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Message Queues using Spring Boot

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

*) send data from Producer application to consumer application
   (for a period of time,continioues data flow).

*) Consumer need not to make any request, just one time
connect/subscribe.


Ex:
a. Swiggy Tracing Status     : P2P
b. Ola/Uber cabs live status : P2P
c. Train live status         : Pub/Sub
d. Cricket Matches score.     : Pub/Sub
e. Stock Market details      : Pub/Sub
..etc

*) This not webservices concept, consumer will never make ay request,
   even will not send any data to producer.

*) Here , both Produer and Consumer applications communiates with each
   other using Mediator software, ie called as
      MOM : Message Oriented Middleware.

*) This MOM S/w contains memory called as 'Destination' which holds
all messages.
*) Producer gives message to MOM#Destination, consumer reads message
from
    MOM#Destination.

--- Types of communications--------------------------------
1. Peer to Peer Communication (P2P)
 If one message is given to one consumer then it is called as P2P.
 Destination type is called as Queue.

2. Publish and Subscribe Communication (Pub/Sub)

 If same/one message is given to multiple consumer then it is called
as Pub/Sub.
 Destination type is called as Topic.

=> There can be multiple queues/topic created in MOM server.
   Every topic/queue is identified using one name.
   ex: swiggy-sam-ram-2012003-queue,
       crickdata-ind-aus-55682693-topic

======MQs Coding=============================================
1. JMS (Apache ActiveMQ)  / RabbitMQ [Basic]
2. Apache Kafka  [Realtime]

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---Apache ActiveMQ---------------------
> Download : https://activemq.apache.org/components/classic/download/
> click on OS based link : Windows     apache-activemq-5.16.2-bin.zip
> Extract to a folder ex: 'apache-activemq-5.16.2'
> Open folder location '\apache-activemq-5.16.2\bin\win64'
> Click on activemq.bat file
> Enter URL : http://127.0.0.1:8161/admin
  Un : admin
  Pwd: admin
** check \apache-activemq-5.16.2\conf\users.properties

> press ctrl+C to terminate batch.
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                    JMS: Java Message Service

=> This API is given by Sun/Oracle.
=> It is part of J2EE.
=> By using This API we can trasfer data between two machines(apps)
   using Protocol 'TCP = Transmission Control Protocol'.

TCP  -- MQs            (Apache Kafka)
FTP  -- Files Trasfer  (Apache Camel)
https://www.youtube.com/c/NareshIT/search?query=camel
HTTP -- Web Apps       (Web API + Server)
```