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| | **SQL Command** | **Your Custom Command** | **Purpose** | | --- | --- | --- | | **INSERT INTO** | **PUT <key> <value>** | Insert or update a key-value pair in the database. | | **SELECT** | **GET <key>** | Retrieve the value associated with a given key. | | **UPDATE** | **PUT <key> <value>** | Replace an existing key-value pair with a new one (similar to INSERT INTO but for existing keys). | | **DELETE** | **REMOVE <key>** | Delete a key-value pair from the database. | | **SELECT \*** | **SHOW** | Show all key-value pairs in the database. | | **DROP TABLE** | **FLUSH** | Clear the database by deleting all key-value pairs. | | **EXIT** | **EXIT** | Exit the custom database shell. | | **CREATE TABLE** | **CREATE DATABASE <name>** | Create a new database (or collection of data) with the given name. | | **ALTER TABLE** | **ALTER DATABASE <name>** | Modify an existing database (e.g., adding new data structures, new key-value pairs). | | **JOIN** | **JOIN <key1>, <key2>** | Combine data from multiple sources (tables) based on related keys. | | **GROUP BY** | **GROUP BY <key>** | Group data based on a specified key, useful for aggregation. | | **ORDER BY** | **ORDER <key/values>** | Sort results based on keys or values, either in ascending or descending order. | | **LIKE** | **MATCH <pattern>** | Perform pattern matching for keys or values to find approximate matches (similar to SQL's LIKE operator). | | **LIMIT** | **LIMIT <number>** | Limit the number of rows returned by the query. | | **DISTINCT** | **DISTINCT** | Return only unique or distinct key-value pairs (no duplicates). | | **CREATE INDEX** | **CREATE INDEX <key>** | Create an index on a specific key to improve query performance (e.g., for faster searches). | |

**Explanation of Added Commands:**

* **CREATE DATABASE <name>**: A new database or collection of data is created, which you can associate with a certain name.
* **ALTER DATABASE <name>**: This command allows you to modify the structure of an existing database, adding or removing key-value pairs or changing the data format.
* **JOIN**: Combines data from multiple datasets based on a related key. This could be useful if your database stores multiple related tables or key-value pairs across different collections.
* **GROUP BY <key>**: Grouping data by a specific key helps aggregate related information. For instance, if you have key-value pairs storing product sales, you might group by product ID to aggregate total sales for each product.
* **ORDER**: Sorts data in a specific order (ascending or descending) based on the key or value, similar to SQL’s ORDER BY.
* **MATCH**: This would allow you to search for patterns or substrings within keys or values, like LIKE in SQL (e.g., GET MATCH '%abc%').
* **LIMIT**: Limits the number of results returned from a query. This would be useful when you need to limit output in case of large datasets.
* **DISTINCT**: Removes duplicate entries from results, ensuring unique values are retrieved.
* **CREATE INDEX**: You can create an index on certain keys to speed up lookups for those keys.