

To: Whom It May Concern

From: Kyle Salitrik

Subject: SQL Queries for Generating Schedules

Date: September 24, 2017

The following queries will return the desired information to create the schedule tables requested. An updated entity-relationship diagram is attached to the second page, where a shift times table was added in place of enumerations.

Department of Nurses View

This query will return the nurse's name, the department they are assigned to, the start and end times of their shift and the day of the week. The data will be organized first by day of the week, then by the nurse's last name and finally by their first name. The start date of the week in question must be specified.

```
1 SELECT fname, lname, dname, shift_start, shift_end, day_of_week
2 FROM week, shift, department, shift_times
3 WHERE week.startDate = start_of_week_date
4 AND shift.STID = shift_times.STID
5 AND shift.WID = week.WID
6 AND shift.EID = employee.EID
7 AND shift.DID = department.DID
8 ORDER BY day_of_week, lname, fname
```

Department Manager View

The following query will return the same columns of information for a specified week, however it will only return the information department manager assigned to that department. The data will be organized in ascending order by first department name, then the day of the week and finally the start time of the shift.

```
1 SELECT fname, lname, dname, shift_start, shift_end, day_of_week
2 FROM week, shift, department, shift_times
3 WHERE week.startDate = start_of_week_date
4 AND shift.STID = shift_times.STID
5 AND shift.WID = week.WID
6 AND shift.EID = employee.EID
7 AND shift.DID = department.DID
8 AND department.EID = employee.EID
9 ORDER BY dname, day_of_week, shift_start
```

Employee View

Finally, the employee view will return the schedule for an employee given the employee's ID and the start date of the week. The returned information will be organized by the day of the week and then start time of the shift in case multiple shifts are scheduled.

```
1 SELECT fname, lname, dname, shift_start, shift_end, day_of_week
2 FROM week, shift, department, shift_times
3 WHERE week.startDate = start_of_week_date
4 AND employee.EID = desired_employee
5 AND shift.STID = shift_times.STID
6 AND shift.WID = week.WID
7 AND shift.EID = employee.EID
8 AND shift.DID = department.DID
9 ORDER BY day_of_week, shift_start
```

Sincerely,

Kyle Salitrik

