

**CODTECH Internship**

## **TASK 3**

# **Database Migration From MySQL To PostgreSQL**

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## OBJECTIVE:

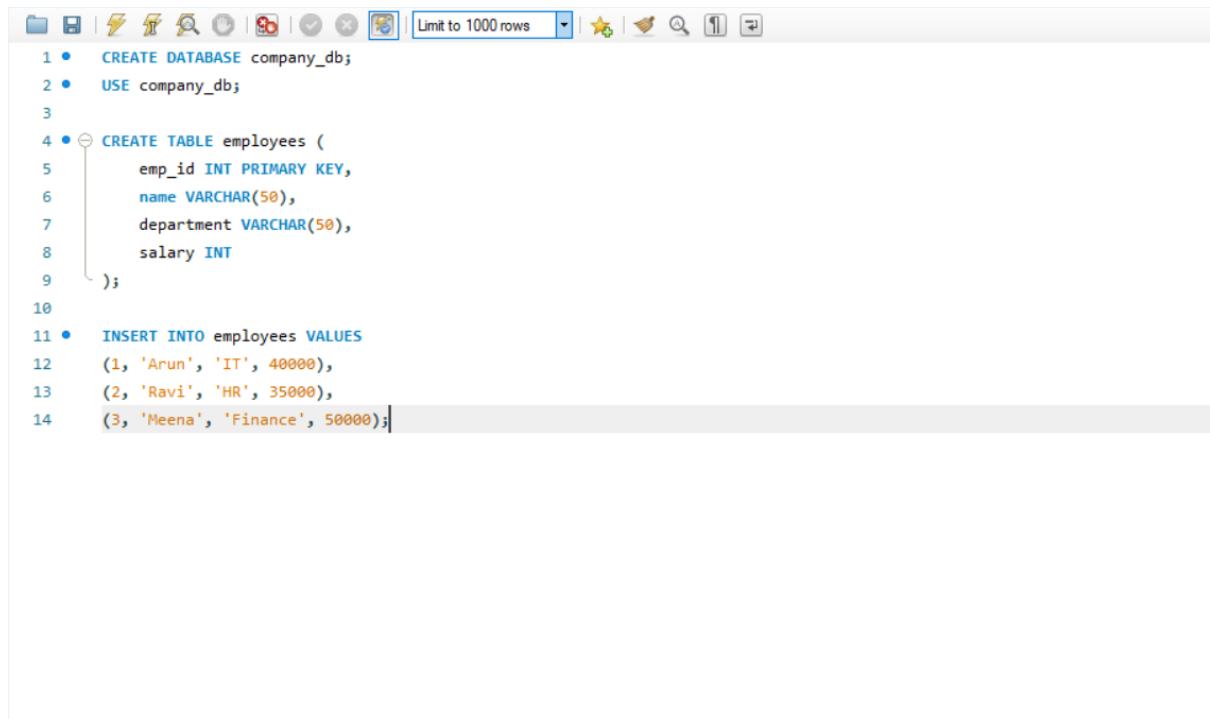
To Migration data from MYSQL to PostgreSQL While Ensure Data Integrity

## TOOL USED:

- . MYSQL Workbench
- . PostgreSQL
- . Pgloader

## Migration Process:

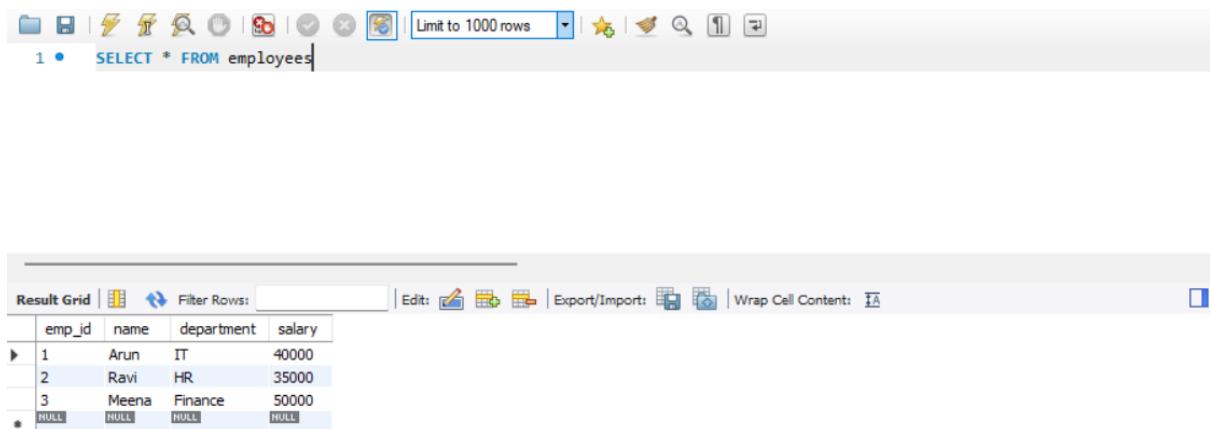
### 1.Create database and tables and insert values in MYSQL:



The screenshot shows the MySQL Workbench interface with the following SQL code:

```
1 • CREATE DATABASE company_db;
2 • USE company_db;
3
4 • CREATE TABLE employees (
5     emp_id INT PRIMARY KEY,
6     name VARCHAR(50),
7     department VARCHAR(50),
8     salary INT
9 );
10
11 • INSERT INTO employees VALUES
12     (1, 'Arun', 'IT', 40000),
13     (2, 'Ravi', 'HR', 35000),
14     (3, 'Meena', 'Finance', 50000);
```

