

Week 07: Research

Prompts

1. What is a database? What is a schema? Compare and contrast?

A database, to me in my own words, is a place where large amounts of data can be concentrated in one place. It has a structure depending of the type of database that is being used. For an example, a relational database is a database that can store transactional data. While object-oriented database have or contain data in objects. A schema is how the data is organized. Referencing the relational database example that I gave earlier, a schema in this case can be considered a sample of data that may contain certain rules, certain permissions (who can see the data), or certain data. A schema can be called HR, and contain all data that is pertinent to that subject and all the transactional information from HR into that schema.

<https://www.oracle.com/database/what-is-database/>

2. What is a DBMS? What is an RDBMS? Compare and contrast.

3. What is SQL? How is it used?

4. Our course uses MySQL. What is the difference between MySQL and SQL?

5. Describe MySQL? What type of database management system is it? What company owns it? What makes it unique?

6. How is data organized in an RDBMS? What are the constructs that allow users to easily organize and access data?

7. What are ten different data types MySQL provides?

<https://blog.devart.com/mysql-data-types.html>

<https://dev.mysql.com/doc/refman/8.0/en/data-types.html>

According to the MySQL documentation, there are these data types: Numeric, Date and Time, String, Spatial, The JSON, and Data Type Default Values. Within each of these larger categories they can have several data types. To name a few, Numeric Data Type, can have FLOAT, REAL, DOUBLE PRECISION, INT, SMALLINT, DECIMAL and NUMBER. Then, for Date and time, you may use, DATE, TIME, DATETIME, TIMESTAMP and YEAR. Following that is the String data type, and you can use CHAR, VARCHAR, BINARY, TEXT, ENUM and BLOB. Spatial data types can also be used in MYSQL, POLYGON, GEOMETRY, POINT

and LINESTRING. There are also JSON data types which include, LONGBLOB, LONGTEXT or JSON_MERGE_PATCH().

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.