

GWT - ENVIRONMENT SETUP

http://www.tutorialspoint.com/gwt/gwt_environment_setup.htm

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This tutorial will guide you on how to prepare a development environment to start your work with GWT Framework. This tutorial will also teach you how to setup JDK, Tomcat and Eclipse on your machine before you setup GWT Framework:

System Requirement

GWT requires JDK 1.6 or higher so the very first requirement is to have JDK installed in your machine.

JDK	1.6 or above.
Memory	no minimum requirement.
Disk Space	no minimum requirement.
Operating System	no minimum requirement.

Follow the given steps to setup your environment to start with GWT application development.

Step 1 - Verify Java installation on your machine

Now open console and execute the following **java** command.

OS	Task	Command
Windows	Open Command Console	c:\> java -version
Linux	Open Command Terminal	\$ java -version
Mac	Open Terminal	machine:~ joseph\$ java -version

Let's verify the output for all the operating systems:

OS	Generated Output
Windows	java version "1.6.0_21" Java™ SE Runtime Environment build1.6.0_21 – b07 Java HotSpot™ Client VM build17.0 – b17, mixedmode, sharing
Linux	java version "1.6.0_21" Java™ SE Runtime Environment build1.6.0_21 – b07 ava HotSpot™ Client VM build17.0 – b17, mixedmode, sharing
Mac	java version "1.6.0_21" Java™ SE Runtime Environment build1.6.0_21 – b07

Step 2 - Setup Java Development Kit *JDK*:

If you do not have Java installed then you can install the Java Software Development Kit *SDK* from Oracle's Java site: [Java SE Downloads](#). You will find instructions for installing JDK in downloaded files, follow the given instructions to install and configure the setup. Finally set `PATH` and `JAVA_HOME` environment variables to refer to the directory that contains java and javac, typically `java_install_dir/bin` and `java_install_dir` respectively.

Set the **JAVA_HOME** environment variable to point to the base directory location where Java is installed on your machine. For example

OS	Output
Windows	Set the environment variable <code>JAVA_HOME</code> to <code>C:\Program Files\Java\jdk1.6.0_21</code>
Linux	<code>export JAVA_HOME=/usr/local/java-current</code>
Mac	<code>export JAVA_HOME=/Library/Java/Home</code>

Append Java compiler location to System Path.

OS	Output
Windows	Append the string <code>;%JAVA_HOME%\bin</code> to the end of the system variable, <code>Path</code> .
Linux	<code>export PATH=PATH:JAVA_HOME/bin/</code>
Mac	not required

Alternatively, if you use an Integrated Development Environment *IDE* like Borland JBuilder, Eclipse, IntelliJ IDEA, or Sun ONE Studio, compile and run a simple program to confirm that the IDE knows where you installed Java, otherwise do proper setup as given document of the IDE.

Step 3 - Setup Eclipse IDE

All the examples in this tutorial have been written using Eclipse IDE. So I would suggest you should have latest version of Eclipse installed on your machine based on your operating system.

To install Eclipse IDE, download the latest Eclipse binaries from <http://www.eclipse.org/downloads/>. Once you downloaded the installation, unpack the binary distribution into a convenient location. For example in `C:\eclipse` on windows, or `/usr/local/eclipse` on Linux/Unix and finally set `PATH` variable appropriately.

Eclipse can be started by executing the following commands on windows machine, or you can simply double click on `eclipse.exe`

