# Deploying the web application

Make sure that the tomcat web server is running.

1) upload the web application archive.

Copy the war file to the edge node.

scp ElasticSearchWeb-1.0-SNAPSHOT.war root@dclvmsbigdad01:

This will result in the file ElasticSearchWeb-1.0-SNAPSHOT.war in the /root directory on the system dclvmsbigdad01.

2) Give the web application archive to esweb

Change the ownership and move the web application archive to the esweb user.

Logon to the edge node using the root userid (or the same user id as used in the scp from step 1) and give the file to esweb. Also check that the elasticsearchweb service is running.

chown esweb:esweb ElasticSearchWeb-1.0-SNAPSHOT.war

mv ElasticSearchWeb-1.0-SNAPSHOT.war /home/esweb/Tomcat-8.5/

service elasticsearchweb status

# should respond with “running”

3) Deploy the web application

Deploying the web application involves undeploying the old copy and deploying the new one. Undeploying and deploying is as simple as deleting the old war and **moving** (not copying) the new one into tomcat’s webapps directory.

Login as the esweb user

cd Tomcat-8.5/apache-tomcat-8.5.23/webapps

ls -l

# Note the presence of file “ElasticSearchWeb-1.0-SNAPSHOT.war” and directory “ElasticSearchWeb-1.0-SNAPSHOT”

rm ElasticSearchWeb-1.0-SNAPSHOT.war

# IMPORTANT:

# wait until the corresponding ElasticSearchWeb-1.0-SNAPSHOT directory has been **automatically** deleted

# by tomcat. This process should only take a few seconds.

# NB: Move **not copy** the web application archive to the webapps directory

mv /home/esweb/Tomcat-8.5/ElasticSearchWeb-1.0-SNAPSHOT.war .

Wait for tomcat to detect the presence of the war file and let it unpack it to the directory of the same name.

4) Test

Test that the web app has been deployed in a browser (<http://dclvmsbigdad01:8888/>)

5) Setup your customer’s logo

Replace the file “Customer.png” in …/webapps/ElasticSearchWeb-1.0-SNAPSHOT/resources/logos with your customer’s logo. Logo’s should be about 100 pixels in wide. Any other size will be scaled to 100 pixels wide.

If you do not wish to use a logo, simply create a 100x100 pixel white square and save it as Customer.png

# Configuring Elastic Search Web

A few configuration options are available for the elastic search web application. These are stored in a properties file which is in the file:

/etc/elasticsearch/elasticsearchweb.properties

Following is an example file:

# Properties for the thinkbig elastic search web front end.

#

#

host=kylo\_static

#port=9300

#retrieve limit=10

# This proerty identifies the name of the field used by Kylo to identify the schema containing the table in which an elastic search match is found.

#indexSchemaFieldName=kylo\_schema

# This proerty identifies the name of the field used by Kylo to identify the table within a schema in which an elastic search match is found.

#indexTableFieldName=kylo\_table

# In relation to the abvoe two properties, if an elastic search hit is found in the hive table "X.Y", then the elastic search results will contain the following

# two fields with the values shown:

# kylo\_schema=X

# kylo\_table=Y

The following table describes the properties and their meanings:

|  |  |  |
| --- | --- | --- |
| Property | Default | Description |
| host | localhost | The host name of the elastic search server. This is the name of the host that is running the elastic search engine – not the elastic search web server’s host name. |
| port | 9300 | The port of the Java API on the elastic search engine. |
| retrieveLimit | 10 | The number of records to retrieve per request from the elastic search engine when retrieving results. |
| indexSchemaFieldName | kylo\_schema | The name of the field that contains the schema name containing the matched data. |
| indexTableFieldName | Kylo-table | The name of the field that contains the table name containing the matched data. |
|  |  |  |

# Installing Tomcat

Create a user and group for Tomcat

groupadd esweb

useradd -c "elastic search web user" -g esweb -m -p pass esweb

NB: Because we have specified a literal string (“pass”) as the password as opposed to something that is the output of crypt(3) then this will effectively be a “no login” user. We can still su to it which is required for starting tomcat as the user esweb.

Switch to (or login as) the new user download, configure the ports and start tomcat.

tar xvfz apache-tomcat-8.5.23.tar.gz

tar xvfz apache-tomcat-8.5.23-deployer.tar.gz

cd apache-tomcat-8.5.23

CATALINA\_HOME=`pwd`

export CATALINA\_HOME

cd conf

vi server.xml

Look for the lines that look like the following (they will be in separate parts of the file)

<!-- Define an AJP 1.3 Connector on port 8009 -->

<Connector port="8009" protocol="AJP/1.3" redirectPort="8443" />

and

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

connectionTimeout="20000"

redirectPort="8443" />

Change the ports so that 8009 becomes 8889 and 8080 becomes 8888. You may use any ports that are available and greater than 1024. That is, it should now look like this:

<!-- Define an AJP 1.3 Connector on port 8009 -->

<Connector port="8889" protocol="AJP/1.3" redirectPort="8443" />

and

<Connector port="8888" protocol="HTTP/1.1"

connectionTimeout="20000"

redirectPort="8443" />

Remember, these two blocks of code will most likely be in different parts of the file.

NB: It may also be necessary to change references to ports 8443 (suggest: 8843) and 8005 (suggest: 8885)

Always check to see if the referenced ports are available before setting them.

cd $CATALINA\_HOME

bin/startup.sh

Wait for tomcat to start then try connecting to the server at <http://servername:8888/>

# Starting tomcat as a service

Following is sysVinit script that should start elasticsearchweb when the system starts. Place this script in /etc/init.d

#!/bin/bash

# chkconfig: 2345 80 20

# description: Elastic search web application

# processname: ElasticsearchWeb

#

### BEGIN INIT INFO

# Provides: ElasticsearchWeb

# Required-Start: $network $Elasticsearch

# Required-Stop: $network $named

# Default-Start: 2 3 4 5

# Default-Stop: 0 1 6

# Short-Description: This service manages the elasticsearch web daemon

# Description: The elastic search web application allows end users to perform simple google like queries of the data lake holdings.

### END INIT INFO

CATALINA\_HOME="/home/esweb/Tomcat-8.5/apache-tomcat-8.5.23"

export CATALINA\_HOME

dir=$CATALINA\_HOME/bin

RUN\_AS\_USER=esweb

case "$1" in

start)

cd "$dir"

su - $RUN\_AS\_USER -c "$dir/startup.sh"

;;

stop)

cd "$dir"

su - $RUN\_AS\_USER -c "$dir/shutdown.sh"

;;

restart)

su - $RUN\_AS\_USER -c "$dir/shutdown.sh"

sleep 2

su - $RUN\_AS\_USER -c "$dir/startup.sh"

;;

status)

curl --silent http://localhost:8888/ > /dev/null

STAT=$?

if [ $STAT -eq 0 ]

then

echo "Running"

else

echo "not running"

fi

;;

\*)

echo "Usage: $0 {start|stop|restart|status}"

exit 1

;;

esac

exit 0