mgwt Toolchain - Windows 7

1. Download Java SE Development Kit 8.
   http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html
   Install.
2. Download Eclipse IDE for Java EE Developers (Kepler SR2).
   https://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/keplersr2
   Unzip.
3. (This step is not necessarily needed for the use of mgwt, but might be helpful during our project.)
   Install EGit (Git Plugin for Eclipse):
   In Eclipse, click *Help > Install New Software…*
   Select the EGit update site http://download.eclipse.org/egit/updates
   Select all, click *Next* and follow the instructions of the installer.
   You will need to restart Eclipse.
4. Download Apache Maven 3.2.1.
   http://maven.apache.org/download.cgi
   Unzip.
   Open System Properties (WinKey + Pause), select *Advanced* tab, click *Environment Variables* button.
   To system variables add
   a. JAVA_HOME
      path of your JDK, e.g. C:\Program Files\Java\jdk1.8.0_05
   b. Path (prepend the value)
      %JAVA_HOME%/bin
   To user variables add
   c. M2_HOME
      path of your unzipped Maven archive, ending with '…\apache-maven-3.2.1'
   d. M2
      %M2_HOME%\bin
   e. Path (if already existing in user variables, prepend the value)
      %M2%
   f. Optional:
      MAVEN_OPTS
      specify JVM properties, e.g. –Xms256m – Xmx512m.
   Open new command prompt (WinKey + R, type *cmd*), run `mvn --version` to verify that it is correctly installed.
5. Install m2eclipse (Maven Plugin for Eclipse):
   In Eclipse, click *Help > Install New Software…*
   Select the m2e update site http://download.eclipse.org/technology/m2e/releases
   Select *Maven Integration for Eclipse*, click *Next* and follow the instructions of the installer.
   You will need to restart Eclipse.
6. Install Google Eclipse Plugin.
   In Eclipse, click *Help > Install New Software…*
   Select the Google update site https://dl.google.com/eclipse/plugin/4.3
   Select all, click *Next* and follow the instructions of the installer. You may have to install a few other things.
   You will need to restart Eclipse.
7. Open new command prompt (WinKey + R, type *cmd*), go to workspace folder and run the following command:
   ```
   mvn archetype:generate -DarchetypeRepository=http://www.m-
   gwt.com/m2/repo -DarchetypeGroupId=com.googlecode.mgwt.archetypes -
   DarchetypeArtifactId=mgwt-standard-archetype -DarchetypeVersion=1.0.8
   ```
   Enter a groupId, an artifactId, a version and a package.

8. Make sure that Eclipse is not running. You only have to do this once per workspace:
   ATTENTION: you have to replace `/path/toyourworkspace` with the respective path
   ```
   mvn eclipse:configure-workspace -
   Declipse.workspace="/path/toyourworkspace"
   ```
9. Create Eclipse project from Maven.
   Go to generated project folder and run: `mvn eclipse:eclipse`
   Rerun anytime your dependencies change.
10. Copy web resources into target.
    run: `mvn war:exploded`
    Rerun anytime you change something in src/main/webapp
11. Import project into Eclipse.
    In Eclipse, click *File > Import…*, choose *Existing Projects into Workspace*, click *Next* and
    select the root directory of your project (i.e. your workspace). Select project and click *Finish*.
12. Configure Google Eclipse Plugin.
    Right-click on imported project, click *Properties*. Select *Google* and expand the node, click
    Web Application. Check *This project has a WAR directory* and enter *src/main/webapp*.
    Uncheck *Launch and deploy from this directory*. Click *OK*.

Additional information:

- Start your project via right-click, *Run As > Web Application*.
  You need to choose *target/"artifactId"-"version"* as your war directory.
- If you have an error like this:
  ```
  Loading modules
     com.sigeso.sigeso
        Loading inherited module 'com.sigeso.sigeso'
           Loading inherited module 'com.googlecode.mgwt.MGWT'
              Loading inherited module 'com.googlecode.mgwt.MGWTMin'
                 Loading inherited module 'com.googlecode.mgwt.ui.UI'
                    [ERROR] The value opera was not previously defined.
                    [ERROR] Line 19: Unexpected exception while
                                     processing element 'set-property'
  ```
  Change *pom.xml*:
  Add this just before <build>:
  ```
  <repositories> <repository> <id>sonatype-snapshots</id>
  <url>https://oss.sonatype.org/content/repositories/snapshots/</url>
  </repository> </repositories>
  ```
  Change dependecy declaration to use 1.2.0-SNAPSHOT version
  ```
  <dependency> <groupId>com.googlecode.mgwt</groupId>
  <artifactId>mgwt</artifactId> <version>1.2.0-SNAPSHOT</version>
  </dependency>
  ```
  save *pom.xml*.
  Open command prompt, go to project folder and run `mvn eclipse:eclipse`.
- When running, you are asked to install the GWT Developer Plugin for your browser.
  My recommendation is to use Google Chrome, as
    o GWT Developer Plugin only supports Firefox 3.0 - 26.0.
    o Internet Explorer is recognized as Firefox.
    o There is currently no GWT Developer Plugin for Opera.
    o There is currently no GWT Developer Plugin for Safari.