

## Prompts

1. Research different constructs that are available in MySQL when retrieving data.
  - (a) How is data retrieved from a MySQL database?
  - (b) What clauses exist for restricting the data that is returned to the user?
  - (c) Include the syntax for this type of request, and give an example.
2. What types of operations can you do in SQL (or specifically MySQL)? List at least **five (5)** different statements that exist in MySQL? Give a brief description of what these do.
3. What are wildcards in MySQL? How are they useful? Give an example of a MySQL statement that could use wildcards.
4. Define JDBC. What is JDBC? Describe it in your own words. How is it used?
5. List 3-5 interesting facts that you have learned about MySQL from your research?

## Purpose

- This Research Assignment is meant to go beyond the course curriculum and increase your understanding of relevant topics while exposing you to online resources you'll frequently use on the job.
- As developers, **research** is a constant part of our job.
- A common saying is that 90% of software development is "Googling". While that is an exaggeration, search engines are highly utilized tools in the software development role.
- The **Java Documentation** is a great place to start, and there are so many other great resources!

## Instructions

- Choose at least **two (2)** of the above prompts.
- Research those prompts.
- Write at least one paragraph for **two (2)** of the above prompts
- Include URLs from where you found the information to cite your sources.
- Create a PDF, and Submit that to the LMS.

**Do NOT copy and paste text from the internet or any other source!**

- **Use** the information you find in your research as a starting point
- **Summarize the concepts, in your own words.**
- Plagiarism will result in a zero for the assignment as well as disciplinary actions.

**This assignment is graded based on participation.**

1. When retrieving information from a table in MySQL, you have several options.
  - a. Retrieve everything is: `SELECT * FROM TABLE`; this brings every single and row value from that table.
  - b. Retrieving certain column is `SELECT col1, col2, col4, col6 FROM TABLE`; this brings all row values from the selected columns in the `SELECT` clause.
  - c. Retrieving certain rows is `SELECT * FROM TABLE WHERE col1 >= 100`; Here you are retrieving all columns from a table and limiting where col1 has values greater and equal to 100. You are limiting by row values and will not see any row value less than 100.
  - d. Retrieving a limit is: `SELECT * FROM table LIMIT 3`; is seeing the top three rows of data for this particular table.
  - e. <https://dev.mysql.com/doc/refman/8.0/en/retrieving-data.html>
2. Wildcards are helpful when you are trying to narrow down or drill down on data when you may not be sure what you are looking for. For example, if you needed information for April but you forgot how to spell April you can write a statement such as this `SELECT * FROM table WHERE col1 LIKE "A%L"`; This should bring back April data. These placeholders help when you are unsure of spelling someone last name or querying every transaction in starting with the character A.  
<https://www.tutorialspoint.com/sql/sql-wildcards.htm#:~:text=SQL%20Wildcards%20are%20special%20temporary,compare%20multiple%20various%20strings%20etc.>