Development Manual

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Software Installations

1. Java Development Kit (JDK)
    a. The gym management system has been implemented using Java Maven Project and so Java is the main software that is need to run the system.
    b. Go to http://www.oracle.com/technetwork/java/javase/downloads/index.html to download and install JDK.
    c. The installation instructions are given at https://docs.oracle.com/javase/9/index.html
2. Since the project is a maven project, all the additional dependences have been included in the pom.xml. These dependencies will be automatically downloaded and installed for the project.
3. MySql Community edition
    a. The Gym management system uses MySql, a relational database to store the data
    b. Go to https://dev.mysql.com/downloads/mysql/ to download MySql
    c. Choose the appropriate operating system and download the software.
    d. Follow the online instructions at https://dev.mysql.com/doc/refman/5.7/en/installing.html to install the MySql server..
4. Git
    a. The version control of the gym management system is maintained using GIT a version control tool
    b. Go to https://git-scm.com/downloads to download Git and follow the installation instructions at https://git-scm.com/book/en/v2/Getting-Started-Installing-Git to install it.
5. Eclipse
    a. Eclipse is a Java IDE used for programming. Any IDE can be used to setup this project but this manual will only give instructions on how to setup the project in Eclipse.
    b. Eclipse can be downloaded from http://www.eclipse.org/
    c. Documentation for eclipse is available at http://www.eclipse.org/users
    d.
6. Tomcat
    a. Apache Tomcat is an open source Java Servlet Container.
    b. It can be downloaded from https://tomcat.apache.org/download-90.cgi

Project setup

Cloning the project

1. Using the link below clone the git repository to your desktop
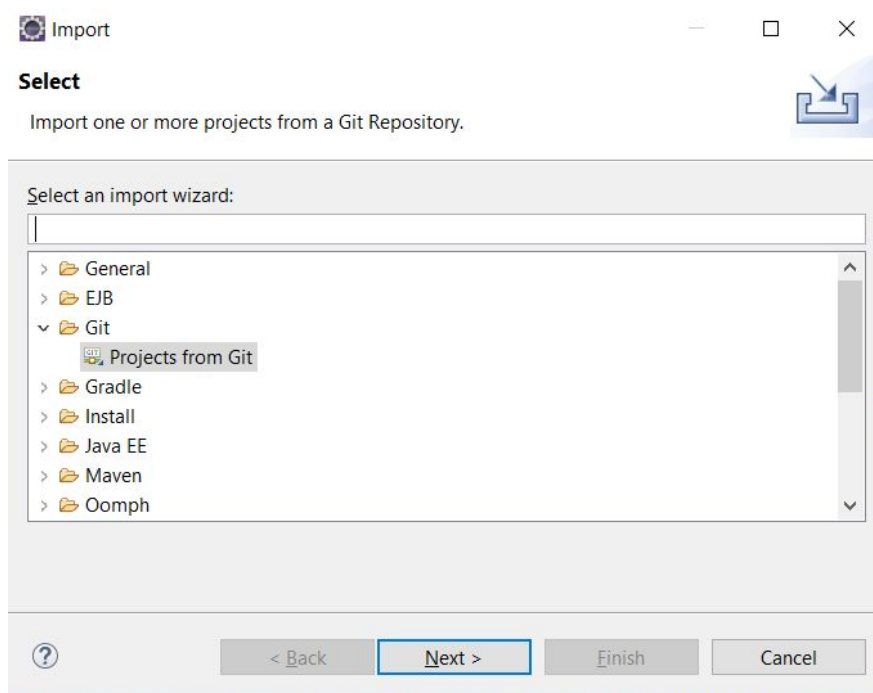   https://github.com/annettekotian/cs414-f17-801-enigma.git

