

CISC 3300 S25
Homework 8

1. What are sessions and cookies? What do they do?

A website can tell a browser to store data about the user and their visit in a text file called a **cookie**. Each time the browser requests another page from that domain, the browser sends the data in the cookie back to the server.

2. What is SQL? MySQL? What are relational databases?

Structured query language (SQL) is a standard language for database creation and manipulation. MySQL is a relational database program (of many) that uses SQL queries.

3. What is normalization in SQL?

Normalization avoids **data duplication** by using relationships. Normalization organizes the columns and tables of a database to ensure that database integrity constraints properly execute their dependencies.

4. What are primary and foreign keys?

A primary key is the field (or fields) that is used to uniquely identify each record in table. The three requirements is that it cannot be null, must be unique, can only be one defined per table. Foreign key is a field in in one table that reference the primary key in another table.

5. Write statements to:

- a. create a new database in phpmyadmin (or use the one from the in class assignment)
- b. create a notes table, include the following columns:

- i. id, which should be an integer type, have space for 11 characters, not be nullable, and auto increment, set the id column as the primary key
 - ii. title, which should be an varchar type, have space for 80 characters, and not be nullable
 - iii. description, which should be an text type, not be nullable
- 6. Write statements to
 - a. insert some data
 - b. update some data
 - c. delete some data
- 7. Write queries to
 - a. select all notes and order them by name in reverse alphabetical order
 - b. select the second note in the table only, assume that you don't know the ID number of it
 - c. select all notes that have descriptions which contain vowels

Include SQL statements from questions 5-7 in a sql file in your submission.