

How to Set Up Development Environment

1. Install Software/Dependencies
 - a. Install Eclipse IDE
 - i. The installation file can be found on the following website:
 1. <https://www.eclipse.org/downloads/packages/eclipse-ide-java-developers/oxygen1a>
 - ii. Ensure that the correct OS installation file for your machine is selected (can be found below 'Download Links' on website).
 - b. Install MySQL Workbench
 - i. The installation file can be found on the following website:
 1. <https://dev.mysql.com/downloads/workbench/>
 - ii. Ensure that the correct OS is selected (can be found below 'Select Operating System: ').
 - iii. Click 'Download' button
 - c. Install MySQL Server
 - i. The installation file can be found on the following website:
 1. <https://dev.mysql.com/downloads/mysql/>
 - ii. Ensure that the correct OS is selected (can be found below 'Select Operating System: ').
 - d. Click 'Download' button
2. Get Project Files on Machine
 - a. Enter 'git clone https://github.com/ashhcree17/cs414-f17-801-Ashton.git' into the terminal/command line prompt on your machine.
 - i. This step copies the project source code onto your machine.
3. Get Project Files into Eclipse IDE
 - a. Open Eclipse IDE.
 - b. A prompt to enter an Eclipse workspace name will appear. This workspace name is not important for successful access to the project, so its name can be anything (e.g., "eclipse-workspace", "cs414-workspace", etc).
 - c. Select 'File'
 - d. Select 'Import...'
 - e. Select 'Gradle'
 - f. Select 'Existing Gradle Project'
 - g. Select 'Browse...' (location: to right of 'Project root directory' input bar).
 - h. Navigate to the location of the previously cloned git repository folder.
 - i. Click 'Open' button (project source files will appear)
4. Start MySQL Server
 - a. For a Windows machine, enter ' "C:\Program Files\MySQL\MySQL Server 5.7\bin\mysqld" --console' (adjust path name as necessary)

- b. For a Macintosh machine, enter 'sudo launchctl load /Library/LaunchDaemons/mysql.agent.plist' (path name should not need to be adjusted)
- 5. Get Project Database into MySQL Workbench
 - a. Open MySQL Workbench.
 - b. Create New Connection (and Connect)
 - i. Click [+] button to right of 'MySQL Connections' title seen on the home screen.
 - ii. In the resulting 'Setup New Connection' form that displays, do not enter information or make any changes from what is default.
 - iii. Click 'OK' button.
 - iv. Select the newly created 'Local instance 3306' database to open.
 - c. Import Data
 - i. Select 'Data Import/Restore' under the 'Management' section of the Workbench left side panel.
 - ii. Click the radio button to the left of 'Import from Self-Contained File'.
 - iii. Check if the input field found to the right of 'Import from Self-Contained File' has a file auto-populated in it.
 - 1. If this file is the .sql file found in the project git repository previously cloned onto your machine, you may continue to Step iv.
 - 2. If this file is not the .sql file or there is no file auto-populated, then click the '...' button.
 - a. Navigate to the location of the previously cloned git repository folder.
 - b. Expand the 'docs' folder in the git directory
 - c. Select the file named 'globo_gym_db.sql'.
 - iv. Click 'Start Import' button at bottom right of screen.

How to Run the System

1. Enter './gradlew clean bootRun' into command line
2. Visit 'localhost:8080/sdnext' into address bar of an Internet browser

How to Run Tests

1. By Command Line
 - a. Enter './gradlew clean build' into command line
2. By Eclipse
 - a. Expand 'src' folder in 'globoGymMS' directory
 - i. Expand src --> test --> java --> globoGymMS, AND
 - ii. Expand src --> integrationTest --> java --> globoGymMS

- b. Right-click the folder 'globoGymMS' for src/test/java
- c. Select 'Run As' --> 'JUnit Test'
- d. Repeat Steps b. and for src/integrationTest/java

References

1. <https://dev.mysql.com/doc/workbench/en/wb-admin-export-import-management.html>
2. <https://dev.mysql.com/doc/mysql-monitor/3.4/en/mem-starting-agent-osx.html>
3. <https://dev.mysql.com/doc/refman/5.7/en/windows-server-first-start.html>
4. <https://dev.mysql.com/doc/workbench/en/wb-mysql-connections-new.html>
5. <https://stackoverflow.com/questions/17371639/how-to-store-arrays-in-mysql>
6. https://www.w3schools.com/sql/sql_primarykey.asp
7. <http://www.joinfu.com/2005/12/managing-many-to-many-relationships-in-mysql-part-1/>
8. <https://www.dineshonjava.com/spring-mvc-with-hibernate-crud-example/>