Question 2

To Solve we need to add new sets:

- PayRate: A Dictionary of NurseType to PayRate

- Number and Types of Nurses Require for each shift

- List of types that can work in other types.

- Existing lists of Times, Work Starting Periods

Variables:

- Start: Dictionary of (Time, Nurse Type)

Constraint:

For n in NurseType:

For t in Time:

* Sum(start[(t+i+12)%12][n] for i in Work) >= required[i][n]

New Objective Function

- Minimize sum of start for each nurse and type \* cost per type