# Exercise #1 CS 364 Spring 2021

**I am taking an *active learning* approach in this class – meaning you learn ahead of time a lot more and verify your learning when attending classes. This exercise will be part of your quizzes and tests.**

# What to do

1. Using reference tools, in addition to our textbook, to find the definitions for the following terms and type the definitions here: Please include your sources and do not just cut and paste because you do not learn much that way, especially when you are cutting and pasting a large amount of words.

### Database

### Database Manage Systems (DBMS)

### SQL

### ER model

### Relational Algebra

### Data modeling

### Normalization related to database design

### RDS from Amazon

### SQL Azure

### Snowflake and Amazon’s Redshift (what are the key characteristics of these DBMSs. Note, these are examples of columnar databases)

### MongoDB and No SQL movement (This one I tested last term)

### Hadoop

### Spark

1. Using the Internet or other sources to find two dominating DBMS vendors and their latest products. Please state in what ways they are considered as “dominating” and please refer your sources.
2. If you are working for NASA (meaning money is not an issue), should you pick ORACLE 19c or MySQL 8.0 for the organization? Why?
3. If you are working for a startup company (meaning money is an issue), should you pick ORACLE 19c or MySQL 8.0 for the company? Why?
4. Using the Internet or other sources to find two dominating Cloud based DBMS vendors and their latest products. Give the URLs for these DBMSs.
5. Explain what the NoSQL movement is. Find one “DBMS” that is NoSQL.
6. What are two alternatives of MySQL beside SQL Server and ORACLE?

# When and what to turn in

Save your answer in a PDF file and submit to the folder in Moodle before the end of the day on **4/11/2021**.