

# Project Summary

Following were the steps performed to complete the project: -

## Server Setup: -

1. Installed three instances of apache tomcat
2. Downloaded PCRE
  - curl --remote-name

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ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/pcre-8.39.tar.gz
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  - tar -xvzf pcre-8.39.tar.gz
  - Ran ./configure --prefix=/Users/shivendrasrivastava/Documents/Apache\_SAPFieldglass/pcre-8.39
  - ln -s /Users/shivendrasrivastava/Documents/Apache\_SAPFieldglass/pcre-8.39/usr/local/pcre
  - echo 'export PATH=/usr/local/pcre/bin:\$PATH' >> ~/.bash\_profile
  - source ~/.bash\_profile
2. Installed httpd server as a load balancer
  - Downloaded the httpd server
  - Ran the ./configure --prefix=/Users/shivendrasrivastava/Documents/Apache\_SAPFieldglass/httpd --with-pcre=/usr/local/pcre
  - Ran make && make install
3. Downloaded latest mod\_jk source
  - Ran ./configure --with-apxs=/Users/shivendrasrivastava/Documents/Apache\_SAPFieldglass/httpd/bin/apxs
  - Ran make && make install
  - Module mod\_jk.so was generated and put under httpd/modules
4. Modify httpd.conf to load module mod\_jk.so
5. Modify the server.xml for each tomcat instance to set jvmRoute to the worker number
6. Modify the server.xml to add cluster information.
7. Start and test the configuration to make sure it worked.
8. Added tribes jar for class not found exception - MessageSourceDispatch15Interceptor
9. Added multicast ip - sudo route -nv add -net 228.0.0.4 -interface en0
10. Still getting exception cannot join multicast group
11. Set privileged=true in \$CATALINAHOME/context.xml
12. Set reloadable=true in \$CATALINAHOME/context.xml
13. Added sticky session with the help of mod\_proxy.so and other dependencies.

**Code Setup: -**

1. ApplicationController handles incoming requests.
2. ApplicationController calls the service method to initiate an Async method that watches the file db.txt for changes.
3. If the file is modified then a message is constructed and then sent to the other cluster nodes.

**Issues: -**

1. Could not get the multicasting to work on my macbook.
2. Could not actually test the working of the application.
3. Could not implement programmatically removing server nodes on the fly.