**Inputs:**

INPUT #1: NUMBER OF AGENTS NEEDED PER QUARTER OF DAY

Day of week, quarter of day, agent needed per quarter

INPUT #2: AGENTS AVAILABILITY DATA

Agent ID, from what time to what time the agent is available

And

Training/Skill level (set a threshold that, if less than 25, needs assistance during shift hrs)

**Constraints:**

Minimum number of hours he requires if work= 6

maximum number of hours he can work during the day= 12

Meal break = 60 mins FIXED

For each shift, # of working agents should be greater than reqd # agents for that shift

Short break = 30 mins (if agent works only 1 shift of 6 hours, then give only 1 short break, and no meal break)

12H rest between the end of the previous day's shift and the beginning of the next day's shift.

2 minimum rest days MUST

Minimum hours the agent needs to work per week = 20 (Maximum 50)

Min shifts per week: 3, max shifts: 5

OUTPUT: CSV telling us each agent’s shift days and time, and satisfying reqd no. of agents per shift, and emp shift requirements availability

Something similar to:

|  |
| --- |
| "Agent1": { |
|  | "Monday": [6-14,15-22],  “Meal”: [14-15] |
|  | "ETC days": [24-31,39-44], |
|  | }, |
|  | "Agent2": { |
|  |  |