Database Theory and Applications for Biomedical Research and Practice (BMIN 502/EPID 635)
Spring 2019
Assignment 8: Complicated queries and functions

1. Complex queries
    a. Write a SELECT query that joins two tables of your choice from the ABIC database
    b. Write a SELECT query that joins three tables of your choice from the ABIC database
    c. Write a SELECT query that joins four tables of your choice from the ABIC database

2. Subqueries
    a. Write a subquery that nests two SELECT queries with a WHERE clause

3. Functions
    a. Write a SELECT query that uses a numeric function
    b. Write a SELECT query that uses a string function
    c. Write a SELECT query that calculates age at admission for female patients in the ABIC database

4. Summary queries with aggregate functions
    a. Add height, weight, and BMI fields to your patient table for each patient (Hint: use ALTER TABLE)
    b. Add height and weight data in inches and pounds, respectively. Leave the BMI field blank
    c. Create a query that calculates the BMI for each patient and adds the value to the record. Use this formula: $(Weight*703)/Height^2$ (Hint: use the UPDATE and SET commands in a query!)
    d. Create a query that calculates the mean BMI across all patients.
    e. Create a query that calculates the mean, maximum, and minimum BMI separately for males and females.

5. Submit your .sql code and the results of your queries as one document to Assignment 8 on Canvas as: **yourlastname_BMIN502_19_8.pdf**