Web based Grid binary LOgistic REgression (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.
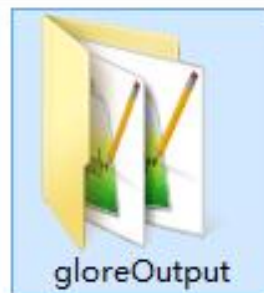
2. System Initiation (cont.)

- 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
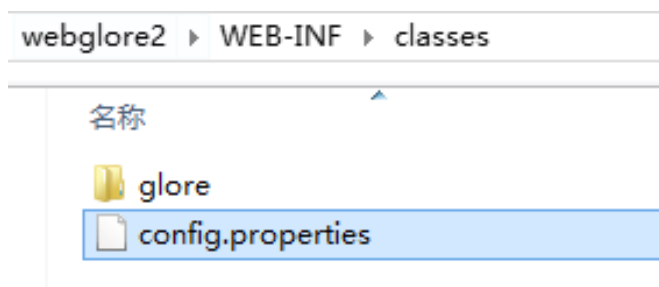 - 5) createReportAddress is a server we use to calculate some statistic index (eg. AUC).

```
config.properties
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.porperties" file in \WEB-INF\classes\

- 3. Start Tomcat server

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

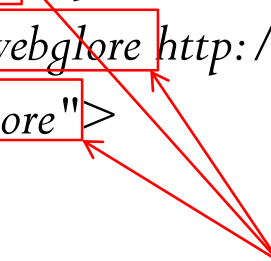 *<Location "/webglore">*

  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 afflicated 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 -keystor
e 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 webg
lore -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.
```