

# GWT - ENVIRONMENT SETUP

[http://www.tutorialspoint.com/gwt/gwt\\_environment\\_setup.htm](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.

<b>JDK</b>	1.6 or above.
<b>Memory</b>	no minimum requirement.
<b>Disk Space</b>	no minimum requirement.
<b>Operating System</b>	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	<code>c:\&gt; java -version</code>
Linux	Open Command Terminal	<code>\$ java -version</code>
Mac	Open Terminal	<code>machine:~ joseph\$ java -version</code>

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

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

## 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`

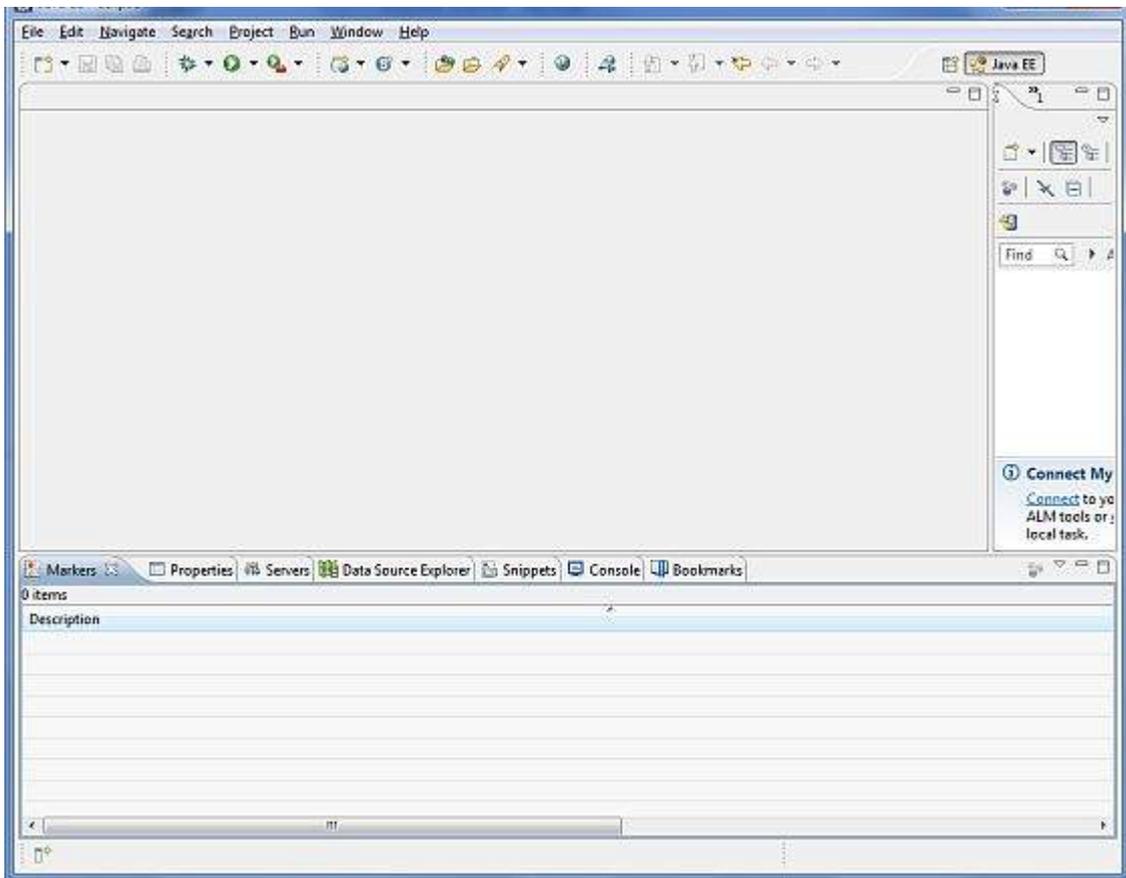
```
%C:\eclipse\eclipse.exe
```

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:

