# SHRINE 4.1.0 Chapter 5.2 - Setting up Tomcat Environment File

When starting Tomcat, you will need to configure some environment variables to accommodate the files that will be loaded when Tomcat and SHRINE start up. This can include the ontology that SHRINE uses for queries, as well as the Adapter Mapping file that SHRINE uses to map to the ontology. To avoid issues with resourcing and potential memory leaks, we need to ensure that Tomcat has enough resources to operate.

Add CATALINA_OPTS to /opt/shrine/tomcat/bin/setenv.sh . Set -Xmx to use all but one gigabyte of your system; for example give it 3GB on a 4GB system.

```
# Set Tomcat options
export CATALINA_OPTS="$CATALINA_OPTS -server -Xms1024m -Xmx3072m -Duser.timezone=America/New_York"
```

No matter which option you choose to install the JDK, be sure that your tomcat environment use the correct "JAVA_HOME" and "JRE_HOME" values. Set JAVA_HOME and JRE_HOME in /opt/shrine/tomcat/bin/setenv.sh :

**setenv.sh**

```
...
export JAVA_HOME=/path/to/where/your/jdk/was/installed
export JRE_HOME=$JAVA_HOME
```