

WEEK 11 PROJECT ASSIGNMENT

Look for the ZIP file with three data files: employees, department needs, and time-off requests. Do the following:

1. A ER diagram showing your data table design in **3NF**.
2. Load this data into your **3NF** tables structure.
3. Calculate the total needs of all departments, all days, all shifts by employee type. For example: RNs: 3214 hours, LPNs: 2735 hours, etc.
4. Calculate the total available hours per employee type. For example: RNs: 3000 hours, LPNs: 2800 hours. Note that a part-time person is limited to 24 hours per week. Also note that requested time off is not figured into this calculation.
5. List (via PHP/SQL code) which employee types are short-staffed (you don't have enough possible hours to fill the needs for that employee type).
6. Calculate the average cost per hour for each employee type, then use that number to estimate the total cost for each employee type for the entire schedule.
7. For all full time employees, calculate the total cost of giving them the day off. This assumes that they get paid time off, and that they will be paid for one, 8-hour shift.

WHAT TO HAND IN:

1. Your PHP/SQL code to load the data into your THIRD NORMAL FORM data tables.
2. Your code to calculate #2, #3, #4 and #5. These can be in one file or four separate ones.
3. A log showing the programs from #2 running.
4. A clear and distinct written answer for each of the questions. (One sentence each is fine.)