3. Inserting and Retrieving Data, SELECT INSERT UPDATE DELETE

Insert Data:

- INSERT INTO: Adds new rows of data into a table.

INSERT INTO table_name (column1, column2, ...)

VALUES (value1, value2, ...);

Retrieve Data:

- SELECT: Retrieves data from one or more tables.

SELECT column1, column2, ...

FROM table_name

WHERE condition;

SELECT * (Wildcard): Retrieves all columns from a table.

SELECT *

FROM table_name;

LIMIT: Limits the number of rows returned.

SELECT column1, column2, ...

FROM table_name

LIMIT 10;

ORDER BY: Sorts the result set.

SELECT column1, column2, ...

FROM table_name

ORDER BY column1 ASC; -- or DESC for descending order

GROUP BY: Groups rows by a specified column.

SELECT column1, COUNT(*)

FROM table_name

GROUP BY column1;

Update Data:

- UPDATE: Modifies existing data in a table.

UPDATE table_name

SET column1 = value1, column2 = value2

WHERE condition;

Delete Data:

- DELETE: Removes rows from a table.

DELETE FROM table_name

WHERE condition;

Insert Data Example:

INSERT INTO employees (employee_id, first_name, last_name)

VALUES (101, 'John', 'Doe');

Retrieve Data Example:

SELECT first_name, last_name

FROM employees

WHERE department = 'HR';

Update Data Example:

```
UPDATE employees

SET salary = 60000

WHERE employee_id = 101;
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Delete Data Example:

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DELETE FROM employees

WHERE employee_id = 102;
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