

Local Environment Setup

1. Github

See document: Github

2. Database

2.1 Install MySQL

Software

Software: MySQL Community Edition
Link: <http://dev.mysql.com/downloads/>
Click: MySQL Community Server
Version: 5.7.17 (as of 1/2/2017)

Installation

Accept all the default configuration during installation.

Some of the components may fail to install. Make sure you have the following installed successfully:

- MySQL Server
- MySQL Workbench
- Connector/ODBC (?)

MySQL Root Password:

Enter the password that C4SG configuration uses: `mysql`

If you use a different password, please change the config setting in *application.properties*:

```
# Username and secret
spring.datasource.username = root
spring.datasource.password = mysql
```

2.2 Run the DDL script

Launch MySQL Workbench.

Run the script located in the repository:

```
\Documentation\Database\Table_Definition.sql
\Documentation\Database\Data_Load.sql
```

Refresh Schemas. You will see `c4sg` schema created. Tables are loaded with dummy data.

3. Backend

3.1 Setup in IDE

Install your preferred IDE: Eclipse, STS, IntelliJ Idea, etc.

Import C4SGSvc source code.

Run the application in IDE.

Make sure MySQL is running.

3.2 Test Backend

Test JSON API in browser: <http://localhost:8080/api/project/all>
The API show returns JSON data

3.3 Eclipse Specific Setup

3.3.1 Download Java JDK

Link: <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
Version: 8u112 (as of 1/2/2017)
Accept all the default configuration during installation

3.3.2 Download Eclipse

Link: <https://eclipse.org/downloads/>
Version: Neon (as of 1/2/2017)
Type: Eclipse IDE for Java EE Developers

3.3.3 Launch Eclipse

Select a directory as workspace: Click "browse" to create a new folder as your workspace

3.3.4 Install Plugin

Help -> Eclipse Marketplace
Install Plugin: Spring Tool Suite (STS) for Eclipse 3.8.3.RELEASE

3.3.5 Import project

File -> Import -> General -> Projects from Folder or Archive
Import Source: C4SGSvc
Import as: Maven
Verify there is no warnings or errors

3.3.6 Run application

Right click on project: C4SGSvc, Run as: Spring Boot App
Verify Last line in console: org.c4sg.C4SgApplication : Started C4SgApplication in 9.852 seconds

4. Frontend

4.1 Install IDE

Install your perferred IDE: Sublime, WebStorm, etc

4.2 Install Node.js

Software: Node.js (we install Node.js in order to get npm package manager from Node.js)
Link: <https://nodejs.org/>
Version: v6.9.2 LTS (as of 1/2/2017)

Accept all the default configuration during installation

4.3 Install npm packages

Click Windows Start button, launch "Node.js command prompt"

Run the commands

```
> cd <path_to_local_repository>\C4SGWeb  
> npm install
```

A new folder is created under C4SGWeb: \node_modules

4.4 Test Frontend

Run the command: `> npm start`

The application is launched in browser: <http://localhost:3000/>

Click Volunteer - > Projects, verify that you can see dummy projects retrieved from database.