# JMS Server

In Mulesoft, the JMS connector is used to interact with JMS servers, allowing Mulesoft applications to publish and consume messages using various JMS implementations like ActiveMQ. It enables communication between different components in a distributed application, providing asynchronous and loosely coupled messaging.

Message Queues:
Create a communication link between two applications for continuous data flow.

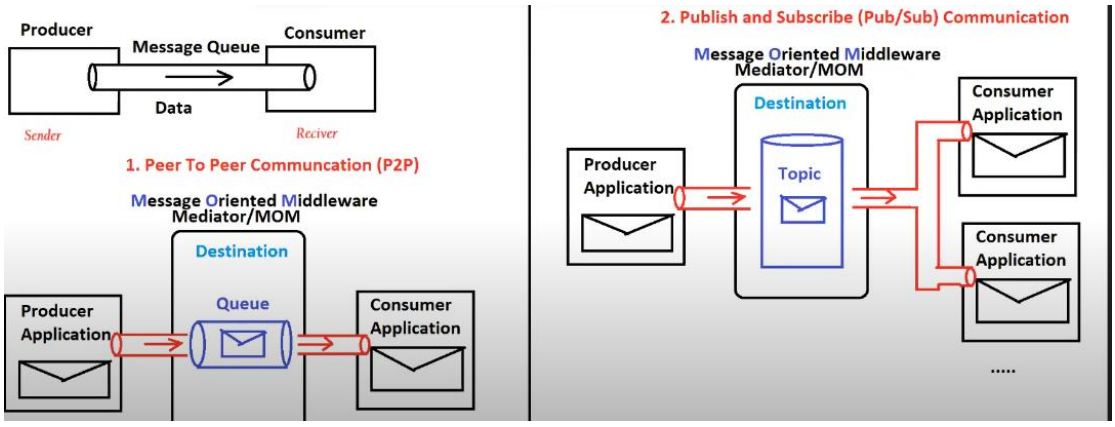
for login localhost:8161
username and password: admin

to connect with activeMQ, ther is another option using broken url, to get this

* Go to ActiveMQ install folder > conf > open activemq file > link with “tcp:-------”

```
sportConnectors>
 -- DOS protection, limit concurrent connections to 1000 and frame size to 100MB -->
:ransportConnector name="openwire" uri="tcp://0.0.0.0:61616?maximumConnections=1000&amp;
:ransportConnector name="amqp" uri="amqp://0.0.0.0:5672?maximumConnections=1000&amp;wire
:ransportConnector name="stomp" uri="stomp://0.0.0.0:61613?maximumConnections=1000&amp;w
:ransportConnector name="mqtt" uri="mqtt://0.0.0.0:1883?maximumConnections=1000&amp;wire
:ransportConnector name="ws" uri="ws://0.0.0.0:61614?maximumConnections=1000&amp;wireFor
nsportConnectors>

lestroy the spring context on shutdown to stop jetty -->
```

EX:

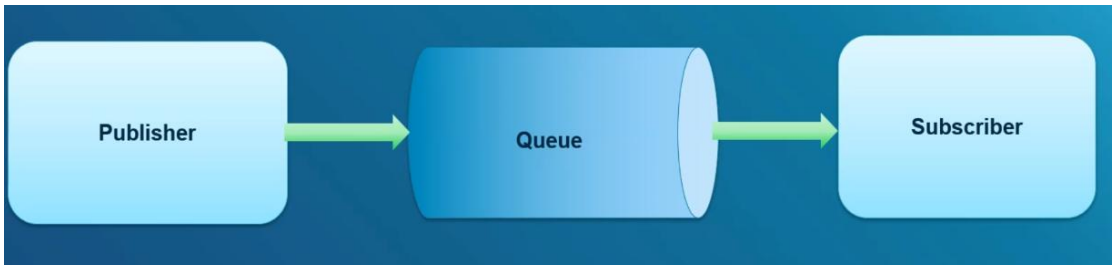
a. Swiggy Tracing Status : P2P
b. Ola/Uber cabs Live Status: P2P
c. Train live status : pub/sub
d. Cricket Scores : pub/sub
e. Stock Market Details : pub/sub
..etc

* Send data from producer application to consumer application (period of time, continues data flow)

