Apache ActiveMQ
https://activemq.apache.org/index.html

Installasi :
1. Buka link berikut
https://activemq.apache.org/getting-started#OnUnix:

2. Pre installasi
sebelum install ActiveMQ, langkah awal yang harus diperhatikan adalah menginstall java dan maven .

Langkah install java
```
$ sudo apt update
$ java -version
$ sudo apt install default-jre
$ java -version

Output
openjdk version "10.0.1" 2018-04-17
OpenJDK Runtime Environment (build 10.0.1+10-Ubuntu-3ubuntu1)
OpenJDK 64-Bit Server VM (build 10.0.1+10-Ubuntu-3ubuntu1, mixed mode)

$ sudo apt install default-jdk
$ javac -version

Output
javac 10.0.1

$ sudo nano /etc/environment
JAVA_HOME="/usr/lib/jvm/java-11-openjdk-amd64/bin/"

$ source /etc/environment
$ echo $JAVA_HOME

Output
/usr/lib/jvm/java-11-openjdk-amd64/bin/
```

Langkah install maven dari package
```
$ sudo apt update
$ sudo apt install maven
$ mvn -version
$ sudo nano /etc/profile.d/maven.sh
export JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64/bin
export M2_HOME=/usr/share/maven
export MAVEN_HOME=/usr/share/maven
export PATH=${M2_HOME}/bin:${PATH}

$ sudo chmod +x /etc/profile.d/maven.sh
$ source /etc/profile.d/maven.sh
$ mvn -version
```

```
Output
Apache Maven 3.5.2
Maven home: /usr/share/maven
Java version: 10.0.2, vendor: Oracle Corporation
Java home: /usr/lib/jvm/java-11-openjdk-amd64
Default locale: en_US, platform encoding: ISO-8859-1
OS name: "linux", version: "4.15.0-36-generic", arch: "amd64", family:
"unix"
```

Langkah install maven dari source

download maven melalui link berikut

https://maven.apache.org/download.cgi?Preferred=ftp://mirror.reverse.net/pub/apache/

```
$ sudo tar xf /tmp/apache-maven-*.tar.gz -C /opt
$ sudo ln -s /opt/apache-maven-3.6.0 /opt/maven
$ sudo nano /etc/profile.d/maven.sh
export JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64/bin
export M2_HOME=/opt/maven
export MAVEN_HOME=/opt/maven
export PATH=${M2_HOME}/bin:${PATH}

$ sudo chmod +x /etc/profile.d/maven.sh
$ source /etc/profile.d/maven.sh
$ mvn -version
```

3. Install ActiveMq

   download ActiveMq melalui link berikut

   https://activemq.apache.org/components/classic/download/

   sedangkan rilis versi sebelumnya dapat dilihat pada link berikut

   https://repository.apache.org/content/repositories/snapshots/org/apache/activemq/apache-activemq/

   ```
   # tar zxvf activemq-x.x.x-src.tar.gz
   # cd [activemq_install_dir]/bin
   # chmod 755 activemq
   ```

   Gunakan perintah ini untuk menjalankan *daemon* proses activemq
   ```
   # ./activemq start
   ```

   Gunakan perintah ini untuk menjalankan *foreground* proses activemq
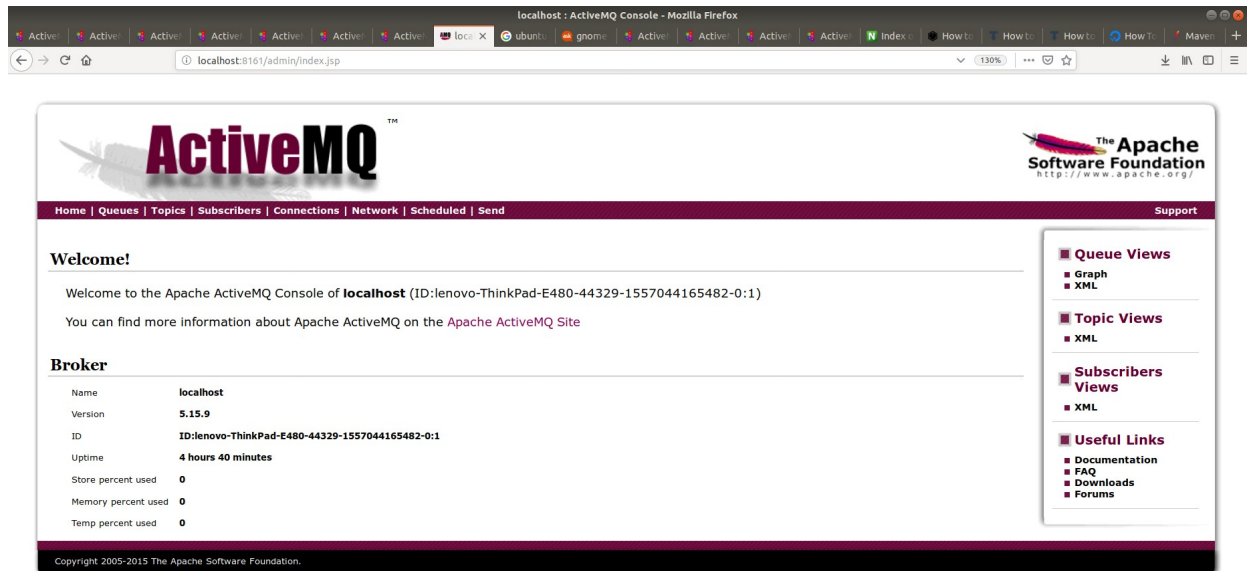   ```
   # ./activemq console
   ```

   Gunakan perintah ini untuk memberhentikan activemq
   ```
   # ./activemq stop
   ```

4. Pengujian
   Buka browser, kemudian ketikkan alamat berikut
   http://localhost:8161/admin/



   Login: admin
   Password: admin

5. Pengecekan port
```
netstat -nl|grep 61616
tcp6   0   0 :::61616   :::*   LISTEN
```