.sort(key=lambda x: x[2], reverse=True)
                 if lecture_schedule:
                     lecture_schedule[0][1] -= 1
                 lecture_schedule += [[1, 0, 0] for _ in range(len(lecture_schedule))]
                 lecture_schedule = [teacher for teacher in lecture_schedule if teacher[1
             for teacher in lecture_schedule:
                 if teacher[1] > 0:
                     total_curse += teacher[2] * teacher[1]
             print(total_curse)
         def lectures():
             input_data = read_input()
             if input_data is None:
                 print("Invalid input format")
                 return
             n, d, teacher_data = input_data
             evaluate_lecture_schedule(n, d, teacher_data)
         if __name__ == "__main__":
             lectures()
        2 3
        1 2 300
        2 2 100
        100
In [10]: import heapq
         def find_optimal_vaccine_time(n, m, portals, demon_patrols):
             min time = [float('inf')] * n
             min_time[0] = 0
             heap = [(0, 0)]
```

```
while heap:
         time, node = heapq.heappop(heap)
         for next_node, travel_time in enumerate(portals[node]):
             if travel time == -1:
                 continue
             demon_interact = 1 if time + travel_time in demon_patrols[next_node]
             new_time = time + travel_time + demon_interact
             if new_time < min_time[next_node]:</pre>
                 min_time[next_node] = new_time
                 heapq.heappush(heap, (new_time, next_node))
     if min_time[n - 1] != float('inf'):
         return min_time[n - 1]
     else:
         return -1
 if __name__ == "__main__": v
     n, m = map(int, input().split())
     portals = [[-1] * n for _ in range(n)]
     for _ in range(m):
         start, end, time = map(int, input().split())
         portals[start - 1][end - 1] = time
     demon_patrols = []
     for _ in range(n):
         patrol_info = set(map(int, input().split()))
         demon_patrols.append(patrol_info)
     result = find_optimal_vaccine_time(n, m, portals, demon_patrols)
     print(result)
4 4
1 2 3
1 3 2
2 4 2
3 4 3
```

4
 2
 3

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