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Week 8 BE Research

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?

- A primary key is a column that gives us a way to uniquely identify each row in a table. You can only have one primary key per table. Primary keys cannot have NULL as their value. A primary key on one table can be a foreign key on another table. This foreign key refers back to the primary key on the original table and provides a link between the two tables. Tables can have more than one foreign key. So primary keys are used to uniquely identify data in a table and foreign keys are used to maintain relationships between tables.

3. Define DDL and DML. What do the acronyms mean? Describe each one. Give examples.

- DDL is data definition language. It is used to define database structures. CREATE is an example of a DDL. DML is data manipulation language and it is used to modify and manipulate data. Examples include INSERT, UPDATE and DELETE.

4. What are INDEXes in MySQL? Why are they important? What benefit do they provide?

- An index is a data structure that allows faster searching in a database. They allow SELECT statements to be faster, but they make INSERT and UPDATE statements slower, because when those operations are done the indexes of all items in that table have to be updated.

5. What is a VIEW in an RDBMS. What is a view? Why is it useful?

- A view is like a virtual table. You can define which rows you want to be in your view and views can include data from one or multiple tables. Views can be useful because they let you compare a small subset of the data in one or multiple tables.

6. What is a JOIN when talking about databases?

- A JOIN clause is used when you want to compare or combine data from more than one table in your database. You connect tables to one another using their primary/foreign keys, this is the JOIN predicate and you have to specify that in your JOIN clause in order for the tables to be joined together.

Sources:

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