

Web based Grid binary L O gistic R E gression (Web GLORE) Deployment

<http://dbmi-engine.ucsd.edu/webglore2/>

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1. Requirement

- 1. The operation system we use to deploy Web GLORE is Microsoft Windows. Deployment in other operation system may need some modification.
- 2. We assume that the following software are available on the server.
 - Java: Our system backbone is based on Java servlet.
 - Mysql: We use Mysql as our database.
 - Tomcat: We deploy our program on Tomcat.

2. System Initiation

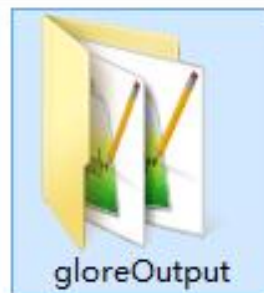
- 1. Import database.
 - a) We provide an empty database we use on <http://webglore.googlecode.com/svn/trunk/glore.sql>
 - b) Create a database named “gloredb”
 - c) Import glore.sql using “source <gloredb>”

```
mysql>  
mysql> use gloredb;  
Database changed  
mysql> source E:/gloredb.sql;  
Query OK, 0 rows affected (0.00 sec)  
  
Query OK, 0 rows affected (0.00 sec)
```

2. System Initiation (cont.)

- 2. Create file directory

Create a directory named “gloreOutput”, which will be used to store intermediate result.



2. System Initiation (cont.)

- 3. Modify configuration file (config.properties)
 - 1) root is the address we deploy Web GLORE
 - 2) dbconnection is the database Web GLORE use.
 - 3) dbusername and dbpassword are allowed to visit database
 - 4) outAddress is the file directory we store intermediate result
 - 5) createReportAddress is a server we use to calculate some statistic index (eg. AUC).

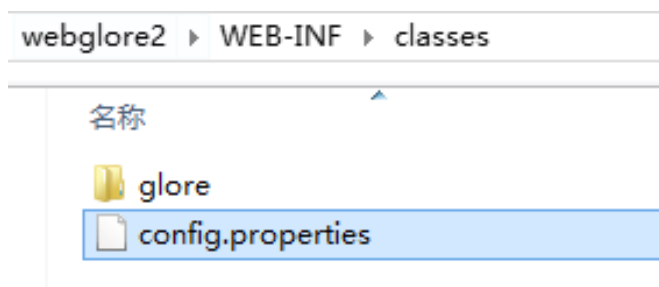


A screenshot of a text editor window titled "config.properties". The window contains six lines of configuration data, each with a line number on the left. The first line is highlighted in light blue. The text is as follows:

```
1 root=http\://localhost:8080/webglore2/
2 dbconnection=jdbc:mysql\://localhost/gloredb
3 dbusername=root
4 dbpassword=root
5 outAddress=e:/gloreOutput/
6 createReportAddress=http\://dbmi-engine.ucsd.edu/webcalibsis/
```

3. Start Tomcat Server

- 1. Download Web GLORE deploy code from <http://webglore.googlecode.com/svn/trunk/webglore> and put it in the \webapp of Tomcat server
- 2. Modify the “configure.porproperties” file in \WEB-INF\classes\
- 3. Start Tomcat server



