

**STAT 4260 – Databases**  
**Spring 2018**

**Assignment 1 – 80 points**

It's good practice to make SQL keywords uppercase to distinguish them from other parts of your query and try to segment by using new lines. Please do this to make it easier for the grader. Also remember to include a semicolon at the end of your query. This tells SQL where the end of your query is!

1. [16 pts] Determine the best data type to use for each example below, e.g., state abbreviation = fixed-length character, char. If a number note as unsigned if appropriate.
  - a. An article from the New Yorker Magazine
  - b. Time of a runner finishing a multiday competition
  - c. Time elapsed between births of twins
  - d. Car Make
  - e. Date and time of homework submission
  - f. Longest throw from a Quarterback in feet
  - g. Whether someone likes beer or not
  - h. UVA id number

2. [13 pts] Based on the provided **department** table below, provide the SQL code to create a SQL table called **employees** that stores employee number (primary key), employee name, department, and salary information. Have the foreign key on the **employees** table reference the **departments** table based on the **department\_id** field.

```
CREATE TABLE departments
( department_id INT,
  department_name VARCHAR(50),
  CONSTRAINT departments_pk PRIMARY KEY (department_id)
);
```

The following questions are based on the **suppliers** table shown below:

supplier_id	supplier_name	city	state
100	Microsoft	Redmond	Washington
200	Google	Mountain View	California
300	Oracle	Redwood City	California
400	Kimberly-Clark	Irving	Texas
500	Tyson Foods	Springdale	Arkansas

3. [24 pts] Provide the SQL code to create the table **suppliers** shown above.
4. [6 pts] Provide the SQL code to update the city to 'Boise' and the state to 'Idaho' for all records whose **supplier\_name** are 'Microsoft'.
5. [4 pts] Based on the **suppliers** table, provide the SQL code to delete the supplier record whose state is 'California'.

6. [5 pts] Based on the **suppliers** table, provide the SQL code to select the city and state for the supplier whose name is 'Oracle'.
7. [3 pts] Provide the SQL code to show the output of all the columns from the **suppliers** table without calling them by column name.
8. [4 pts] Based on the **suppliers** table, provide the SQL code to delete all records whose **supplier\_id** is less than 200.
9. [5 pts] Provide the SQL code to return the supplier names from the **suppliers** table in alphabetical order.