Task 3 Summary Report: Manual Database Migration (MySQL to PostgreSQL)

CodTech SQL Internship

Objective

The aim of this task was to migrate a database from **MySQL** to **PostgreSQL** while maintaining the accuracy and completeness of data (data integrity).

Tools Used

- MySQL Workbench – to export the database
- pgAdmin – to create and manage PostgreSQL database
- Text Editor (e.g., Notepad or VS Code) – to clean and modify SQL file

Migration Approach (Without pgloader)

Step 1: Exporting MySQL Database

1. Opened MySQL Workbench.
2. Navigated to `Server > Data Export`.
3. Selected the database `sql_internship`.
4. Chose `Export to Self-Contained File` and named it `sql_internship.sql`.
5. Clicked on `Start Export` to generate the SQL dump.

Step 2: Creating Target Database in PostgreSQL

1. Opened pgAdmin.
2. Right-clicked on `Databases` and selected `Create > Database`.
3. Named it `sql_internship_pg` and clicked Save.

Step 3: Cleaning the SQL File

1. Opened the MySQL dump file in a text editor.
2. Removed or fixed MySQL-specific syntax like:
   - `USE database;`
   - Backticks (`)
   - `ENGINE=InnoDB` or other MySQL storage engine options
3. Ensured that table creation and data insertion were compatible with PostgreSQL.
4. Saved the cleaned file as `sql_internship_pg.sql`.

Step 4: Running the SQL File in pgAdmin

1. Opened the `sql_internship_pg` database in pgAdmin.
2. Right-clicked and selected `Query Tool`.
3. Opened and executed the cleaned SQL script.
4. Verified that all tables were created and data was inserted successfully.

Verification of Data Integrity

To confirm that the data migrated correctly, I ran the following queries in both MySQL and PostgreSQL:

```
SELECT COUNT(*) FROM EmployeeSalaries;
SELECT * FROM EmployeeSalaries;
```

- Row counts matched in both databases.
- Sample records were also verified manually.

Submitted Files

- `sql_internship.sql` – Original MySQL dump
- `sql_internship_pg.sql` – Cleaned version for PostgreSQL
- `This pdf` – Summary of the migration process (this report)
- `pgadmin_screenshots/` – Proof of restored tables and queries

Conclusion

This task taught me how to:

- Export a MySQL database
- Create and manage PostgreSQL databases using pgAdmin
- Clean and adapt SQL files for compatibility
- Verify data integrity after migration

Status: Task Completed Successfully without using pgloader.