Setting up the database

1. A database dump of the gym management system called **"gym_system_schema.sql"**, is present in the folder "db_schema" located at the root of the repository.
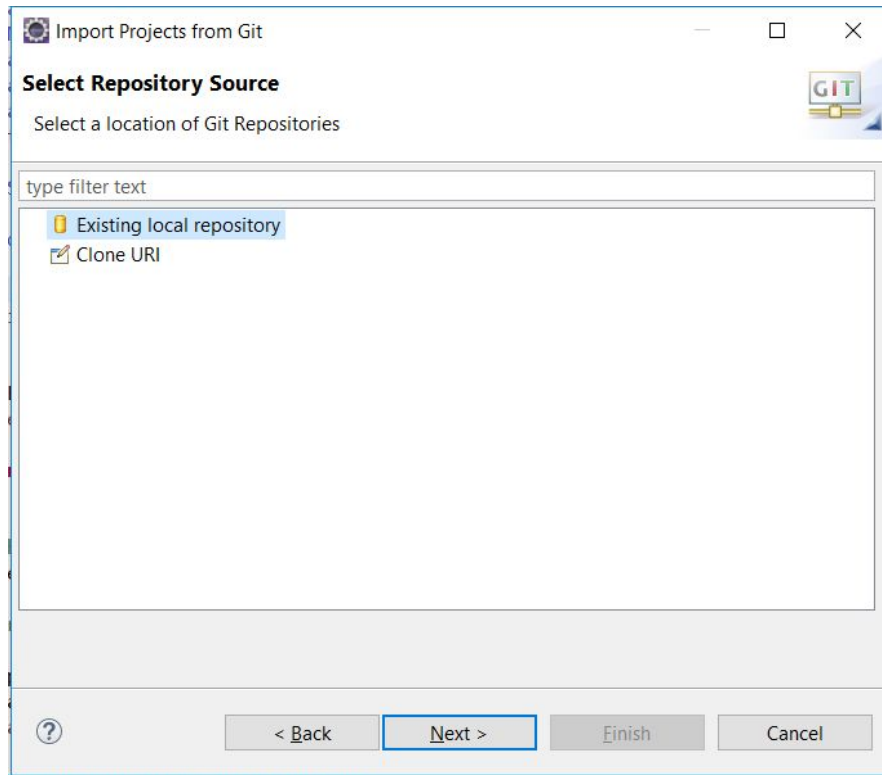2. Use the following command to run the sql script file

```
mysql -u username -p database_name < file.sql
```

