Instructions for Building Source Code

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Prerequisites

Platform: Windows
Java 10 JDK and JRE and Maven installed

Programs:
Eclipse Jee 2018-2019
MySQL WorkBench

Files
MySQL server :
https://cdn.mysql.com//Downloads/MySQL-8.0/mysql-8.0.12-winx64.zip

For JARs:

MySQL Connector/J
https://cdn.mysql.com//Downloads/Connector-J/mysql-connector-java-8.0.12.zip

Apache Tomcat:
http://apache.mirror.gtcomm.net/tomcat/tomcat-9/v9.0.12/bin/apache-tomcat-9.0.12-windows-x64.zip

INITIAL SETUP

Setting up MySQL server on local computer

Will assume port number is 3306

1. Unzip the MySql server to any location
   shorten and rename the directory to "c:\myWebProject\mysql"
   (will be referred to c:\myWebProject\mysql for instructions)
2. Run windows command prompt and change location to \myWebProject\mysql\bin
3. Run command:
   mysqld --initialize --console
   A temporary password is generated for root@localhost: xxxxxxxx
   Save the password somewhere as it will be used later

   IF ANY MISTAKES WERE DONE (like forgetting password), DELETE FOLDER AND REPEAT STEPS 1-3

4. Launch another windows command prompt in same location (\myWebProject\mysql\bin)
   Start server by using command :
   mysqld --console
   Output should be:

```
mysqld --console
......
......
XXXXXX XX:XX:XX [Note] mysqld: ready for connections.
Version: '5.7.xx'  socket: ''  port: 3306  MySQL Community Server (GPL)
```

This command prompt should be opened for any time you need to use the server

Making the client and schema for the server

1. Open a command prompt from the location from previous setup (\myWebProject\mysql\bin)
2. Run command :
   mysql -u root -p
   output should be :

```
mysql -u root -p
Enter password:   // Enter the root's password set during installation.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.7.21
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

3. Create a client user by the following :

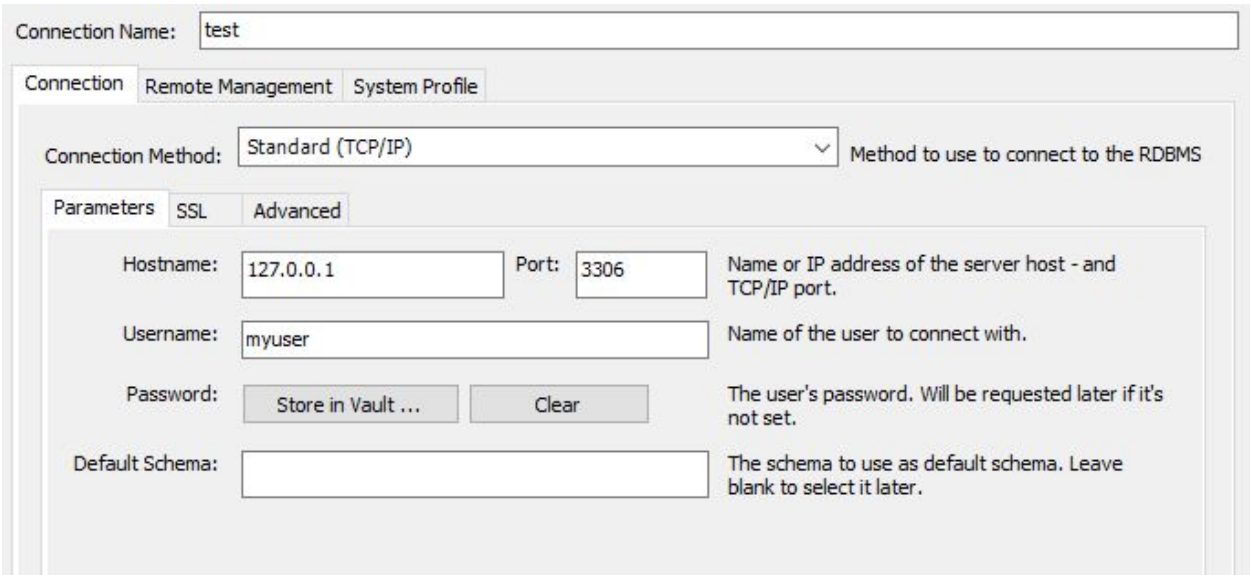
```
-- Create a new user called "myuser", which can login from localhost, with password "xxxx"
mysql> create user 'myuser'@'localhost' identified by 'xxxx';
Query OK (0.01 sec)

