**🔹 Step 1: Extract**

id,name,department,salary

1,Alice,IT,60000

2,Bob,HR,50000

3,Charlie,Finance,70000

4,David,IT,55000

5,Eva,Finance,72000

**🔹 Step 2 & 3: ETL with SQLite**

import pandas as pd

import sqlite3

# ====== Extract ======

df = pd.read\_csv("employee.csv")

print("Original Data:")

print(df)

# ====== Transform ======

# Increase salary of IT employees by 10%

df.loc[df['department'] == 'IT', 'salary'] \*= 1.10

# Standardize names to uppercase

df['name'] = df['name'].str.upper()

# Add bonus = 5% of salary

df['bonus'] = df['salary'] \* 0.05

print("\nTransformed Data:")

print(df)

# ====== Load into SQLite ======

# Connect to SQLite (creates employees.db file if not exists)

conn = sqlite3.connect("employees.db")

# Write DataFrame to SQL table

df.to\_sql("employees", conn, if\_exists="replace", index=False)

print("\nData has been loaded into employees.db (table: employees)")

# Verify by reading back from database

result = pd.read\_sql("SELECT \* FROM employees", conn)

print("\nData from DB:")

print(result)

conn.close()

**🔹 Step 4: Database Output**

Now in SQLite (employees.db) you’ll have a table employees:

| **id** | **name** | **department** | **salary** | **bonus** |
| --- | --- | --- | --- | --- |
| 1 | ALICE | IT | 66000.0 | 3300.0 |
| 2 | BOB | HR | 50000.0 | 2500.0 |
| 3 | CHARLIE | FINANCE | 70000.0 | 3500.0 |
| 4 | DAVID | IT | 60500.0 | 3025.0 |
| 5 | EVA | FINANCE | 72000.0 | 3600.0 |

⚡ This is a **complete ETL pipeline**:

* **Extract** → CSV (employees.csv)
* **Transform** → Apply business rules
* **Load** → SQLite database (employees.db)