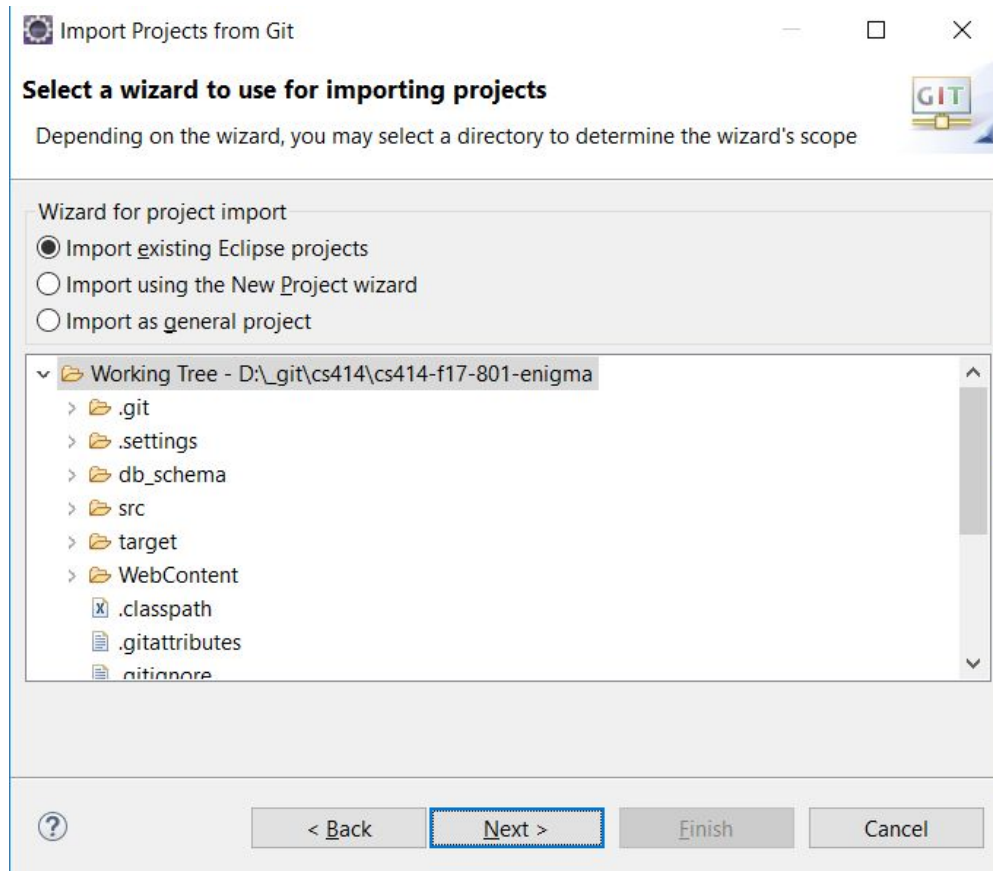## Setting up the project in Eclipse

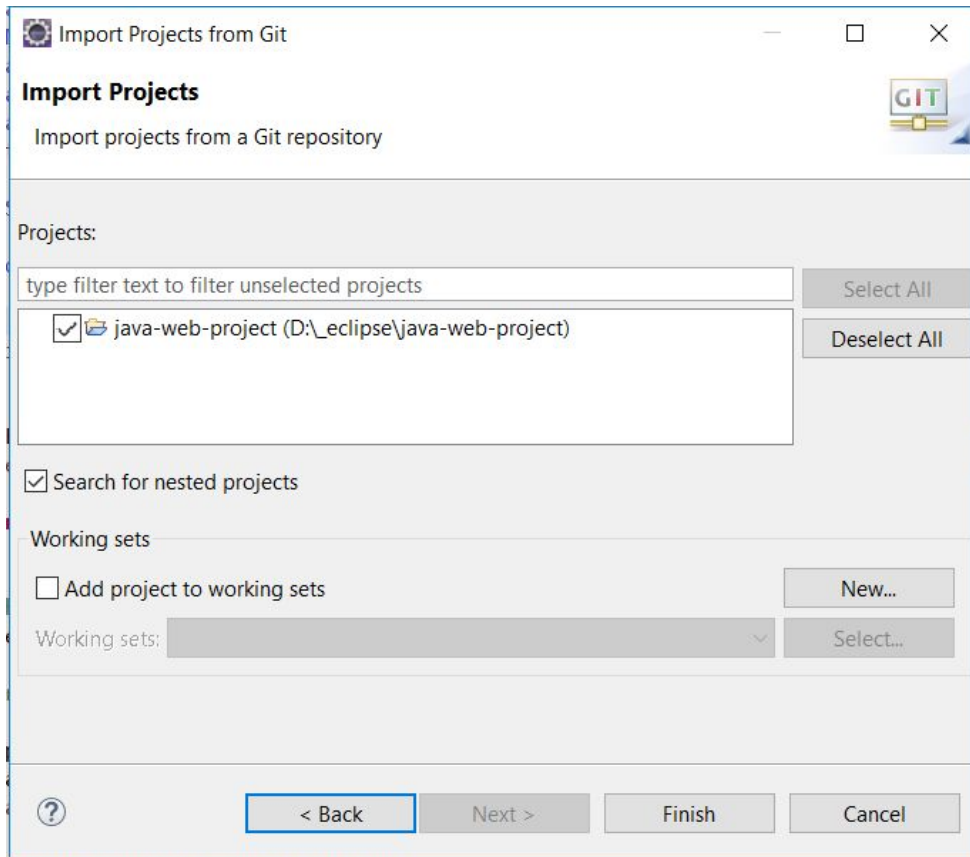1. After opening eclipse go to File>Import>Projects from GIT

2. Click next. Choose Existing Local Repository.

3. Click next. Click Add and choose the path the repository cloned on your local system
4. Click on Import existing Eclipse projects