-- Grant permission to myuser to perform tasks
mysql> grant all on *.* to 'myuser'@'localhost';
Query OK (0.01 sec)
```

4. Save your username and password in a file along with the database name that you will use for the database. Name that file dbconfig.txt
   For example:

   c01web
   myuser
   jams

   c01web is the database name, myuser is username, jams is password
5. Connect to the local server in MySQLworkbench, Connection name does not matter.

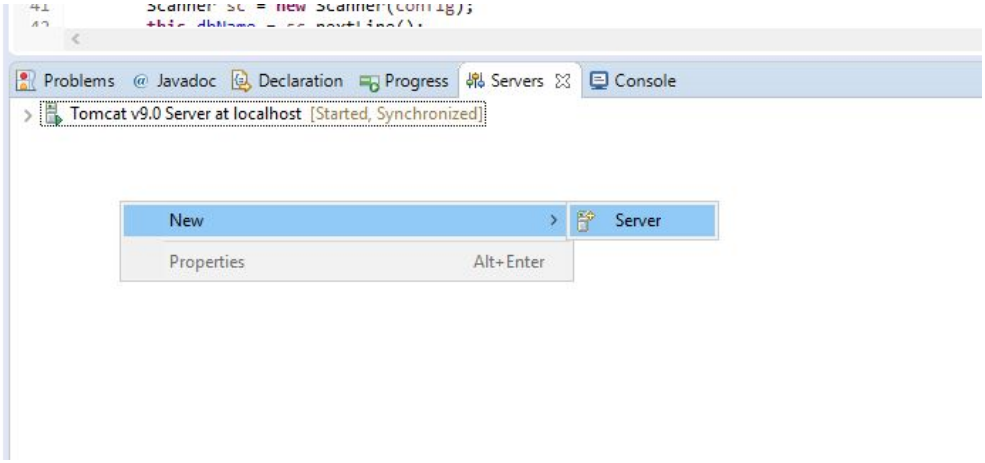


   This will only work if the server command prompt is running

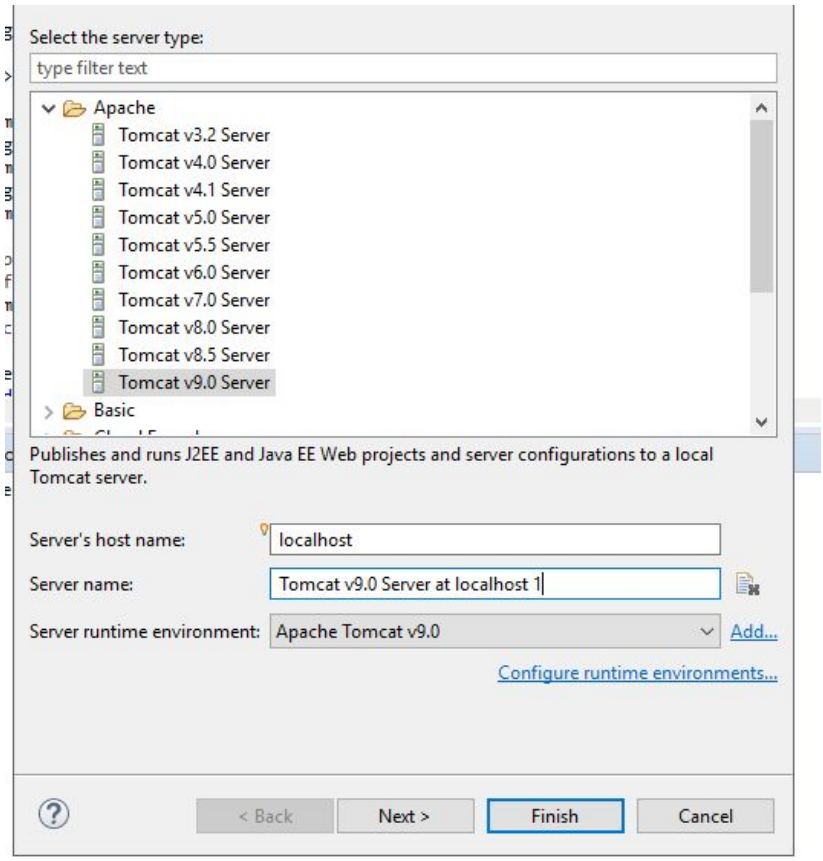
6. Create the database schema in the MySQL workbench using following in a query:
   create database if not exists c01web //or whatever you want your database name is

Set up Eclipse with server

