Here’s an example of creating a table in PostgreSQL, followed by sample DDL operations that include creating the table, altering it, and dropping it.

**Example Table: employees**

1. **Creating the Table**

sql

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CREATE TABLE employees (

employee\_id SERIAL PRIMARY KEY,

first\_name VARCHAR(50) NOT NULL,

last\_name VARCHAR(50) NOT NULL,

email VARCHAR(100) UNIQUE NOT NULL,

hire\_date DATE NOT NULL,

job\_title VARCHAR(50),

salary NUMERIC(10, 2),

department\_id INT,

is\_full\_time BOOLEAN DEFAULT TRUE

);

**Sample DDL Operations**

1. **Inserting Data into the Table**

sql

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INSERT INTO employees (first\_name, last\_name, email, hire\_date, job\_title, salary, department\_id, is\_full\_time) VALUES

('John', 'Doe', 'john.doe@example.com', '2024-01-15', 'Software Engineer', 75000.00, 1, TRUE),

('Jane', 'Smith', 'jane.smith@example.com', '2024-02-20', 'Project Manager', 90000.00, 2, TRUE),

('Alice', 'Johnson', 'alice.johnson@example.com', '2024-03-25', 'Data Analyst', 65000.00, 1, TRUE),

('Bob', 'Brown', 'bob.brown@example.com', '2024-04-30', 'Intern', 30000.00, 3, FALSE);

1. **Altering the Table**
   * **Adding a New Column**

sql

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ALTER TABLE employees ADD COLUMN phone\_number VARCHAR(15);

* **Modifying an Existing Column**

sql

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ALTER TABLE employees ALTER COLUMN salary TYPE NUMERIC(12, 2);

* **Dropping a Column**

sql

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ALTER TABLE employees DROP COLUMN phone\_number;

1. **Querying the Table**

sql

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SELECT \* FROM employees;

1. **Updating Data in the Table**

sql

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UPDATE employees

SET salary = salary \* 1.10

WHERE is\_full\_time = TRUE;

1. **Deleting Data from the Table**

sql

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DELETE FROM employees

WHERE employee\_id = 4; -- Deletes Bob Brown

1. **Dropping the Table**

sql

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DROP TABLE employees;

**Summary of DDL Operations**

* **Create Table**: Defines the structure of the table.
* **Insert**: Adds new rows to the table.
* **Alter Table**: Changes the structure of the table (adding, modifying, or dropping columns).
* **Select**: Retrieves data from the table.
* **Update**: Modifies existing data in the table.
* **Delete**: Removes rows from the table.
* **Drop Table**: Deletes the entire table and all its data.

This example gives a complete overview of basic DDL operations that can be performed on a PostgreSQL table!

**Syntax**

The syntax for defining a NUMERIC type is:

sql

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NUMERIC(precision, scale)

* **Precision**: The total number of significant digits that can be stored (both to the left and right of the decimal point).
* **Scale**: The number of digits that can be stored to the right of the decimal point.

**Example**

* **NUMERIC(10, 2)**: This means that the number can have up to 10 significant digits in total, with 2 of those digits after the decimal point. For instance, valid values could be 12345678.90, 1234567890 (which is too large), or 12345.67 (which is valid).