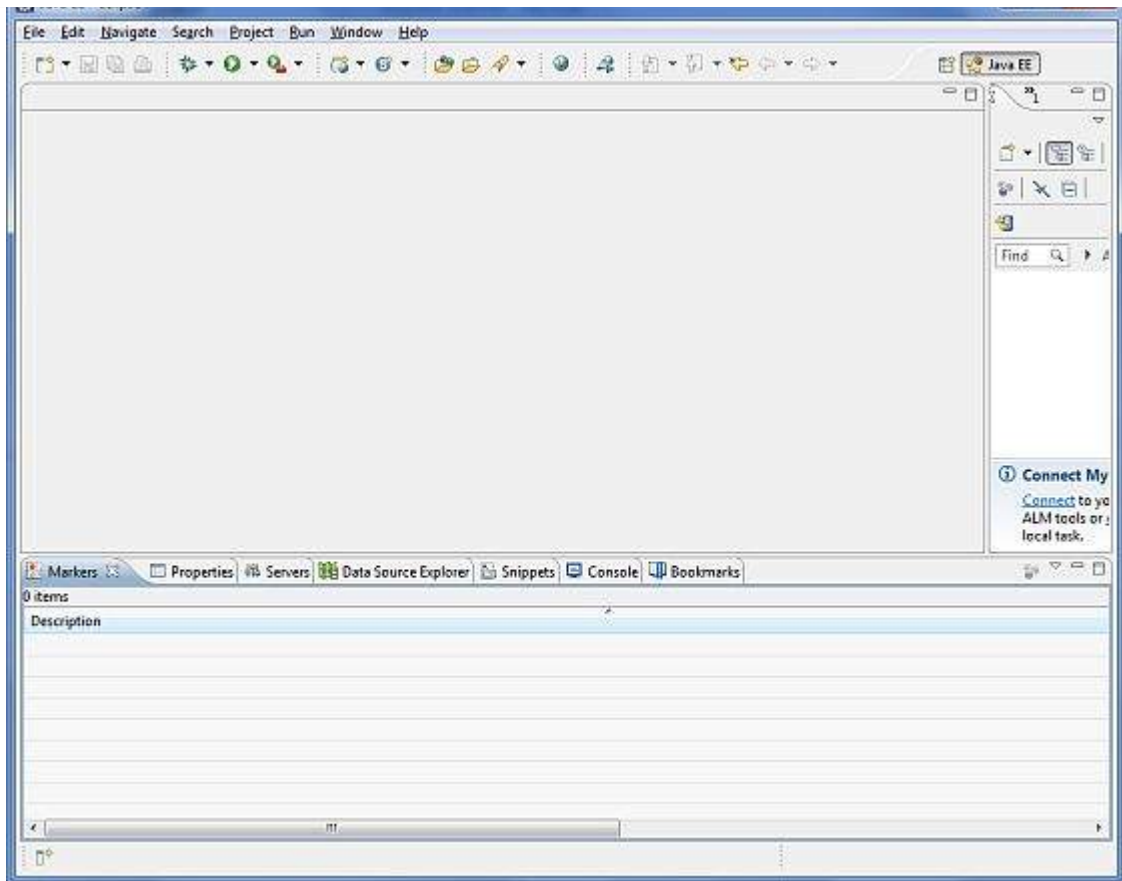
```
%C:\eclipse\eclipse.exe
```

Eclipse can be started by executing the following commands on Unix *Solaris, Linux, etc.* machine:

```
$/usr/local/eclipse/eclipse
```

After a successful startup, if everything is fine then it should display following result:

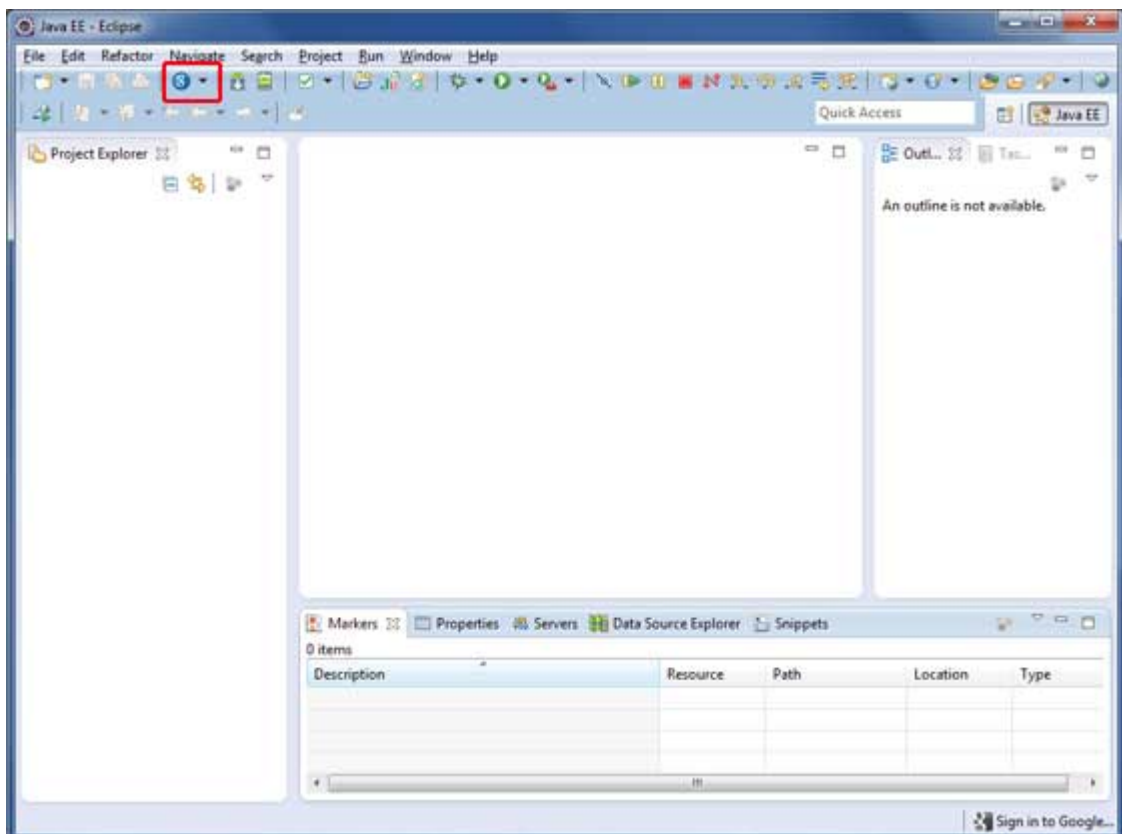




Step 4: Install GWT SDK & Plugin for Eclipse

Follow the instructions given at the link [Plugin for Eclipse incl. SDKs](#) to install GWT SDK & Plugin for Eclipse version installed on your machine.

