XWiki - Install

This is to create a installation of XWiki on a installation of Rocky Linux already installed

Configuration

Linux configuration

Disable selinux

Run the following or you can modify the file here, "/etc/sysconfig/selinux". If you modify the file make sure you still run the "setenforce 0" or just simply reboot after modification.

```
setenforce 0
sed -i 's/^SELINUX=.*/SELINUX=disabled/g' /etc/selinux/config
```

Disable firewall

```
systemctl disable firewalld.service
```

Epel Release

```
dnf install epel-release -y
```

After Epel install

```
dnf upgrade -y
```

Server Software Configuration

Install MySQL on the server

Install Java

```
dnf install java-11-openjdk -y
dnf install java-11-openjdk-devel -y
```

Verify the Viserion after install

```
java -version
```

Results

```
openjdk version "11.0.24" 2024-07-16 LTS
OpenJDK Runtime Environment (Red_Hat-11.0.24.0.8-2) (build 11.0.24+8-LTS)
OpenJDK 64-Bit Server VM (Red_Hat-11.0.24.0.8-2) (build 11.0.24+8-LTS, mixed mode, sharing)
```

Install MariaDB

Install the server

```
sudo dnf install mariadb-server -y
```

Modify the my.cnf server file

```
sudo vi /etc/my.cnf.d/mariadb-server.cnf
```

Make modifications the file and append under the current settings in the [mysql] section

```
#Custom Entries
performance_schema = ON
tmpdir = /run/mariadb
thread_cache_size = 4
table_open_cache = 16384
table_definition_cache = 8384
sql_mode = ERROR_FOR_DIVISION_BY_ZERO,NO_AUTO_CREATE_USER,NO_ENGINE_SUBSTITUTION

query_cache_type = 0
query_cache_size = 0
query_cache_limit = 128M
query_cache_strip_comments = 1

tmp_table_size = 512M
max_heap_table_size = 512M
```

```
max_connections = 512

max_allowed_packet = 24M

sort_buffer_size = 24M

join_buffer_size = 48M


innodb_buffer_pool_size = 4G

innodb_buffer_pool_instances = 4

innodb_use_native_aio = 1

innodb_flush_log_at_trx_commit = 0

innodb_file_per_table

innodb_log_file_size = 512M


#Optional config if using transaction log.

log_bin = /var/log/mariadb/mariadb.log

expire_logs_days = 2
```

Reload for changes

```
sudo systemctl daemon-reload
```

Start and enable on boot

```
systemctl enable --now mariadb.service
```

Add the XWiki user to access the database

```
mysql

create database xwiki default character set utf8mb4 collate utf8mb4_bin;

grant all privileges on xwiki.* to 'xwiki'@'localhost' identified by 'xwiki_password';

grant all privileges on xwiki.* to 'xwiki'@'%' identified by 'xwiki_password';

FLUSH PRIVILEGES;

exit;
```

Tomcat Configuration

Verify which version you want to install, we will be using "v9.0.63"

```
http://dlcdn.apache.org/tomcat/tomcat-9
```

Create folder for Tomcat

```
sudo mkdir /opt/tomcat
sudo cd /opt/tomcat
```

Replace the version within the following link

```
wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.93/bin/apache-tomcat-9.0.93.tar.gz
```

Extract the file you downloaded in you current folder

```
sudo tar xvf apache-tomcat-*.tar.gz -C /opt/tomcat --strip-components=1
```

Create the tomcat user

```
sudo groupadd tomcat
sudo useradd -s /bin/false -g tomcat -d /opt/tomcat tomcat
```

Change the permissions on the tomcat folder

```
sudo chown -R tomcat: /opt/tomcat
```

Configuring Systemd Service

```
sudo vi /etc/systemd/system/tomcat.service
```

Add the following content to the file

```
[Unit]
Description=Tomcat 9 servlet container
After=network.target

[Service]
Type=forking

User=tomcat
Group=tomcat

Environment="JAVA_HOME=/usr/lib/jvm/jre"
Environment="CATALINA_PID=/opt/tomcat/temp/tomcat.pid"
Environment="CATALINA_HOME=/opt/tomcat"
Environment="CATALINA_BASE=/opt/tomcat"
```

```
Environment="CATALINA_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC"

Environment="JAVA_OPTS=-Djava.awt.headless=true -Djava.security.egd=file:/dev/./urandom"


ExecStart=/opt/tomcat/bin/startup.sh

ExecStop=/opt/tomcat/bin/shutdown.sh


[Install]

WantedBy=multi-user.target
```

Enable and start the Tomcat service:

```
sudo systemctl daemon-reload
sudo systemctl enable tomcat
sudo systemctl start tomcat
```

Adjusting the Firewall and you did not run the firewall disabling command above, allow traffic to Tomcat's default port 8080

```
sudo firewall-cmd --permanent --zone=public --add-port=8080/tcp
sudo firewall-cmd --reload
```

Securing Tomcat

Edit the `web.xml` file to disable directory listing and add security constraints to the manager and host-manager applications. It's also advisable to change the default shutdown port and command in `server.xml`.

