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Databases

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Designing an API

Definition of an API: a set of subroutine definitions, protocols and tools for building an application software.

Methods

Create

The create method is equivalent to the Insert method in SQL. The purpose of this method is to be able to create new databases, tables, or tuples for that table. For this particular assignment, the database would already be created and the application would need to have the ability to create new tables and then populate those tables with new tuples. The tables would have the components of name, schema and column parts. The tuples themselves would have the components of name, data types, primary key and defaults.

Read

Read is the same as the Select method in SQL. The application would need to have the ability to allow the user to write select statements for the different tables they create, as well as, the different tuples in those tables. Since SQL can cross reference multiple tables at once, the program would need to have that ability as well. The components of this method would be table name, so that the program knows which table is being used and, tuple names, so that the application knows what data to display. After the information has been selected, the application would need to have some method to display what was called back.

Update

In both SQL and here, the method for Update is called the same thing. Update is used to either, add new information to existing tables and tuples or, to enter new information and update the database. This method would need to have the components of table and tuple so that the application knows where it is adding the information to, or changing the information from.

Delete

Just like the Update method, the Delete method has the same name as it does in SQL. The purpose of this method is to have the ability to delete tables from the database or delete tuples from the various tables. The components needed to complete this command would be table name and/or tuple name.