After a successful setup for the GWT plugin, if everything is fine then it should display following screen with google icon marked with red rectangle:



Step 5: Setup Apache Tomcat:

You can download the latest version of Tomcat from <http://tomcat.apache.org/>. Once you downloaded the installation, unpack the binary distribution into a convenient location. For example in C:\apache-tomcat-6.0.33 on windows, or /usr/local/apache-tomcat-6.0.33 on Linux/Unix and set CATALINA_HOME environment variable pointing to the installation locations.

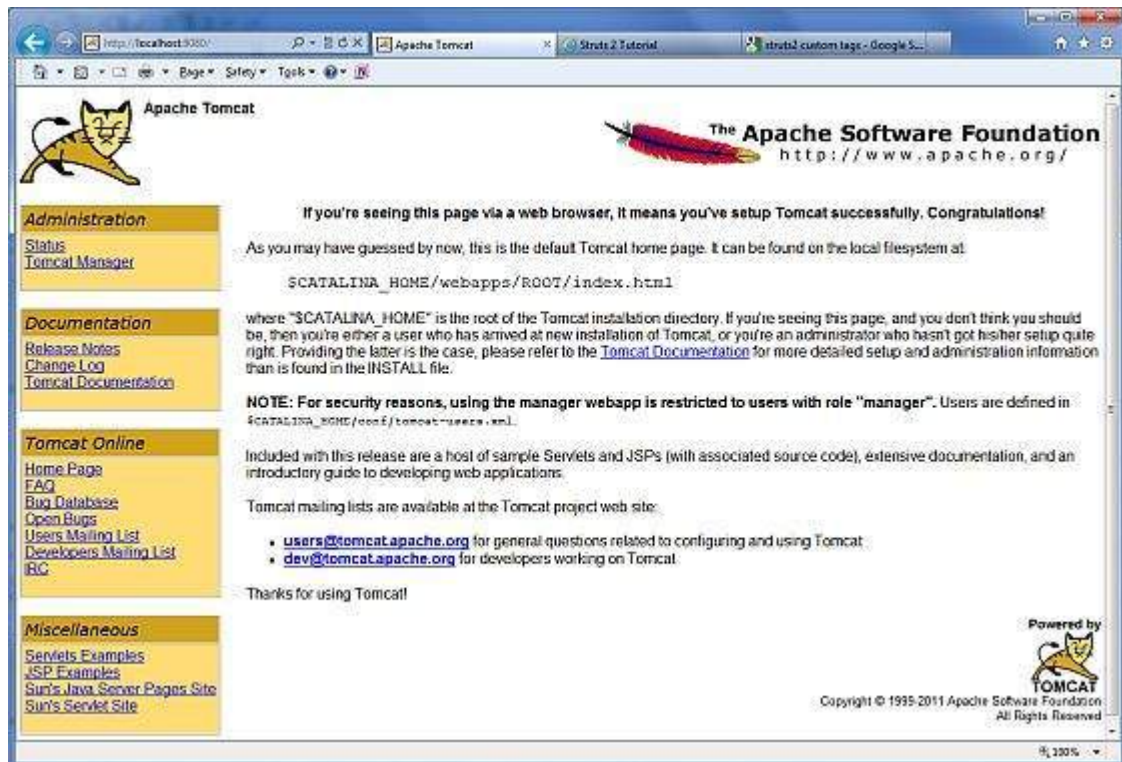
Tomcat can be started by executing the following commands on windows machine, or you can simply double click on startup.bat

```
%CATALINA_HOME%\bin\startup.bat  
  
or  
  
C:\apache-tomcat-6.0.33\bin\startup.bat
```

Tomcat can be started by executing the following commands on Unix *Solaris, Linux, etc.* machine:

```
$CATALINA_HOME/bin/startup.sh  
  
or  
  
/usr/local/apache-tomcat-6.0.33/bin/startup.sh
```

After a successful startup, the default web applications included with Tomcat will be available by visiting **<http://localhost:8080/>**. If everything is fine then it should display following result:



Further information about configuring and running Tomcat can be found in the documentation included here, as well as on the Tomcat web site: <http://tomcat.apache.org>

Tomcat can be stopped by executing the following commands on windows machine:

```
%CATALINA_HOME%\bin\shutdown  
  
or  
  
C:\apache-tomcat-5.5.29\bin\shutdown
```

Tomcat can be stopped by executing the following commands on Unix *Solaris, Linux, etc.* machine:

```
$CATALINA_HOME/bin/shutdown.sh
```

or

`/usr/local/apache-tomcat-5.5.29/bin/shutdown.sh`

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