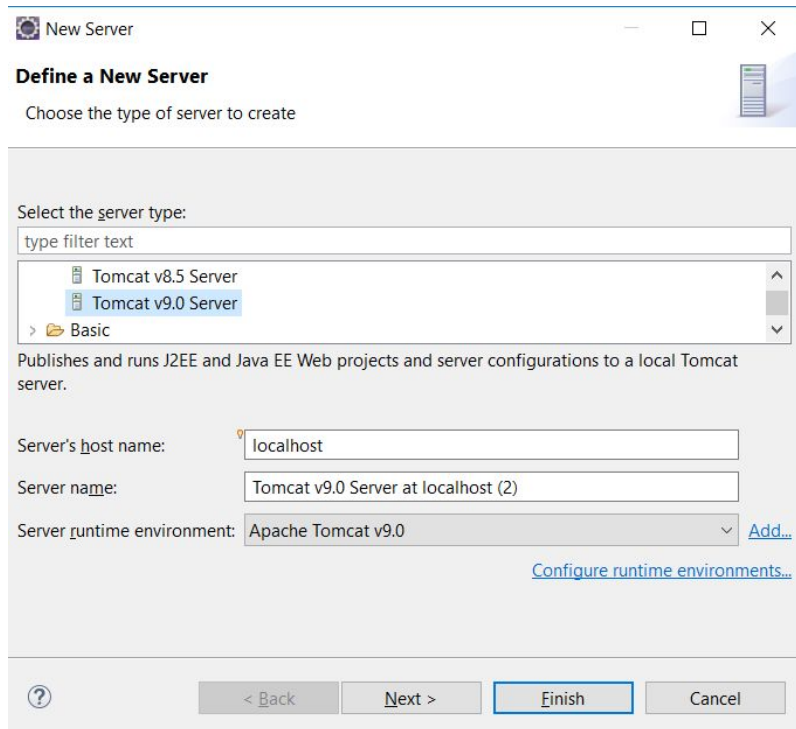5. Click next. Select the project to be imported.

6. Click next.
7. Open persistence.xml located in {local_repository_path}\src\main\resources\META-INF.
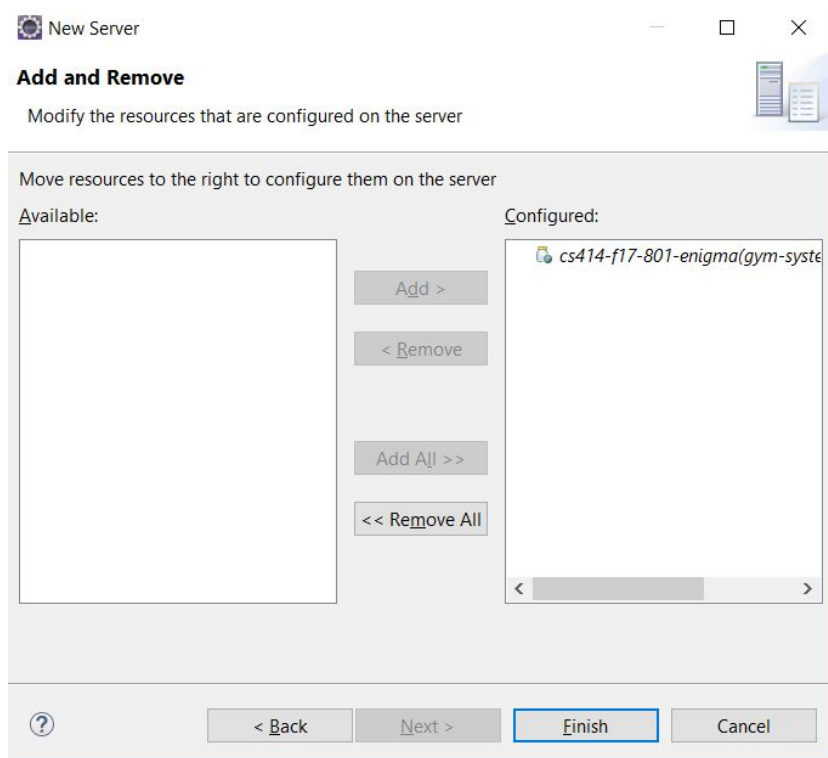8. It will have a tag looking like this

        <property name="javax.persistence.jdbc.user" value="root" />
        <property name="javax.persistence.jdbc.password" value="pass123"/>

9. Set the username and password your MySql username and password

Setting up tomcat with the project

1. Open the servers window in eclipse.
2. Right click > New > Server

3. Click next. Choose the project to be added to the server and click Finish

4. To run the project, right click on the project > Run as > Run on Server. The server should start and the web browser should display the login page of the gym system.

Running the tests

1. The src>tests folder within the repository has all the Unit Test cases written using JUnit.
2. The package java.edu.colostate.cs.cs41.enigma has the test suite file called "AllTests.java" which will run all the test cases. In order to run the file from eclipse right click on the file>Run as> JUnit Test. This test suite will run all the test files within the test folder.
3. Additionally, there are more test files within the packages in the test folder. To run any test individually - right click on the file>Run as> JUnit Test