Add access from another host if needed

```
vi /opt/tomcat/webapps/manager/META-INF/context.xml
```

Add the IP or IPs you are accessing from to allow access to the main tomcat page. you will need to change this entry from this "allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" />" to something like this

```
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1|192.168.253.100|192.168.252.2" />
```

Configure XWiki

Download the war file

```
cd /opt/tomcat/webapps
wget -O wiki.war https://nexus.xwiki.org/nexus/content/groups/public/org/xwiki/platform/xwiki-platform-
distribution-war/15.10.11/xwiki-platform-distribution-war-15.10.11.war
systemctl restart tomcat
```

Reverse Proxy

Change for reverse proxy settings

```
sudo vi /opt/tomcat/webapps/wiki/WEB-INF/xwiki.cfg
```

Change the following in the file

To point to a specific domain

```
xwiki.home=http://wiki.sflservicesllc.com
```

Change to use https

```
xwiki.url.protocol=https
```

MySQL Setup

After the Tomcat service is restarted move to the XWiki's WEB-INF/lib directory and download the MySQL JDBC Driver JAR:

```
su - tomcat
cd /opt/tomcat/webapps/wiki/WEB-INF/lib/
wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.49/mysql-connector-java-5.1.49.jar
chown tomcat:tomcat mysql-connector-java-5.1.49.jar
```

MariaDB Setup

After the Tomcat service is restarted move to the XWiki's WEB-INF/lib directory and download the MariaDB JDBC Driver JAR:

```
su - tomcat
cd /opt/tomcat/webapps/wiki/WEB-INF/lib/
wget https://dlm.mariadb.com/3852266/Connectors/java/connector-java-3.4.1/mariadb-java-client-3.4.1.jar
chown tomcat:tomcat mariadb-java-client-3.4.1.jar
```

Open the WEB-INF/hibernate.cfg.xml file and configure XWiki to use MySQL:

```
vi /opt/tomcat/webapps/wiki/WEB-INF/hibernate.cfg.xml
```

Comment out the default hsqldb database section and uncomment and edit the MySQL database section as shown below:

```
<!-- Configuration for the default database.
Comment out this section and uncomment other sections below if you want to use another database.
Note that the database tables will be created automatically if they don't already exist.

If you want the main wiki database to be different than "xwiki" (or the default schema for schema based engines)
you will also have to set the property xwiki.db in xwiki.cfg file
-->
<!--
<property name="connection.url">jdbc:hsqldb:file:${environment.permanentDirectory}/database/xwiki_db;shutdown=true</property>
<property name="connection.username">sa</property>
<property name="connection.password"></property>
<property name="connection.driver_class">org.hsqldb.jdbcDriver</property>
<property name="dialect">org.hibernate.dialect.HSQLDialect</property>

<property name="hibernate.connection.charSet">UTF-8</property>
<property name="hibernate.connection.useUnicode">true</property>
<property name="hibernate.connection.characterEncoding">utf8</property>

<mapping resource="xwiki.hbm.xml"/>
<mapping resource="feeds.hbm.xml"/>
<mapping resource="activitystream.hbm.xml"/>
<mapping resource="instance.hbm.xml"/>
<mapping resource="notification-filter-preferences.hbm.xml"/>
<mapping resource="mailsender.hbm.xml"/>
-->
```

Uncomment wither the MySQL Section or the MariaDB section and change the password

```
<property name="hibernate.connection.username">xwiki</property>
<property name="hibernate.connection.password">xwiki_password</property>
```

Restart the Tomcat service

```
sudo systemctl restart tomcat
```

Accessing Tomcat

Open your web browser and navigate to the following below. You should see the default Tomcat landing page.

```
http://[your_server_ip]:8080/wiki
```

https://linuxhostsupport.com/blog/how-to-install-xwiki-on-centos-7/

https://reintech.io/blog/installing-configuring-tomcat-rocky-linux-9