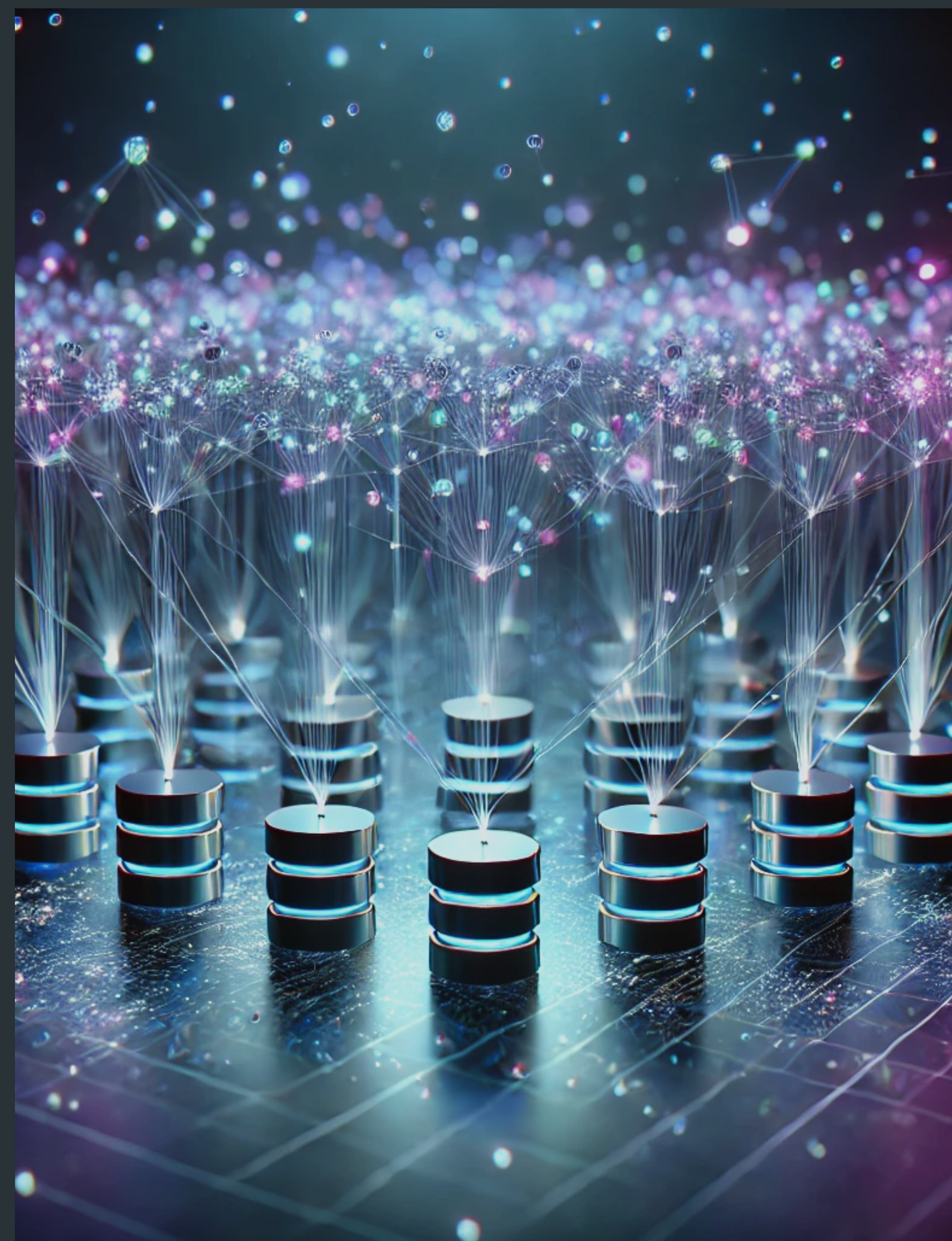


kokchun giang

crud operations
are the foundation
for managing data
in a database



read_csv_auto
with create table

INSERT statement

Create

adds new data, define new
database objects

SELECT statement

Read

data retrieval,
non-modifying

UPDATE statement

Update

modifying existing
data in a table

DELETE statement

Delete

removing one or more
rows from a table

using **CREATE clause**, DDL to create database objects

```
CREATE SCHEMA IF NOT EXISTS database;
```

↑
makes statement
idempotent

```
CREATE TABLE IF NOT EXISTS database.sql (  
  id INTEGER DEFAULT nextval('id_sql_sequence'),  
  word STRING,  
  description STRING);
```


↑ schema.table

↑
sequence for auto
incrementing id
column

using **INSERT statement** for creating data


```
INSERT
  INTO
  database.sql
  (word,
  description)
VALUES
  ('CRUD', 'create, read, update, delete – basic actions to be performed on data'),
  ('range condition', 'filter data within a specific range of values');
```

columns to insert
data, id increments
automatically



using **ALTER statement** to change an existing table

```
ALTER TABLE database.duckdb  
ADD COLUMN learnt BOOLEAN DEFAULT FALSE;
```



adds a new column named
learnt with default value FALSE

using **DELETE statement** to delete rows

(1) **SELECT * FROM** programming.python **WHERE** id = 2;

(2) **DELETE**
FROM
 programming.python
WHERE
 id = 2;

good practice to select the
row(s) beforehand to make sure
you delete correct rows