## 2. Selecting sample data:



The screenshot shows the MySQL Workbench interface. At the top, there is a toolbar with various icons. Below the toolbar, a query editor window is open with the SQL command: `SELECT * FROM employees`. The results are displayed in a "Result Grid" table below. The table has four columns: emp\_id, name, department, and salary. It contains four rows of data:

	emp_id	name	department	salary
▶	1	Arun	IT	40000
▶	2	Ravi	HR	35000
▶	3	Meena	Finance	50000
*	HULL	HULL	HULL	HULL

## 3. Created target PostgreSQL database:

Query History

```
1 CREATE TABLE employees (
2     emp_id INT PRIMARY KEY,
3     name VARCHAR(100),
4     department VARCHAR(50),
5     salary INT
6 );
7
8 INSERT INTO employees VALUES
9 (1, 'Arun', 'HR', 30000),
10 (2, 'Bala', 'IT', 50000),
11 (3, 'Chitra', 'Finance', 45000);
```

Data Output Messages Notifications

```
INSERT 0 3

Query returned successfully in 105 msec.
```

Total rows: | Query complete 00:00:00.105 |

#### 4.Used pgloader for migration:

 Local instance MySQL80

## Data Export

Object Selection Export Progress

Export Completed

Status:  
1 of 1 exported.

Log:

```
12:38:07 Dumping company_db (all tables)
Running: mysqldump.exe --defaults-file="C:\Users\G.S.A\AppData\Local\Temp\tmpdaiww3zg.cnf" --host=localhost --port=3306 --default-character-set=utf8 --user=root
--protocol=tcp --skip-triggers "company_db"
12:38:08 Export of C:\Users\G.S.A\Documents\sql\dumps\Dump20260119.sql has finished
```

Stop Export Again

Query    Query History

```
1  SELECT * FROM employees;
```

Data Output    Messages    Notifications

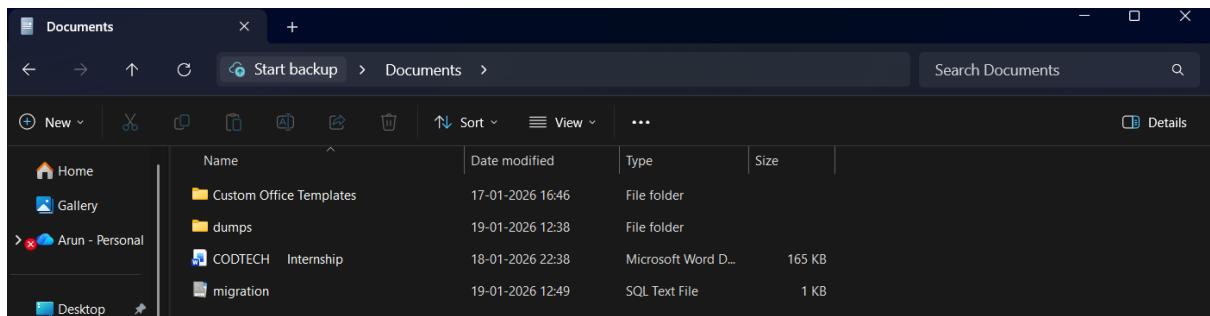
Showing rows: 1 to 3

	emp_id [PK] integer	name character varying (100)	department character varying (50)	salary integer
1	1	Arun	HR	30000
2	2	Bala	IT	50000
3	3	Chitra	Finance	45000

Total rows: 3    Query complete 00:00:00.351

The screenshot shows a PostgreSQL query tool interface. In the top-left corner, there are tabs for 'Query' and 'Query History'. Below them is a code editor window containing a single line of SQL: 'SELECT \* FROM employees;'. The number '1' is positioned to the left of the line, indicating it is the first row of the result set. In the bottom-left corner of the code editor, there is a small number '1'. Below the code editor is a navigation bar with tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is currently selected. To its right, the text 'Showing rows: 1 to 3' is displayed. Underneath the navigation bar is a toolbar with several icons. The main content area displays a table with four columns: 'emp\_id', 'name', 'department', and 'salary'. There are three rows of data: Row 1 (emp\_id 1) has name 'Arun' and department 'HR'; Row 2 (emp\_id 2) has name 'Bala' and department 'IT'; Row 3 (emp\_id 3) has name 'Chitra' and department 'Finance'. The salary column shows values 30000, 50000, and 45000 respectively. At the bottom of the interface, there is a status bar with the text 'Total rows: 3' and 'Query complete 00:00:00.351'.

5.Verified migration data:

A screenshot of a code editor window titled "migration.sql". The menu bar includes "File", "Edit", and "View". The code in the editor is as follows:

```
CREATE TABLE employees (
    emp_id INT PRIMARY KEY,
    name VARCHAR(100),
    department VARCHAR(50),
    salary INT
);

INSERT INTO employees VALUES
(1, 'Arun', 'HR', 30000),
(2, 'Bala', 'IT', 50000),
(3, 'Chitra', 'Finance', 45000);

SELECT * FROM employees;
```

**Result:**

Data successfully migrated without data loss

**Conclusion:**

The migration process was completed successfully ensure data integrity