1. Open Eclipse and create a new server under the server tab beside console tab



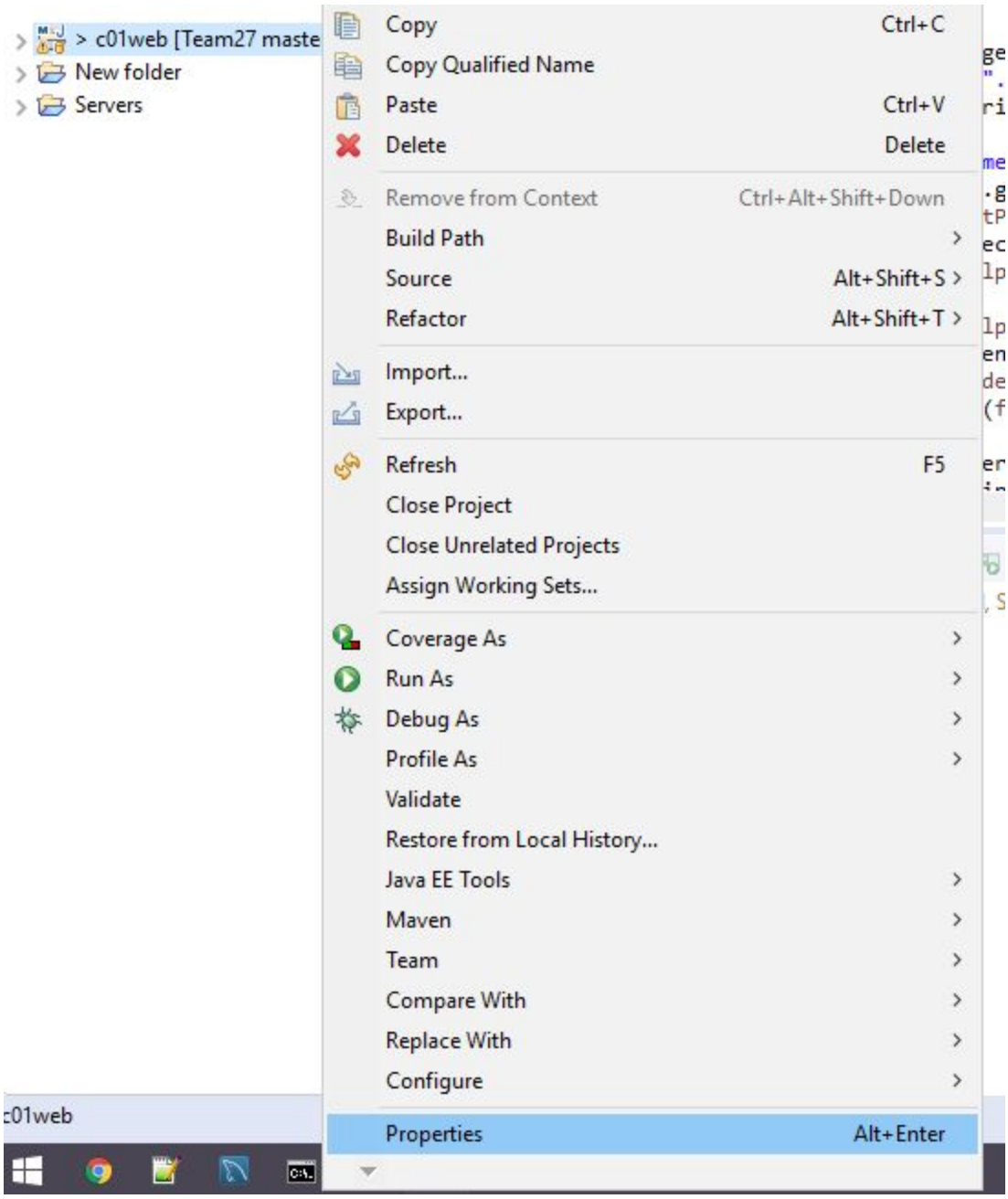
2. Select tomcat 9 (name does not matter) and finish



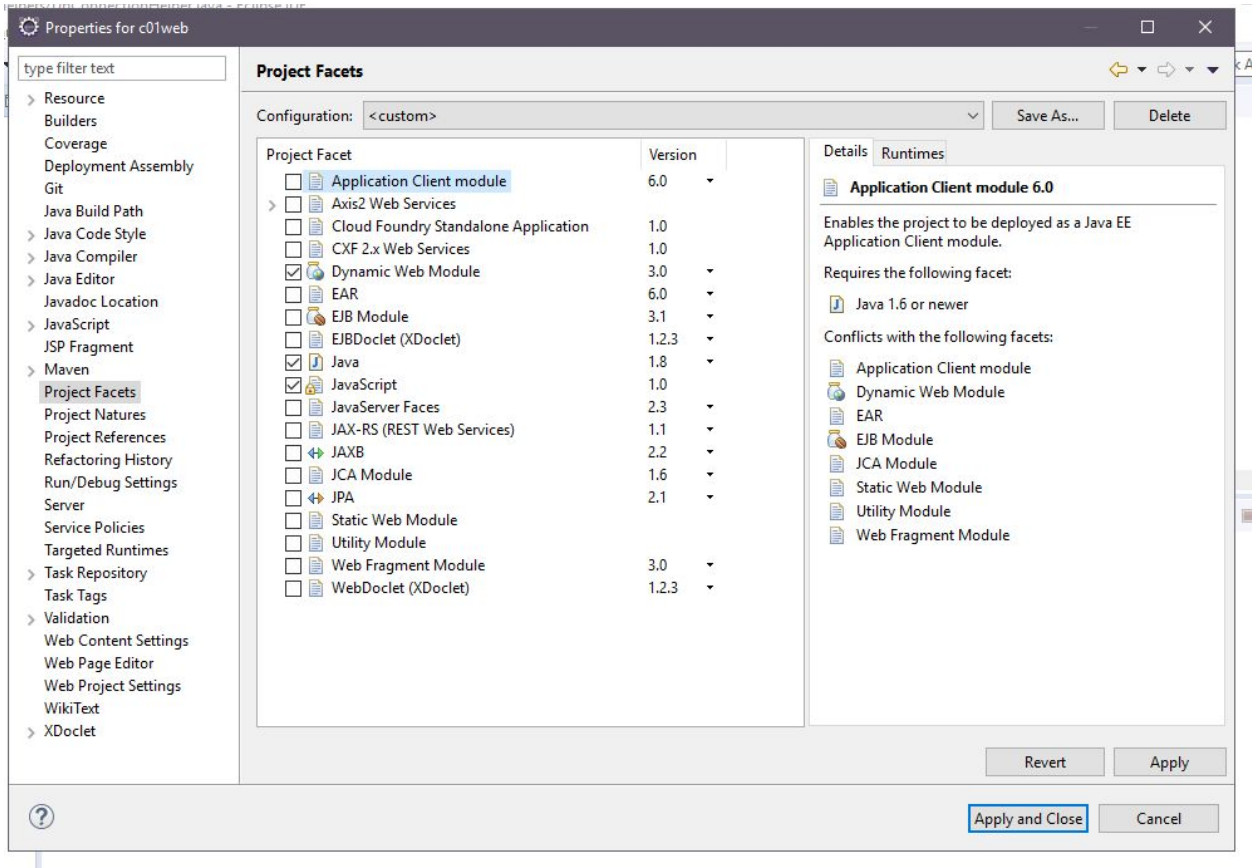
BUILDING CODE FROM GITHUB

1. Clone github repository
2. Place the dbconfig file from before within the path
   Team27\project\webserver\c01web\src\main\java\helpers