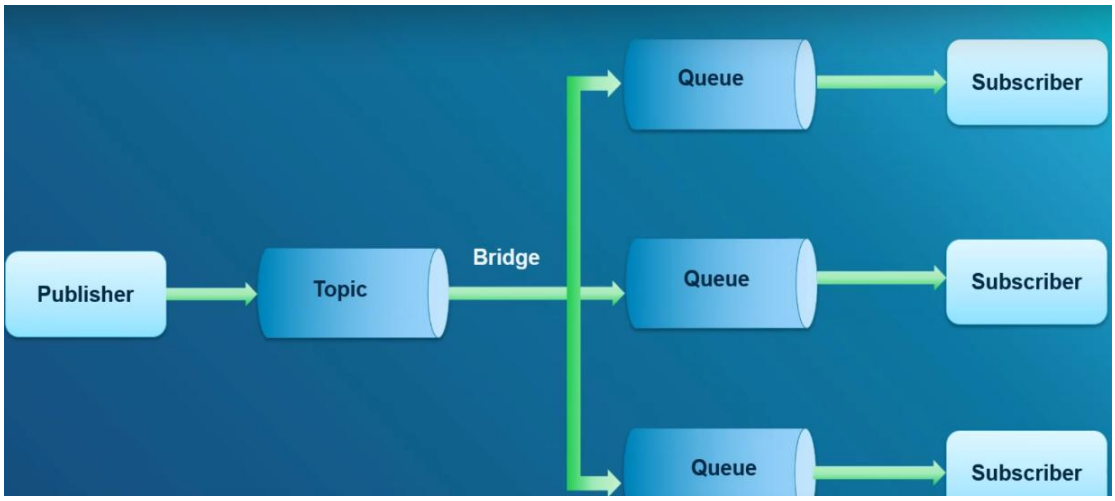
* Consumer need not to make any request , just one time setup /Connect/subscribe

## JMS Queue:

Queue is a pipeline, where we can publish paylaod. so that it can be subscribed by the client.




## JMS Queue:




==========MQs Using ==========
1. JMS (Apache Active MQ)
2. Rabbit MQ
3. Apache Kafka [Real time]
4. Anypoint MQ
5. Oracle Weblogic server
6. TIBCO EMS
7. HornetQ ..etc

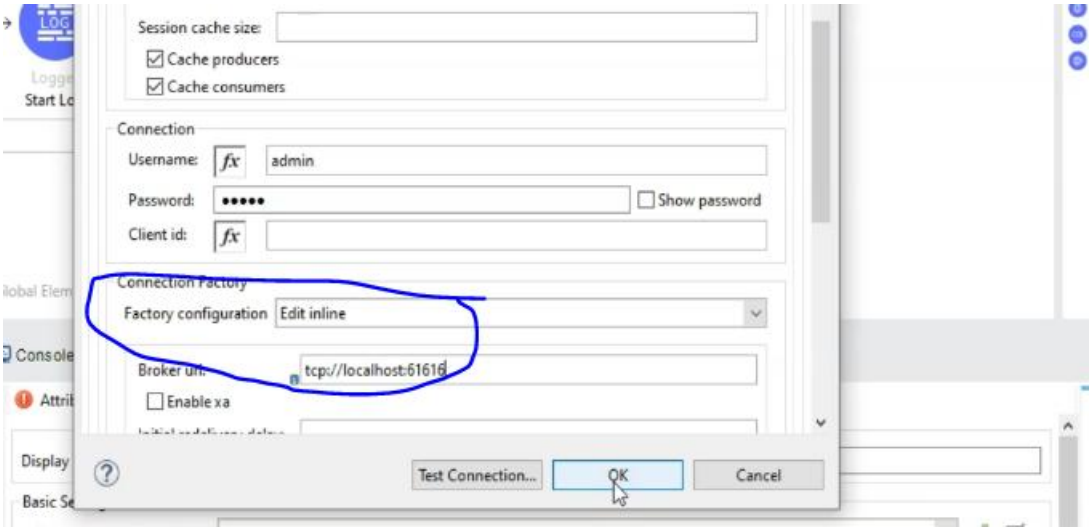
**use case:**

Get data from SQL and publish it to queue. with scheduler at night this opertation need to done. everyday data will erase and new data will add to SQL at night.

* output should be in array of Json format, we use transform message

```
payload map (emp, indexOfEmp) -> {
        employeename: emp.emp_name,
        employeeEmail: emp.emp_mail,
        employeePhone: emp.emp_phone,
        employeeSkills: emp.emp_skills
}
```


* login to ActiveMQ using http://localhost:8161 > manage activmq broker > queue > create new queue (Q.monster.profiles)
* go to anypoint studio, get JMS publish connector > configure > we need to configure required librarires, it can be found in Activemq installed folder, we can find actiqvemq jar
* factory config - editinline




* in publish connector, we should choose
Destination: Q.monster.profiles
desitination type : queue
Content type: application/json

>> after deploy flow, this data will store in activemq > Q.monster.profiles queue then this can be used by subscriber.

