Gateway NextGen First Time Setup

1. Install Maven and Tomcat 8.0.22 (If not installed already)
    a. Maven
        i. https://maven.apache.org/download.cgi
        ii. Extract to any directory on C: drive
            1. Suggested: C:\Users\{COMMITID}\Programs
        iii. Set JAVA_HOME environment variable to JDK installation
            1. Important: Ensure it points to the JDK, not the JRE
        iv. Create *settings.xml* in your .m2 directory
            1. .m2 directory is usually at : C:\Users\{COMMITID}\m2
            2. Paste into *settings.xml* with text from https://mysourcesocial.bnymellon.net/docs/DOC-84717
    b. Tomcat (8.0.21)
        i. https://archive.apache.org/dist/tomcat/tomcat-8/v8.0.22/bin/
            1. Download apache-tomcat-8.0.22-windows-x64.zip
        ii. Extract to any directory on C: drive
            1. Suggested: C:\Users\{COMMITID}\Programs
        iii. Download the three .jar files listed at the following link and place them in the /lib folder of your Tomcat installation
            1. https://confluence.bnymellon.net/display/IHEMTG/Required+Software+and+System+Access#RequiredSoftwareandSystemAccess-InstallingTomcat
        iv. Edit your Tomcat installation's server.xml file located in /conf
            1. comment out the GlobalResourcesLifecycleListener like so: "
                a. <!-- <Listener className="org.apache.catalina.mbeans.GlobalResourcesLifecycleListener" /> -->
            2. Add the following tag:
                a. <Listener className="bnymellon.bxp.jndi.LDAPStartupListener"/>
2. Clone gng-app repository
    a. https://git.bnymellon.net/fxd-00/gng-app
3. **IMPORTANT:** Make the following changes to gng-app files
    a. File: src/main/webapp/WEB-INF/web.xml
        i. Change ${securityconfig.name} to /WEB-INF/config/security-config.xml
    b. Replace five files (message a gng team member for these files)
        i. hazelcast-config.properties
        ii. context.xml
        iii. gng-static-hazelcast.xml
        iv. gng-deal-hazelcast.xml
        v. security-config.xml
4. Import project into *Eclipse* (Eclipse needed for Activiti plugin)
5. Configure Maven profiles
    a. Right click on project
    b. Hover oven Maven, click Select Maven Profiles
    c. Check *local* and *bnym* (all others should be unchecked)
    d. Click OK
6. Configure Tomcat server
    a. Window -> Preferences -> Server -> Runtime Environments
    b. Click *Add*
    c. Click *Apache Tomcat v8.0*
    d. Click *Next*
    e. Click *Browse* next to the text field under *Tomcat installation directory*

i. Choose the directory where Tomcat is installed
   1. Ex: C:\Users\{COMMITID}\Programs\apache-tomcat-8.0.22
f. Click *Finish*
g. Click *OK*
h. Click "No servers are available . . . " in the Servers tab
i. Select Tomcat v8.0 Server
j. Click *Next*
k. Click *gng-app* and then *Add* and then *Finish*
l. Right click *Tomcat v8.0 Server at localhost* in the Servers tab and then click *open*
m. Click *Open launch configuration*
n. Click the *Arguments* tab
o. In the VM Arguments windows, paste the following properties after the current contents
   i. -Dmnemonic="FXD" -DmanagementUnit="m4k" -Denvironment="dev" -Ddivision="as1" -DdataCenter="cnj" -Dspring.profiles.active=dev,ldap-properties
p. Click *Apply* and then *OK*
7. Run gng-app
a. Click the arrow next to the run button at the top of the page and select *gng-app*
b. A browser window should open up *at http://localhost:8080/gng-app/loginpages/login.jsp* showing the Gateway login screen.

Troubleshooting

- **Error:** Upon each new build, Eclipse may flag a number of problems. If the project is freshly cloned and you haven't changed anything (except for changes outlined in these instructions), these errors may just be due to a number of settings in eclipse. You can change the settings to remove the errors or you can add the "Problems" view to Eclipse and then right click and choose to ignore these errors.
  o Below are a few of the errors with their specific settings that can be altered:
    - "This class has a composite primary key. It must use an ID class."
      - Window -> Preferences -> Java Persistence -> JPA - > check or uncheck "ID class must be used when multiple ID mappings defined."
    - "{java class} is managed, but is not listed in the persistence.xml file"
      - Right click your project -> Properties -> JPA -> Persistent class management -> Select "Discover annotated classes automatically -> Apply
      - Restart Eclipse
    - "Archive for required library: 'C:/Users/{COMIT ID}/.m2/repository/{some}/{path}/{to}/{.jar}' in project 'gng-app' cannot be read or is not a valid ZIP file"
      - Delete directory {some}
      - Right click project -> Maven -> Update Project
      - Check all except "Offline"
      - Make sure "Force update of snapshot/releases" is checked
      - If no luck
        o Delete directory {repository}
        o Close Eclipse
        o mvn clean install
        o Open Eclipse
        o Repeat above
    - "classnotfoundexception"
      - Right click project, properties, project facets, unclick dynamic web, apply, re-click dynamic web, apply