3. Using Eclipse, open project from file system with the path :
   Team27\project\webserver\c01web
4. Right click on the project and go to properties

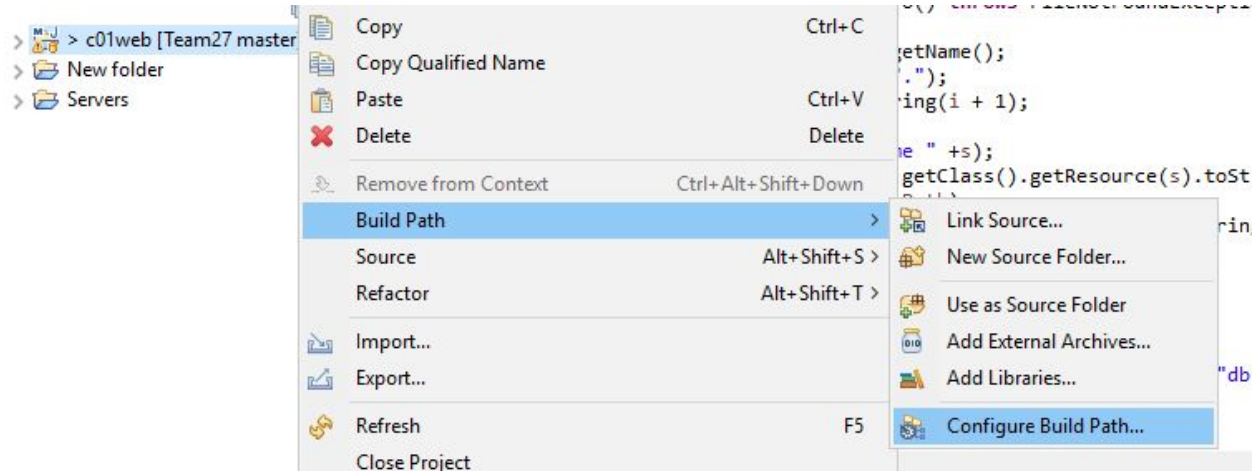


5. Go to project facets on the left navigation bar

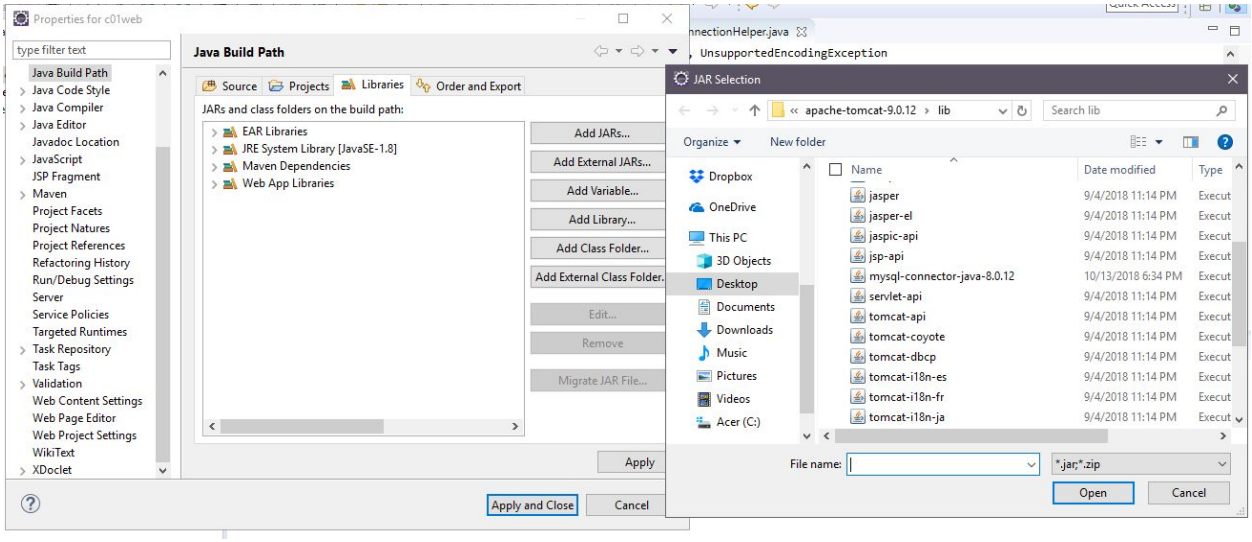


If Java is not 1.8 and Dynamic Web Module is not 3.0, deselect both options and change them to the appropriate one. Click apply then select both of them again.
