**Steps to Get Qualstra working**

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Step 1 – Install STS IDE and Lombok

Download and install Spring Tools Suit (eclipse version). Download the latest lombok.jar and double click it to run or run it using java command. It will open Lombok installer, select ide and click install. Finally, verify the installation by opening STS ide and clicking help>about. The following words must be visible “Lombok v{version} "Envious Ferret" is installed. <https://projectlombok.org/>”, Else, The Lombok installation is not successful. Retry the installation.

Step 2 – Configure and load the projects

Open your new workspace. Import existing projects to workspace and import the following applications

Qualstra consist of the following spring-boot applications:

Under Infrastructure

eureka and gateway

Under Qualstra

Application, attributes, component, entitlement and library.

Change the JDK version in STS to 1.8. Build each application and make sure no errors are thrown during build.

Step 3 – Running the project

1. Run H2 database and load db.

Open Command prompt as administrator, cd to the location of h2.jar (usually in {location}) and type the following command:

java -cp {h2-jar-location} org.h2.tools.Server -web -webAllowOthers -tcp -tcpAllowOthers -baseDir {location} -webPort 9093

{location} – replace this with the location of the h2 jar (usually it is % \Qualstra-2.0\application\src\main\resources\db)

{h2-jar-location}- replace this with the location of h2.jar. Include jar in path ( example: % \Qualstra-2.0\application\src\main\resources\db\h2.jar

Now, you will get the h2 web console running in port 9093. Go to localhost:9093, and login using these credentials.

Settings: generic(server)

Driver Class: org.h2.Driver

JDBC URL: jdbc:h2:tcp://localhost/{location}/psc

username : psc

password : psc123$

{location} – replace this with the location of database. Exclude db file in path (usually it is % \Qualstra-2.0\application\src\main\resources\db)

Verify all the tables showing.

**To Run it quickly,** open a file and copy the command in it and save it as a .bat file. Just double-click the bat file whenever you want to start the h2 database.

1. Run Mongo-DB

Install Mongo-DB (and Mongo DB shell or compass for UI)

now create User for attributes,

run the following cmds in compass/mongodbshell,

use appdb

db.createUser({

user: "appusr",

pwd: "pass",

roles: [{ role: "dbOwner", db: "appdb" }]

})

db.grantRolesToUser("appusr", [{ role: "root", db: "admin" }])

add these to mongod.cfg in the #security part

#better to disable, enabling gives not authorized to do task error

security:

authorization: disabled

run the following command to start the server in cmd prompt(admin mode).

cd {mongo db installed dir}/bin

mongod --config mongod.cfg

{mongo db installed dir} – replace this with the location of mongodb. (usually it is C:\Program Files\MongoDB\Server\7.0)

Check mongo db is working in this connection string:

mongodb://appusr:pass@localhost:27017/appdb

**To Run it quickly**, add it to windows service or copy the above commands to a .bat file and run it

1. Run Angular UI

Install nodejs (if not installed) from <https://nodejs.org/en>

Install Angular CLI using the following command (if not installed)

npm install -g @angular/cli

Open cmd prompt in administrator mode and run the following commands only once (to install dependencies):

cd {Q2UI-location}

npm install --force

Run the following commands in order to start angular UI (can be copied to .bat):

cd {Q2UI-location}

set NODE\_OPTIONS=--openssl-legacy-provider

npm start

or

ng serve --proxy-config proxy.conf.json --host 0.0.0.0

#host is to bind all address (localhost, ipv4add, 127.0.0.1)

#don't use npm start when using in localhost, because it won't bind address

{Q2UI-location}- replace this with the Qualstra angular Directory.

Now, Angular will be serving it in localhost:4200

If it doesn't work, you can try Downgrading to Node.js v16. You can reinstall the current LTS version from Node.js’ website. You can also use nvm. For Windows, use nvm-windows.

**To Run it quickly,** open a file and copy the commands to start angular UI (one command on each line) and save it as a .bat file. Just double-click the bat file whenever you want to start the angular UI.

1. Start the Spring-Boot Applications one by one in the following order:

Before starting, check application.properties file for correct configurations. Always modify the application.properties for your localhost configuration. Local configuration is available in the file “application\_local.properties” in src>main>resources folder. Either run the spring boot app using this file or copy and paste the contents and modify it in the application.properties file.

First start Eureka – runs in localhost:8001

Second start Gateway – runs in localhost:8000

Third Start Attributes - runs in localhost:0

Fourth Start Application – runs in localhost:9090

After Starting, open browser and access application in localhost:8000. (don’t use localhost:4200, as it is served by angular and not gateway)

Use the following login credentials for Qualstra:

username : admin@enochshipping.com

password : enoch123$

Note: the passwords for all the admin id will be one of these: enoch123$, Welcome or welcome.

To use test IDs in local, go to H2 db console and login. Run these SQL querries

SELECT email,password FROM USER

UPDATE user SET password = ‘{encrypted-password}’

#copy the encrypted password for admin@enochshipping.com and replace in (encrypted-password)

#now, you can access all the test ids with the same password.

**Qualstra Troubleshoot:**

Problem:

On running the Spring boot applications getting, Tomcat Sun…java… error

Solution:

Always confirm JDK is set to 1.8 in preferences>java>Installed JREs.

Problem:

Accessing Qualstra through gateway(port:8000) is not working, but through angular(port:4200) works

Solution:

disable antivirus. Some antivirus blocks port forwarding. Check for host binding during ng-serve of Q2UI

Problem:

Applications are not starting in correct port

Solution:

It might be cache problem. Open %\src\main\resources\application.properties and type something in it and erase it then save and re-run.