

Apache ActiveMQ Artemis (a JMS Provider)

1. Downloading the file

- Search in the browser like “apache activemq artemis” and go to download section Or, <https://activemq.apache.org/components/artemis/download/>.
- Download the latest version, tar.gz, (**2.12.0 released on 29 Apr,2020**).
- Unzip it (We can unzip it anywhere in the directory).
- It will have following folders and some files:
 1. **bin, examples, lib, schema, web, notice** etc.
 2. But now, for next step, **bin** is the important folder.
 3. Because, this folder will be used for creating our **broker**.
 4. A broker will be our **JMS Provider** or simply Server.

2. Creating the broker i.e JMS Provider

- Through terminal, go inside the **bin** folder.
Make sure , you are inside of that bin folder.
- Command to create the broker :

`/apache-artemis-2.12.0/bin$./artemis create /path/broker_name`

eg. `/bin$./artemis create /Users/Rahul/Documents/myBroker`
- If we omit the path, it will be created inside of that bin (and its ok).
`/bin$./artemis create myBroker`
- It will create the ActiveMQ Artemis instance ie broker, and it will ask to provide default **username** and **password** for it. (keep remember these things)
- It will ask for ‘allow anonymous access’, you can choose among Y,N,True, False. (Choose Y, if there is no security issue)
- **We can create multiple brokers and delete them.**
- After all of the this, a **folder** will be created (at the specified location ie path or inside of that bin, if you have omitted the path) having the **name** of the broker i.e. **myBroker** (say).
 - It will have folders like **bin, data, etc, lib, lock, log, tmp**.
 - Again **bin** is the important folder here.

3. Starting or Running the broker

- Navigate to the bin folder of the created broker ie myBroker
- Make sure , you are inside of it.
- Run the command as :
`myBroker/bin$./artemis run`
- Following thing should happen.



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Apache ActiveMQ Artemis 2.6.2
19-02-13 12:01:34,007 INFO [org.apache.activemq.artemis.integration.bootstrap] AMQ101000: Starting ActiveMQ Artemis Server
19-02-13 12:01:34,112 INFO [org.apache.activemq.artemis.core.server] AMQ221000: Live Message Broker is starting with configuration Broker Configuration (clustered=false,journalDirectory=data/journal,bindingsDirectory=data/bindings,largeMessagesDirectory=large-messages,pagingDirectory=data/paging)
19-02-13 12:01:34,156 INFO [org.apache.activemq.artemis.core.server] AMQ221013: Using NIO Journal
19-02-13 12:01:34,237 INFO [org.apache.activemq.artemis.core.server] AMQ221057: Global Max Size is being adjusted to 1/2 of the JVM max size (-Xmx). being defined as 1,073,741,8
19-02-13 12:01:34,285 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-server]. Adding protocol support for: CORE
19-02-13 12:01:34,286 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-amqp-protocol]. Adding protocol support for: AMQP
19-02-13 12:01:34,288 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-hornetq-protocol]. Adding protocol support for: HORNETQ
19-02-13 12:01:34,290 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-mqtt-protocol]. Adding protocol support for: MQTT
19-02-13 12:01:34,290 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-openwire-protocol]. Adding protocol support for: OPENWIRE
19-02-13 12:01:34,291 INFO [org.apache.activemq.artemis.core.server] AMQ221043: Protocol module found: [artemis-stomp-protocol]. Adding protocol support for: STOMP
19-02-13 12:01:34,389 INFO [org.apache.activemq.artemis.core.server] AMQ221034: Waiting indefinitely to obtain live lock
19-02-13 12:01:34,390 INFO [org.apache.activemq.artemis.core.server] AMQ221035: Live Server Obtained live lock
19-02-13 12:01:34,700 INFO [org.apache.activemq.artemis.core.server] AMQ221003: Deploying queue ExpiryQueue on address DLQ
19-02-13 12:01:34,839 INFO [org.apache.activemq.artemis.core.server] AMQ221003: Deploying queue ExpiryQueue on address ExpiryQueue
19-02-13 12:01:35,339 INFO [org.apache.activemq.artemis.core.server] AMQ221020: Started KQUEUE Acceptor at 0.0.0.0:5445 for protocols [CORE,MQTT,AMQP,STOMP,HORNETQ,OPENWIRE]
19-02-13 12:01:35,342 INFO [org.apache.activemq.artemis.core.server] AMQ221020: Started KQUEUE Acceptor at 0.0.0.0:5445 for protocols [HORNETQ,STOMP]
19-02-13 12:01:35,344 INFO [org.apache.activemq.artemis.core.server] AMQ221020: Started KQUEUE Acceptor at 0.0.0.0:5672 for protocols [AMQP]
19-02-13 12:01:35,346 INFO [org.apache.activemq.artemis.core.server] AMQ221020: Started KQUEUE Acceptor at 0.0.0.0:5672 for protocols [MQTT]
19-02-13 12:01:35,348 INFO [org.apache.activemq.artemis.core.server] AMQ221020: Started KQUEUE Acceptor at 0.0.0.0:5613 for protocols [STOMP]
19-02-13 12:01:35,349 INFO [org.apache.activemq.artemis.core.server] AMQ221007: Server is now live
19-02-13 12:01:35,349 INFO [org.apache.activemq.artemis.core.server] AMQ221001: Apache ActiveMQ Artemis Message Broker version 2.6.2 [0.0.0.0, nodeId=01d7427b-2f59-11e9-bdcd-aac55d1cf1]
19-02-13 12:01:35,937 INFO [org.apache.activemq.hawtio.branding.PluginContextListener] Initialized activemq-branding plugin
19-02-13 12:01:36,006 INFO [org.apache.activemq.hawtio.plugin.PluginContextListener] Initialized artemis-plugin plugin
19-02-13 12:01:37,497 INFO [io.hawt.hawtioContextListener] Initialising hawtio services
19-02-13 12:01:37,545 INFO [io.hawt.system.ConfigManager] Configuration will be discovered via system properties
19-02-13 12:01:37,562 INFO [io.hawt.jmx.JmxTreeWatcher] Welcome to hawtio 1.5.5 : http://hawt.io/ : Don't cha wish your console was hawt like me? ;-)
19-02-13 12:01:37,575 INFO [io.hawt.jmx.UploadManager] Using file upload directory: /Users/bharaththippireddy/Documents/mybroker/tmp/uploads
19-02-13 12:01:37,650 INFO [io.hawt.web.AuthenticationFilter] Starting hawtio authentication filter, JAAS realm: "activemq" authorized role(s): "amq" role principal classes: "or
apache.activemq.artemis.spi.core.security.jaas.RolePrincipal"
19-02-13 12:01:37,753 INFO [io.hawt.web.JolokiaConfiguredAgentServlet] Jolokia overridden property: [key=policyLocation, value=file:/Users/bharaththippireddy/Documents/mybroker/
c:/jolokia-access.xml]
19-02-13 12:01:37,831 INFO [io.hawt.web.RBACMBeanInvoker] Using MBean [hawtio:type=security,area=jmx,rank=0,name=HawtioDummyJMXSecurity] for role based access control
```

4. Confirming , broker is running or not

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2019-02-13 12:01:38,656 INFO [org.apache.activemq.artemis] AMQ241004: Artemis Console available at http://localhost:8161/console
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Go to browser and type the url <http://localhost:8161/console>.
You will see the artemis console or window.