After that, Apply and close.

6. Right click on the project and go to configure build path

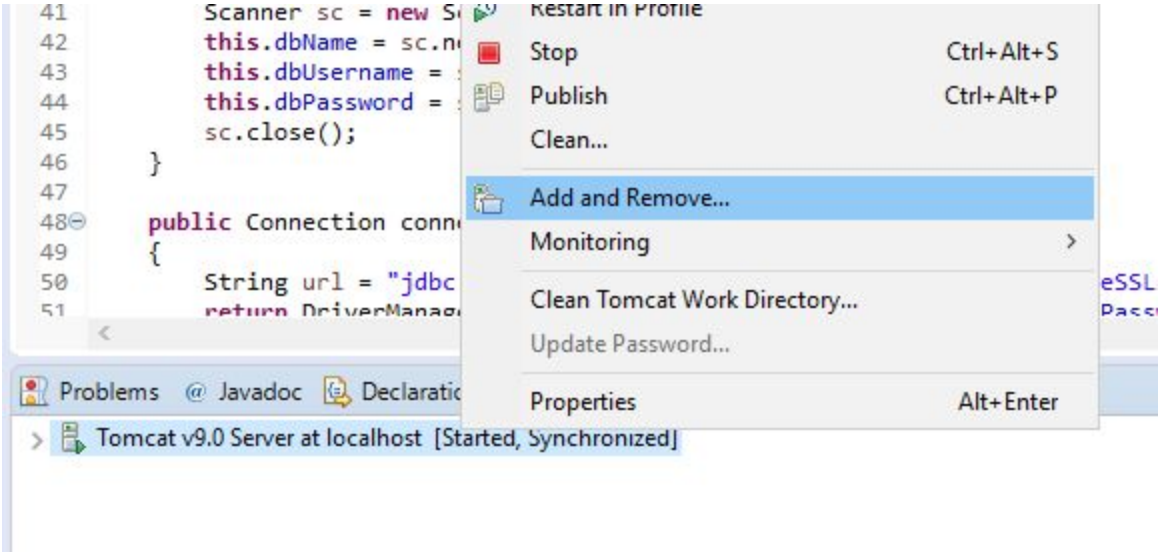


7. Add external JARs



Add the mysql-connector-java-8.0.12 JAR from the MySQL connector zip
Add the servlet JAR from apache-tomcat zip (jar is inside lib folder)
Apply and Close

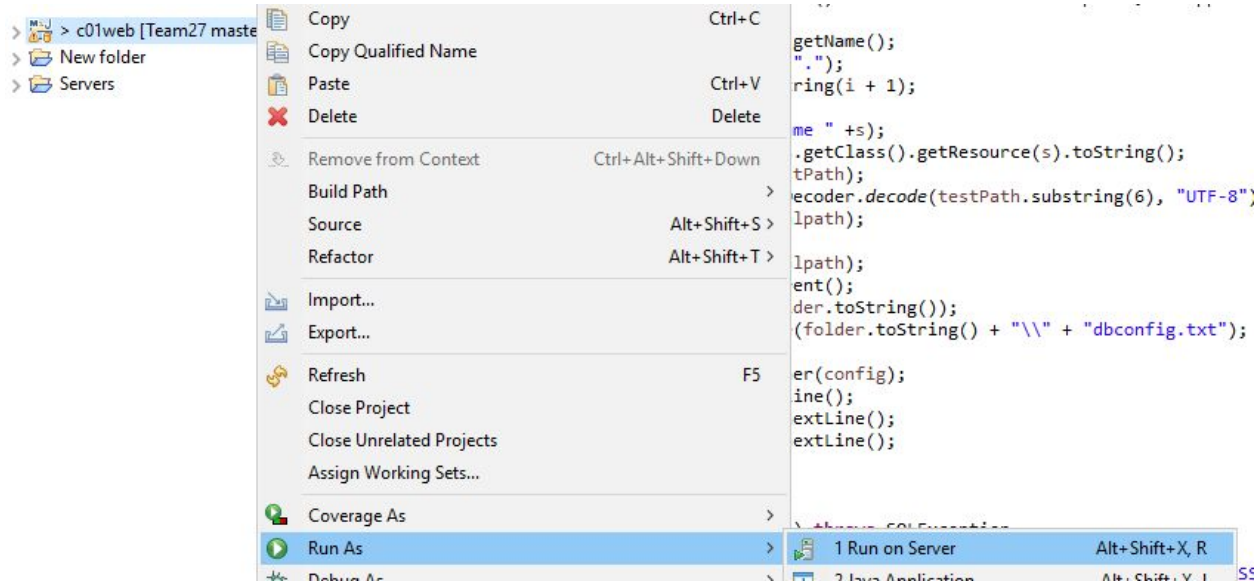
