Setting up JDBC (Java Database Connectivity) in Eclipse involves several steps. Here's a guide to help you get started. This instruction is justified on Windows 11, Eclipse IDE for Enterprise Java and Web Developers (Version: 2024-09 (4.33.0)), and mysql-connector-j-9.0.0. The instruction is partially generated by ChatGPT using prompt "how to set up jdbc on eclipse".

#### 1. Install Eclipse

Make sure you have Eclipse IDE installed. You can download it from the Eclipse website (https://www.eclipse.org/downloads/).

# 2. Create a New Java Project

- 1. Open Eclipse.
- 2. Go to File > New > Java Project.
- 3. Enter project name 'coms363' and click Finish.

## 3. Add JDBC Driver

You need to add the JDBC driver for MySQL. Here are the steps:

- 1. Download the MySQL Connector/J from the MySQL website (<a href="https://dev.mysql.com/downloads/connector/j">https://dev.mysql.com/downloads/connector/j</a>).
- 2. Extract the downloaded ZIP file. You'll find a JAR file (e.g., `mysql-connector-java-x.x.x.jar`).

#### 4. Add the JDBC Driver to Your Project

- 1. Right-click on your project in the Package Explorer.
- 2. Select Build Path > Configure Build Path.
- 3. In the Libraries tab, click on Add External JARs....
- 4. Navigate to the location of the JDBC driver JAR file, select it, and click **Open**.
- 5. Click Apply and Close.



#### 5. Write JDBC Code

Create a new Java class to write your JDBC code.

- 1. Right-click on `src` in your project.
- 2. Select New > Class.
- 3. Name your class (e.g., 'JDBCexample') and click Finish.

## 6. Example JDBC Code

You can download JDBCexample.java from Canvas. If eclipse generate a module-info.java file, you need to delete that file

```
    Coms363
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```

### 7. Run Your Application

- 1. Right-click on your class in the **Package Explorer**.
- 2. Select Run As > Java Application.

#### 8. Troubleshooting

- Driver Not Found: Ensure you have added the JDBC driver JAR to your build path.
- Database Connection Issues: Verify the database URL, username, and password.
- "coms363.JDBCexample.connect" is null: run the following code in MySQL
  create database if not exists project1;
  create user 'coms363'@'localhost' identified by 'password';
  grant all privileges on \*.\* to 'coms363'@'localhost';
- **SQL Exceptions**: Check your SQL syntax and ensure the database is running.