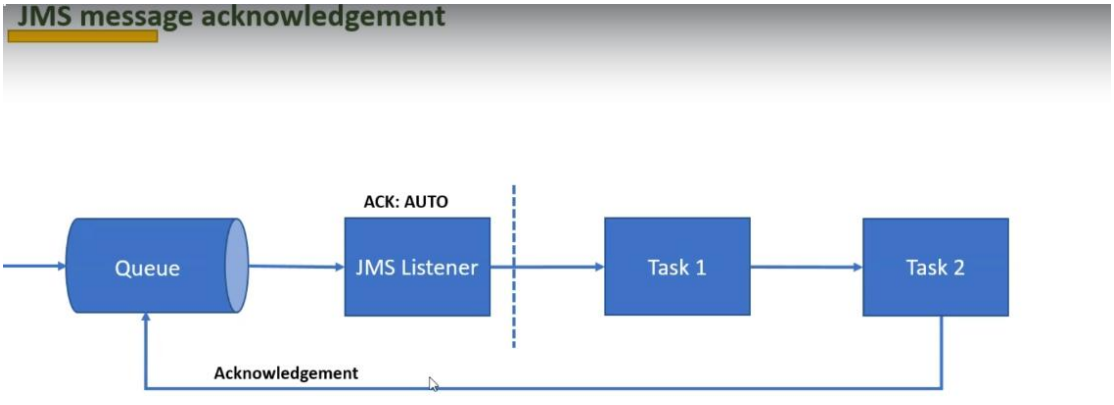
**For topic:**

* create topic in ActiveMq as T.monster.profiles
* in publish connector change
Destination: T.monster.profiles
desitination type : topic

**How Client will subcribe to queue/flow:**

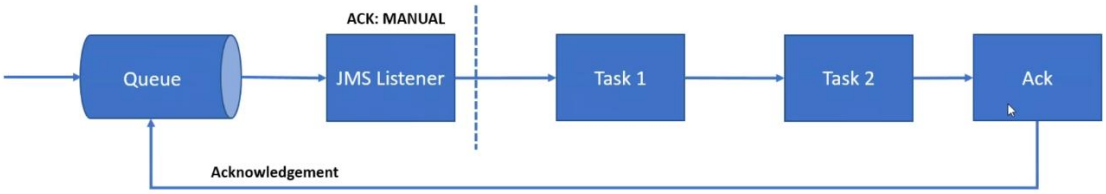
Create new file in project


Insert JMS on new message connector
1. Configure
2. Destination: Q.monster.profiles
3. consumer type : queue consumer
4. Content type: application/json

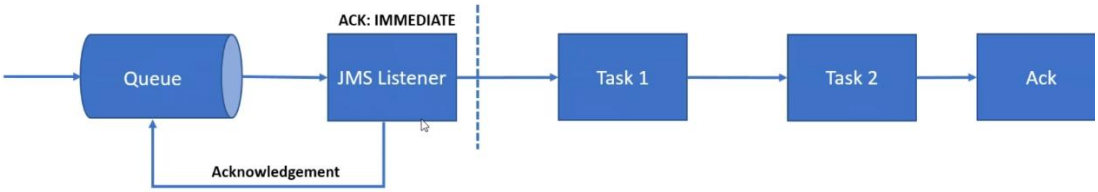




Acknowledge we have multiple:
1. Auto:

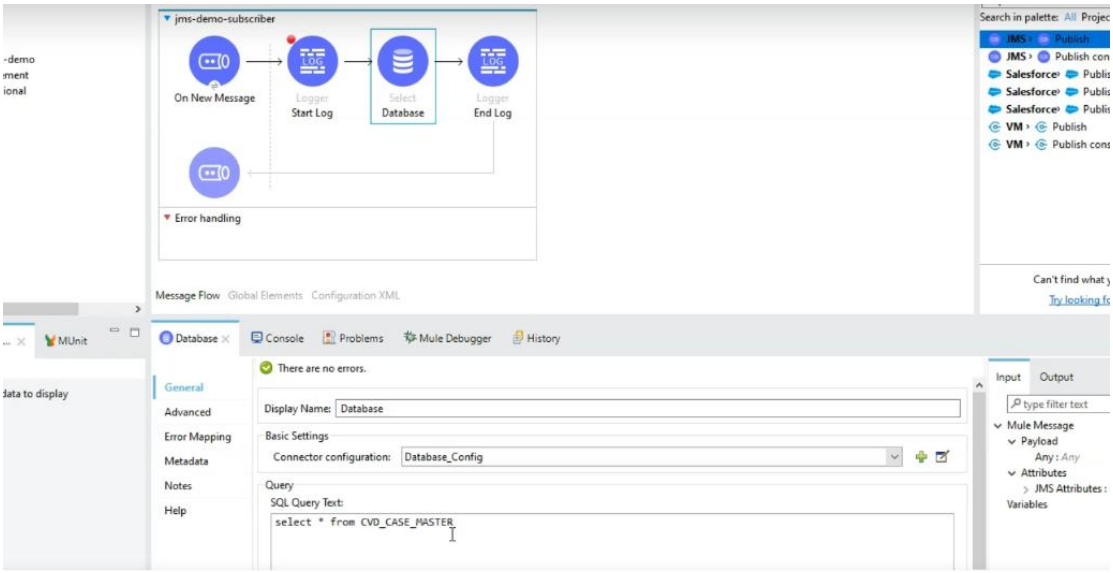
2. DUPS_OK: it may process duplicate records
3. Manual:




4. Immediate:




## USE-Case:




If the data is acknowledge from queue, it will get deleted.