**Step 1 — Install JDK**

Artemis requires Java 8 or later versions to work. We can check and verify that Java is installed with the following command.

$ java -version

If java is not installed run below commands to install Java.

$ sudo apt-get update$ sudo apt-get install default-jdk -y

After installation check, if java is installed correctly by executing below command:

$ java -version

https://miro.medium.com/max/60/1*mSzsixvFBtQAwfVdRf-cbw.png?q=20

<img class="s t u hv ai" src="https://miro.medium.com/max/1196/1\*mSzsixvFBtQAwfVdRf-cbw.png" width="598" height="38" srcSet="https://miro.medium.com/max/552/1\*mSzsixvFBtQAwfVdRf-cbw.png 276w, https://miro.medium.com/max/1104/1\*mSzsixvFBtQAwfVdRf-cbw.png 552w, https://miro.medium.com/max/1196/1\*mSzsixvFBtQAwfVdRf-cbw.png 598w" sizes="598px" role="presentation"/>

If java is installed, the output should look similar to above depending upon what is the latest version of java at that time.

**Step 2 — Creating an ‘Artemis’ User and Group**

We should not run Artemis under the root user for security reasons. Let’s create a group **artemis** and add a user **artemis** to it. Additionally, we are going to install Artemis under ***/opt/artemis*** directory which will be artemis user home directory:

$ sudo groupadd artemis$ sudo useradd -s /bin/false -g artemis -d /opt/artemis artemis

**Step 3 — Download and Install ‘Artemis’**

Now we need to download and install Artemis. We can download the Artemis archive from its official download website or mirrors. Download and Install **Artemis 2.13.0** archive file using the following commands. You can also visit the [**official download page**](https://activemq.apache.org/components/artemis/download/past_releases) to download the latest available version.

We are going to install Artemis to ***/opt*** directory. So we will download the **Artemis 2.13.0** package to that location.

Change directory to ***/opt***and download **Artemis 2.13.0** to that directory.

$ cd /opt$ sudo wget <https://archive.apache.org/dist/activemq/activemq-artemis/2.13.0/apache-artemis-2.13.0-bin.tar.gz>

Extract the tar package and rename the extracted directory to **artemis**

$ sudo tar -xvzf apache-artemis-2.13.0-bin.tar.gz$ sudo mv apache-artemis-2.13.0 artemis

**Step 4 — Change Permission and Ownership of the ‘*Artemis’* Home Directory**

Next, we will modify ownership and permission of ***/opt/artemis*** directory. We will also give executed permission to ***opt/artemis/bin/*** directory.

sudo chown -R artemis: artemis

sudo chmod o+x /opt/artemis/bin/

**Step 5 — Creating an Artemis Broker Instance**

An Artemis broker instance is the directory containing all the configuration and runtime data, such as logs and data files, associated with a broker process. It is recommended that you **do *not*** create the instance directory under Artemis home directory i.e. **/opt/artemis**. This separation is encouraged so that we can more easily upgrade when the next version of ActiveMQ Artemis is released.

Let's create a broker instance under ***/var/lib/*** directory. To create an instance run the following commands in your command line shell:

$ cd /var/lib$ sudo /opt/artemis/bin/artemis create artemisbroker

Once the above command is executed the user will be prompted to enter details fo default **user** and **password** as shown below. Provide the necessary details and continue.

Allow-anonymus - N

A broker instance directory will contain the following subdirectories:

* bin: holds execution scripts associated with this instance.
* etc: hold the instance configuration files
* data: holds the data files used for storing persistent messages
* log: holds rotating log files
* tmp: holds temporary files that are safe to delete between broker runs

As shown in the snapshot above, the broker instance can be started with the below command:

$ sudo /var/lib/artemisbroker/bin/artemis run

You can now start the broker by executing:

"/var/lib/artemisbroker/bin/artemis" run

Or you can run the broker in the background using:

"/var/lib/artemisbroker/bin/artemis-service" start

Once the broker instance starts we can access the admin console at [***http://localhost:8161/console***](http://localhst:8161/console.)***.***

However, the console is bound to ***localhost*** and cannot be accessed remotely!!

**Step 6 — Making Artemis Admin Console Remotely Accessible**

To be able to access Artemis admin console remotely, we have to edit the ***bootstrap.xml*** and ***jolokia-access.xml*** under ***/var/lib/artemisbroker/etc/*** directory.

Open **boostrap.xml**

$ sudo nano /var/lib/artemisbroker/etc/bootstrap.xml

By default, Artemis admin console is bound to localhost only. To allow remote access edit the **<web></web>** tag and change the attribute value of ***bind*** to ***http://0.0.0.0:8161*** *as shown below:*

Save and exit.

We also need to enable ***CORS***, so edit ***jolokia-access.xml***

$ sudo nano /var/lib/artemisbroker/etc/jolokia-access.xml

Edit the **<allow-origin></allow-origin>** tag as shown below:

Save and exit.

We can now access Artemis admin console remotely once it starts.

**Step 7— Creating a SystemD Service File for Artemis**

To install Artemis as a system service we will create a file called **artemis.service** in the ***/etc/systemd/system*** directory.

$ sudo nano /etc/systemd/system/artemis.service

Add the following to **artemis.service** file

[Unit]

Description=Apache ActiveMQ Artemis  
After=network.target

[Service]

Type=forking  
User=artemis  
Group=artemis

ExecStart=/var/lib/artemisbroker/bin/artemis-service start  
ExecStop=/var/lib/artemisbroker/bin/artemis-service stop

UMask=0007  
RestartSec=10  
Restart=always

[Install]

WantedBy=multi-user.target

Save and exit. We also need to make **artemis** user owner of the **artemisbroker** directory.

$ sudo chown artemis: /var/lib/artemisbroker

Restart **systemctl daemon**.

$ sudo systemctl daemon-reload

To start the **artemis** service.

$ sudo systemctl start artemis

To monitor the Artemis log file.

$ sudo tail -f /var/lib/artemisbroker/log/artemis.log

If there is no error, you will get similar to below output:

To enableArtemisservice on system boot:

$ sudo systemctl enable artemis

We can now access Artemis admin console at:

***http://<public-ip>:8161/console/***

Enter the user and password as configured in **Step 5**.

*This concludes our tutorial on setting Apache ActiveMQ Artemis on Ubuntu 18.04.*

*Please feel free to comment. Thanks.*

Important Links:

<https://activemq.apache.org/components/artemis/>

<https://activemq.apache.org/components/artemis/documentation/>