

Prompts

1. Describe each of the **ten (10)** MySQL data types.
 - (a) How is each data type used?
 - (b) What makes each unique?
2. Research primary & foreign keys in RDBMSs? What are they? Why are they useful?
3. Define DDL and DML. What do the acronyms mean? Describe each one. Give examples.
4. What are INDEXes in MySQL? Why are they important? What benefit do they provide?
5. What is a VIEW in an RDBMS. What is a view? Why is it useful?
6. What is a JOIN when talking about databases?

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.

3. DDL, stands for data definition language, and DML, this represents data manipulation language. In general, DDL sql statements are used to create or modify tables. For example, a DDL statement can be a CREATE TABLE sql statement. Alternatively, DML statement are best thought of as statements that work on the tables. With DML statement you can add and update data on the table you have created.

[https://web.csulb.edu/colleges/coe/cecs/dbdesign/dbdesign.php?page=sql/ddldml.php#:~:text=SQL%20statements%20are%20divided%20into,data%20manipulation%20language%20\(DML\).](https://web.csulb.edu/colleges/coe/cecs/dbdesign/dbdesign.php?page=sql/ddldml.php#:~:text=SQL%20statements%20are%20divided%20into,data%20manipulation%20language%20(DML).)

4. According to the mysql documentation, indexes are used to find rows quickly when a table is being queried. I think of indexes are premade partitions or parameters on the table that you have created for a quicker search time. I think of indexes also be made of buckets that you make using a column. If there are no indexes, the search will be by row, one at a time and in a sequential fashion. If you have 8 million records in one table, this may be time consuming and therefore not efficient. Depending on the database and its function, this may not be acceptable.

<https://dev.mysql.com/doc/refman/8.0/en/mysql-indexes.html#:~:text=Indexes%20are%20used%20to%20find,to%20find%20the%20relevant%20rows.>