

## Task 3 - Database Migration

### Summary Report (MySQL Part)

#### Objective:

To inspect and validate the MySQL database prior to migration, ensuring data integrity and schema correctness before transferring to PostgreSQL.

#### Tools Used:

- MySQL Server
- MySQL Workbench / Command Line
- SQL Queries for Validation

#### Steps Performed in MySQL:

##### 1. Checked Existing Tables

```
SHOW TABLES;
```

##### 2. Verified Schema Structure

```
DESCRIBE users;
```

```
DESCRIBE orders;
```

```
DESCRIBE products;
```

##### 3. Verified Row Counts

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

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

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

4. Sample Data View

SELECT \* FROM users LIMIT 5;

SELECT \* FROM orders LIMIT 5;

SELECT \* FROM products LIMIT 5;

5. Null Value Checks

SELECT \* FROM users WHERE email IS NULL;

SELECT \* FROM orders WHERE user\_id IS NULL;

6. Duplicate Data Check

SELECT email, COUNT(\*) FROM users GROUP BY email HAVING COUNT(\*) > 1;

7. Foreign Key Integrity Check

SELECT \* FROM orders WHERE user\_id NOT IN (SELECT id FROM users);

Validation Summary:

Table	Rows	NULL Issues	Duplicates	Foreign Key Issues
users	1250	None found	None found	N/A
orders	5043	None found	N/A	0 broken links
products	823	None found	N/A	N/A

Conclusion:

All MySQL data and schema structures were successfully validated and prepared for migration.

No critical issues (nulls, duplicates, broken links) were found, ensuring the data is ready for export to PostgreSQL.