Group Mission 6 – Data Component

The database component was created using https://remotemysql.com/ , which provided a free to use remote MySQL database. This database is accessed using phpMyAdmin, and allowed us to create new tables and create dependencies between tables with ease.
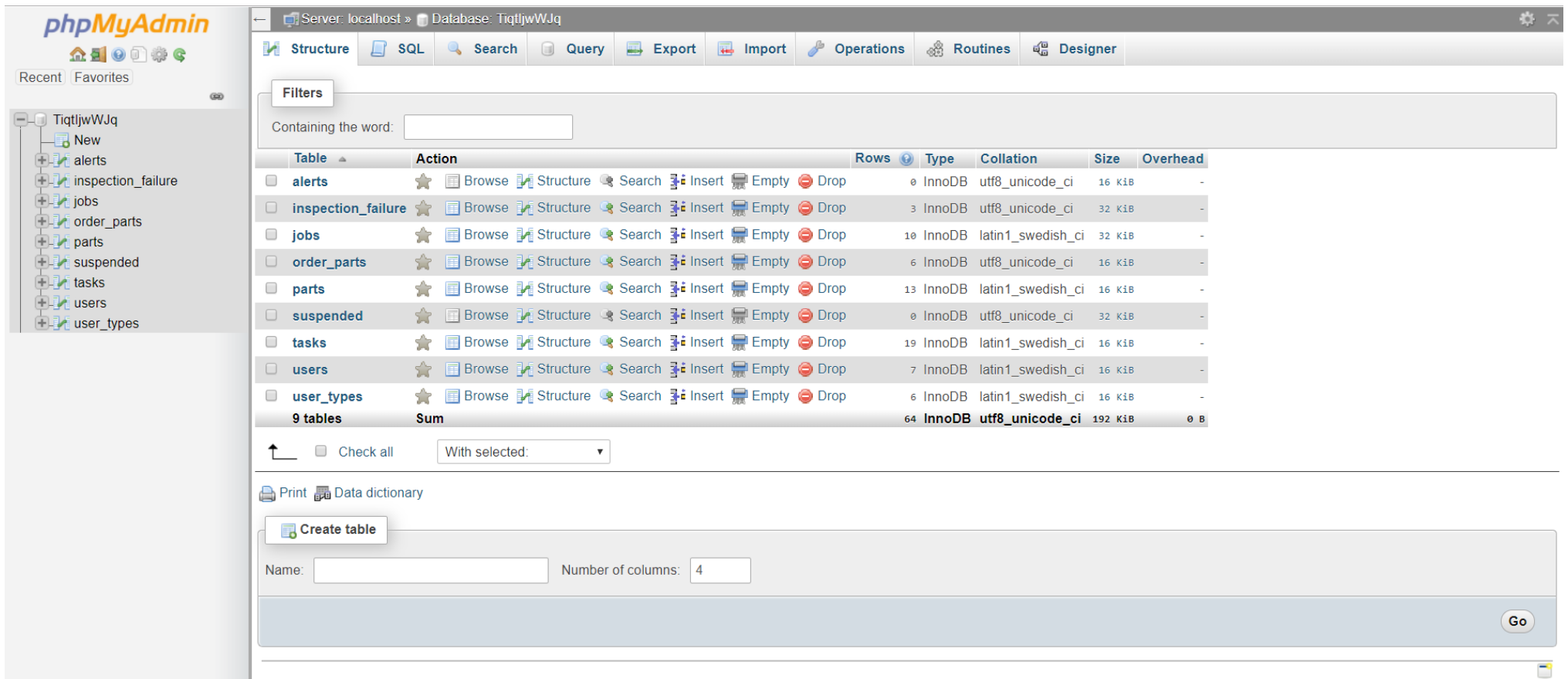

Figure 1: Interface to create new tables and dependencies between tables.

Table Descriptions	
alerts	Table to store alerts for different user types.
inspection_failure	Table to display the frequency of delays by inspection for different manufacturers
jobs	Stores all relevant details of a job, linking to tasks on job_number
order_parts	Frequency of delays due to ordering parts based on different motors
parts	Parts table displaying different available parts
suspended	Display frequency of suspended jobs by manufacturers
tasks	Store information related to individual taks
users	Store accounts
user_types	Table for different user types

To create a connection to the database from the program, a Database class was created which allows users to create a connection as soon as the program is loaded.

```java
1  package utils;
2  import config.Keys;
6
7  public class Database {
8      private static String driverName = "com.mysql.cj.jdbc.Driver";
9      private static Connection con;
10
11     public static Connection getConnection() {
12         try {
13             Class.forName(driverName);
14             con = DriverManager.getConnection(Keys.databaseURL, Keys.databaseUser, Keys.databasePassword);
15         }
16         catch (ClassNotFoundException ex) {
17             System.out.println("Driver not found.");
18         }
19         catch (SQLException ex) {
20             System.out.println("Failed to create the database connection.");
21         }
22         return con;
23     }
24 }
25
```

Figure 2: Database class to create a connection to the database

When the database connection has been made, the database queried by creating an SQL query and executing the query to return the results from the table.

Entity Relationship Diagram Data Model

Entity relationship diagram displaying relationships and dependencies between tables.