**Codetech IT solutions task-3**

**-> Objective:**

Migrate data from a **MySQL database** to a **PostgreSQL database** and ensure **data integrity**.

**-> Method: Manual Export & Import Using SQL Dump Files**

**-> Tools Required:**

1. **MySQL Workbench** or **Command Line**
2. **pgAdmin** or **psql (PostgreSQL CLI)**
3. **VS Code** (optional, for writing SQL scripts)

**-> STEP-BY-STEP PROCEDURE**

**-> Step 1: Export MySQL Database to SQL File**

**Command prompt:**

mysqldump -u root -p mysql\_python > mysql\_dump.sql

This creates a file mysql\_dump.sql with schema and data.

**-> Step 2: Modify SQL File to Be PostgreSQL Compatible**

MySQL and PostgreSQL have different syntax, so you need to:

1. Open mysql\_dump.sql in **VS Code** or **Notepad++**
2. Manually fix incompatibilities:
   * Replace AUTO\_INCREMENT with SERIAL
   * Replace backticks ` with double quotes " " (or remove them)
   * Convert ENGINE=InnoDB lines (just delete them)
   * Remove MySQL-specific commands (like LOCK TABLES, UNLOCK TABLES, etc.)

**-> Step 3: Create the Database in PostgreSQL**

1. Open **pgAdmin** or use terminal:

Command prompt

createdb your\_new\_database

**-> Step 4: Import SQL File into PostgreSQL**

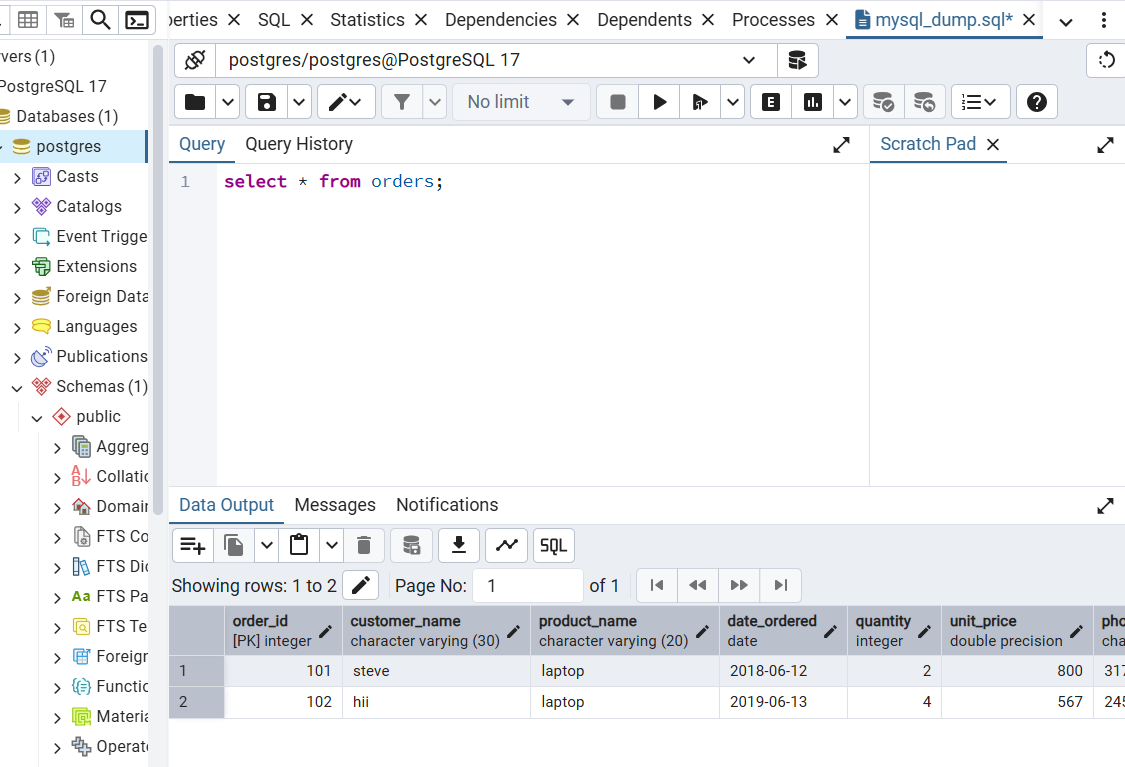
**Command prompt:**

psql -U postgres -d postgres -f modified\_mysql\_dump.sql

**-> Step 5: Verify the Migration**

* Run queries like SELECT \* FROM orders; to check data.
* Confirm:
  + Tables exist
  + Data is fully copied
  + Relationships are intact

**-> Output:**

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