The image shows a console window titled 'Tomcat' with the following log output:

```
lass: javax/servlet/Servlet.class
2013-5-3 11:11:33 org.apache.catalina.startup.HostConfig deployDirectory
信息: Deploying web application directory E:\apache-tomcat-7.0.34\webapps\webglo
re2
2013-5-3 11:11:33 org.apache.catalina.loader.WebappClassLoader validateJarFile
信息: validateJarFile(E:\apache-tomcat-7.0.34\webapps\webglore2\WEB-INF\lib\java
x.servlet.jar) - jar not loaded. See Servlet Spec 2.3, section 9.7.2. Offending
class: javax/servlet/Servlet.class
2013-5-3 11:11:34 org.apache.catalina.startup.HostConfig deployDirectory
信息: Deploying web application directory E:\apache-tomcat-7.0.34\webapps\webglo
re3
2013-5-3 11:11:34 org.apache.catalina.loader.WebappClassLoader validateJarFile
信息: validateJarFile(E:\apache-tomcat-7.0.34\webapps\webglore3\WEB-INF\lib\java
x.servlet.jar) - jar not loaded. See Servlet Spec 2.3, section 9.7.2. Offending
class: javax/servlet/Servlet.class
2013-5-3 11:11:34 org.apache.catalina.startup.HostConfig deployDirectory
信息: Deploying web application directory E:\apache-tomcat-7.0.34\webapps\websta
rt
2013-5-3 11:11:34 org.apache.coyote.AbstractProtocol start
信息: Starting ProtocolHandler ["http-bio-8080"]
2013-5-3 11:11:34 org.apache.coyote.AbstractProtocol start
信息: Starting ProtocolHandler ["ajp-bio-8009"]
2013-5-3 11:11:34 org.apache.catalina.startup.Catalina start
信息: Server startup in 676 ms
```

4. Set up Apache to forward to Tomcat

- Sometimes the 8080 port is hidden from outside user, and an apache server is running in 80 port. We can set up apache to forward to Tomcat.
- Refer to <http://blog.eventloud.com/2011/04/20/how-to-setup-apache-forwarding-to-tomcat-run-tomcat-on-port-80/>
- 1. uncomment the following commands in httpd.conf in apache

LoadModule proxy_module modules/mod_proxy.so

LoadModule proxy_ajp_module modules/mod_proxy_ajp.so

LoadModule proxy_balancer_module modules/mod_proxy_balancer.so

LoadModule proxy_connect_module modules/mod_proxy_connect.so

LoadModule proxy_ftp_module modules/mod_proxy_ftp.so

LoadModule proxy_http_module modules/mod_proxy_http.so

4. Set up Apache to forward to Tomcat

- 2. Then add the following to httpd.conf

ProxyPass /webglore *http://localhost:8080/webglore*

ProxyPassReverse /webglore *http://localhost:8080/webglore*

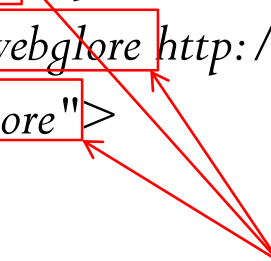
<Location " /webglore">

Order allow,deny

Allow from all

</Location>

*All visit to this directory in apache
will be forwarded to Tomcat*



- 3. Edit Tomcat configuration server.xml

<Connector port="8080" protocol="HTTP/1.1"

connectionTimeout="20000"

redirectPort="8443"

proxyPort="80"

/>

5. Code signing (Optional)

- If you modified source code in WebGlore, WebGlore.jar need to be regenerated and signed. The step is as following.
- 1. Generate WebGlore.jar that contains all the compiled “.class” files and necessary affiliated package.

```
E:\MyProgram\JavaWorkspace\WebGlore\bin>E:

E:\MyProgram\JavaWorkspace\WebGlore\bin> jar cvf ..\WebGlore.jar .\*
added manifest
adding: ca<in = 1263> <out= 1088><deflated 13%>
adding: glore/<in = 0> <out= 0><stored 0%>
```

- 2. Generate key if it is the first time you sign WebGlore.jar

```
E:\MyProgram\JavaWorkspace\WebGlore\bin>keytool -genkey -alias webglore -keystore
ca
Enter keystore password:
```

5. Code signing (Option)(cont.)

- 3. Export key to a file if needed (option)

```
E:\MyProgram\JavaWorkspace\WebGlore\bin>keytool -export -keystore ca -alias webglore -file webglore.cert  
Enter keystore password:  
Certificate stored in file <webglore.cert>
```

- 4. Sign WebGlore.jar

```
E:\MyProgram\JavaWorkspace\WebGlore>jarsigner -keystore ca WebGlore.jar webglore  
  
Enter Passphrase for keystore:  
  
Warning:  
The signer certificate will expire within six months.
```