8. Within the server tab from setup, right click and select on Add/Remove



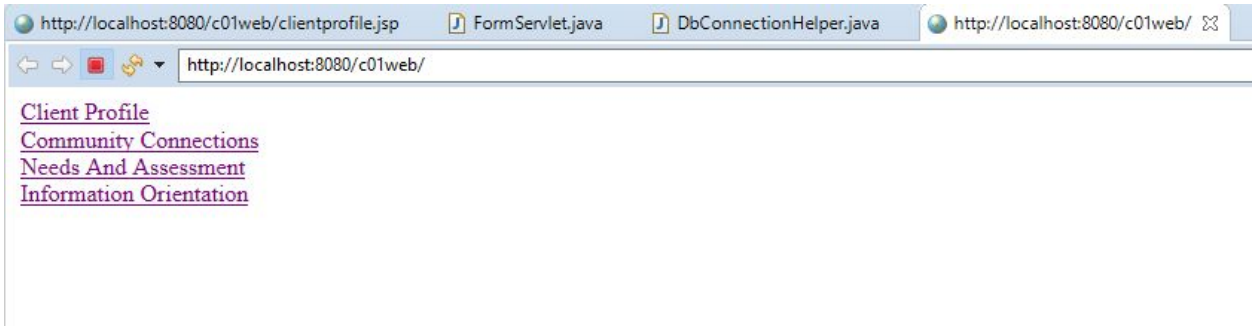
9. Add c01web to the server resources with “Add >”

TO RUN CODE

1. Right click on the project and select run and run on Tomcat server



2. A popup should open on Eclipse to http://localhost:8080/c01web/



3. The code should be run on the browser because Eclipse does not show all features.