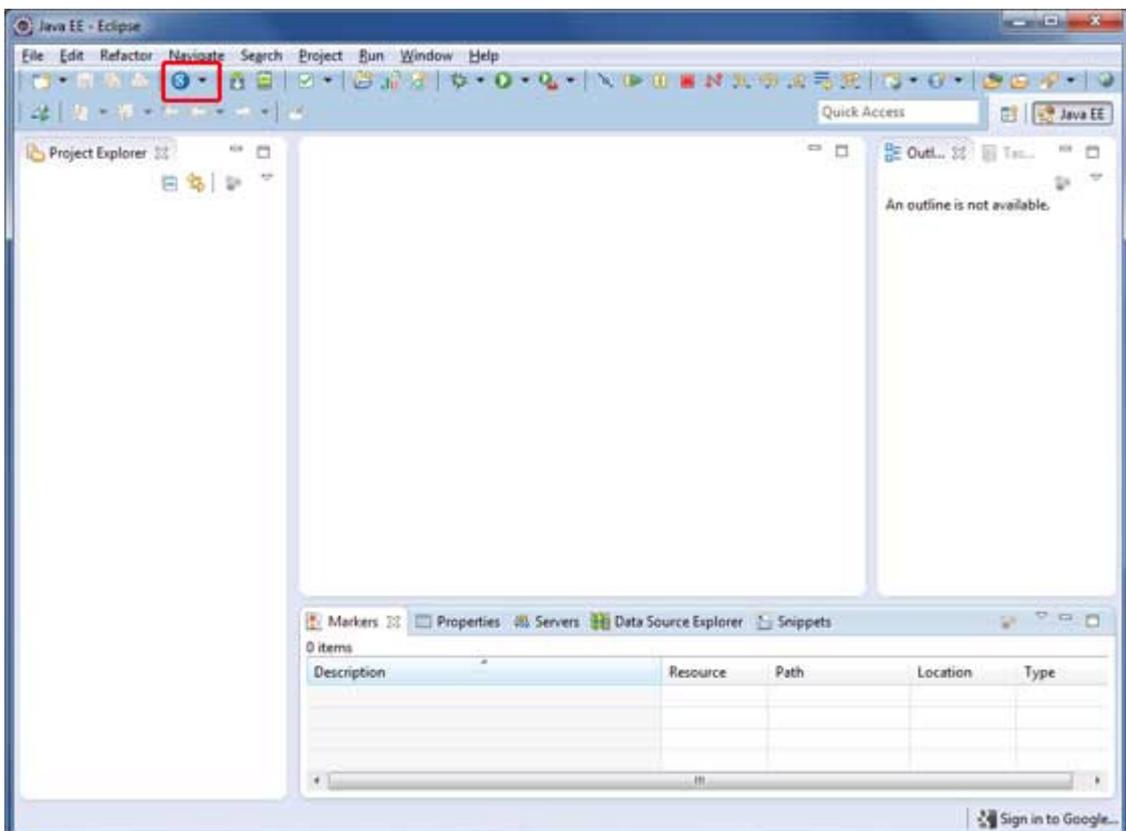




#### Step 4: Install GWT SDK & Plugin for Eclipse

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.

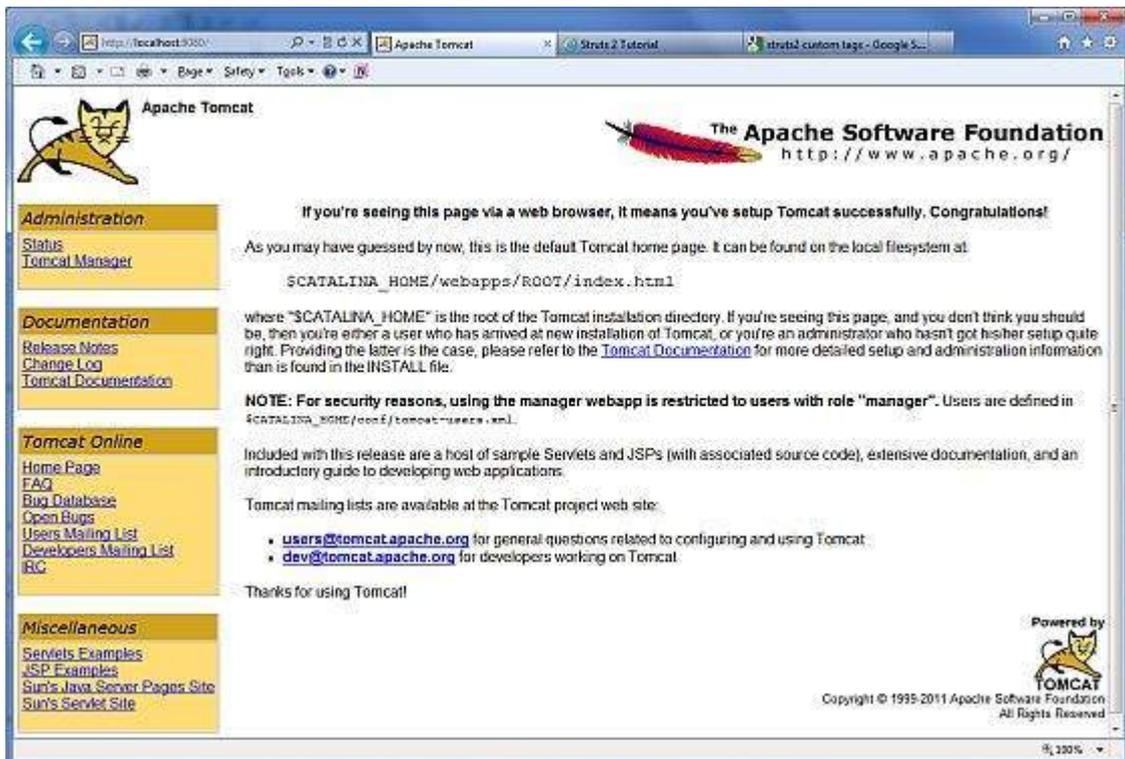
Tomcat can be started by executing the following commands on windows machine, or you can simply double click on startup.bat

```
%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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