

Week 7 Research

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Prompts

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

- A database is a collection of data or information. A schema is the organizational representation of the database. So a schema describes how the database is organized, into what tables and their respective columns. A database can have information added, deleted or updated once it has been created, however, a schema shouldn't be changed because it can disrupt the database itself and cause problems for the users of the database. Databases use memory to store data, where schemas do not use any memory to store data.

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

- A DBMS is a database management system. DBMS is a software management system that lets us organize and manage databases. They allow us to create and modify a database as well as query it and provides for security, letting us control who can access and modify the database. A RDBMS is a relational database management system, it is a type of DBMS. In an RDBMS data is organized into tables and those tables have columns and rows, interrelated tables are connected using primary and foreign keys. DBMS can also be in the form of NoSQL or non-relational database management systems. This type of database management system uses key:value pairs, documents, column or graphs to organize their data.

3. What is SQL? How is it used?

- SQL is a standard database language. It stands for structured query language and it's how we access and manipulate data inside of databases. It allows us to create, read, update and delete data from our database.

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

- SQL is a language used to create and manipulate databases. MySQL is a RDBMS that uses SQL to access data in databases. So SQL is a language and MySQL is software that we use to manage databases.

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

- MySQL is a relational database management system. It is open source software so it is free to all to use. It is owned by Oracle Corporation.

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

- In an RDBMS data is organized into tables with those columns being organized into rows. Table data can have primary keys and also foreign keys that link them to other tables, allowing us to join tables using the keys.

7. What are ten different data types MySQL provides?

https://www.w3schools.com/mysql/mysql_datatypes.asp

Sources:

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<https://www.geeksforgeeks.org/introduction-of-dbms-database-management-system-set-1/>

<https://www.geeksforgeeks.org/sql-tutorial/#mysql>

<https://www.javatpoint.com/mysql-vs-sql>

<https://www.simplilearn.com/tutorials/sql-tutorial/difference-between-sql-and-mysql#:~:text=What%20is%20the%20major%20difference,SQL%20is%20a%20database%20language.>