Prerequisites

Hardware requirements:

Local machine

RAM 8 GB or above

Software requirements

VMware Workstation , Version : 16 pro

Download the software from given link :- https://prwatech.in/blog/software-installation/vmware-workstation-installation/

Ubuntu , Version:18.04 :- https://prwatech.in/blog/software-installation/vmware-workstation-installation/

Programming languages: Linux

1. Install java
   Command: $sudo apt-get install openjdk-8-jdk

```
user@ubuntu:~$ sudo apt-get install openjdk-8-jdk
```

2. Check the java version

```
user@ubuntu:~$ java -version
openjdk version "1.8.0_162"
OpenJDK Runtime Environment (build 1.8.0_162-8u162-b12-1-b12)
OpenJDK 64-Bit Server VM (build 25.162-b12, mixed mode)
```

3. Download kafka from the following link using **wget**

https://www.apache.org/dyn/closer.cgi?path=/kafka/2.7.0/kafka_2.13-2.7.0.tgz

```
user@ubuntu:~$ wget https://www.apache.org/dyn/closer.cgi?path=/kafka/2.7.0/kafka_2
.13-2.7.0.tgz
--2021-03-25 07:59:05--  https://www.apache.org/dyn/closer.cgi?path=/kafka/2.7.0/ka
fka_2.13-2.7.0.tgz
Resolving www.apache.org (www.apache.org)... 95.216.26.30, 207.244.88.140, 2a01:4f9
:2a:1a61::2
Connecting to www.apache.org (www.apache.org)|95.216.26.30|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'closer.cgi?path=%2Fkafka%2F2.7.0%2Fkafka_2.13-2.7.0.tgz'

closer.cgi?path=%2Fk     [ <=>                     ] 28.62K   160KB/s    in 0.2s

2021-03-25 07:59:06 (160 KB/s) - 'closer.cgi?path=%2Fkafka%2F2.7.0%2Fkafka_2.13-2.7
.0.tgz' saved [29303]
```

4. Go to the directory where kafka has downloaded and untar the file

```
user@ubuntu:~$ cd Downloads
user@ubuntu:~/Downloads$ ls
hadoop-1.2.0                kafka_2.13-2.7.0.tgz  scala-2.12.13.tgz
hadoop-2.7.0                oozie                 spark-3.0.2-bin-hadoop2.7
hadoop-3.2.1.tar.gz         oozie-5.2.1           spark-3.0.2-bin-hadoop2.7.tgz
jdk-8u281-linux-i586        oozie-5.2.1.tar.gz    sqoop-1.4.7
jdk-8u281-linux-i586.tar.gz scala-2.12.13         sqoop-1.4.7.tar.gz
user@ubuntu:~/Downloads$ tar -xvf kafka_2.13-2.7.0.tgz
kafka_2.13-2.7.0/
kafka_2.13-2.7.0/LICENSE
kafka_2.13-2.7.0/NOTICE
kafka_2.13-2.7.0/bin/
kafka_2.13-2.7.0/bin/kafka-delete-records.sh
kafka_2.13-2.7.0/bin/trogdor.sh
kafka_2.13-2.7.0/bin/kafka-preferred-replica-election.sh
kafka_2.13-2.7.0/bin/connect-mirror-maker.sh
kafka_2.13-2.7.0/bin/kafka-console-consumer.sh
```

Activate Windows
Go to Settings to activate Windows.

4. Run the following command to start all services in the correct order:

bin/zookeeper-server-start.sh config/zookeeper.properties

```
user@ubuntu:~/Downloads$ cd kafka_2.13-2.7.0/
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/zookeeper-server-start.sh config/zook
eeper.properties
[2021-03-25 08:00:49,569] INFO Reading configuration from: config/zookeeper.propert
ies (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2021-03-25 08:00:49,573] WARN config/zookeeper.properties is relative. Prepend ./
to indicate that you're sure! (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2021-03-25 08:00:49,703] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookee
per.server.quorum.QuorumPeerConfig)
[2021-03-25 08:00:49,703] INFO secureClientPort is not set (org.apache.zookeeper.se
rver.quorum.QuorumPeerConfig)
[2021-03-25 08:00:49,733] INFO autopurge.snapRetainCount set to 3 (org.apache.zooke
eper.server.DatadirCleanupManager)
```

5. Open new terminal and write the following code

bin/kafka-server-start.sh config/server.properties

```
user@ubuntu:~/Downloads$ cd kafka_2.13-2.7.0/
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/kafka-server-start.sh config/server.p
roperties
[2021-03-25 08:01:32,693] INFO Registered kafka:type=kafka.Log4jController MBean (k
afka.utils.Log4jControllerRegistration$)
[2021-03-25 08:01:34,575] INFO Setting -D jdk.tls.rejectClientInitiatedRenegotiatio
n=true to disable client-initiated TLS renegotiation (org.apache.zookeeper.common.X
509Util)
[2021-03-25 08:01:34,839] INFO Registered signal handlers for TERM, INT, HUP (org.a
pache.kafka.common.utils.LoggingSignalHandler)
[2021-03-25 08:01:34,860] INFO starting (kafka.server.KafkaServer)
[2021-03-25 08:01:34,873] INFO Connecting to zookeeper on localhost:2181 (kafka.ser
ver.KafkaServer)
[2021-03-25 08:01:35,110] INFO [ZooKeeperClient Kafka server] Initializing a new se
ssion to localhost:2181. (kafka.zookeeper.ZooKeeperClient)
[2021-03-25 08:01:35,118] INFO Client environment:zookeeper.version=3.5.8-f439ca583
e70862c3068a1f2a7d4d068eec33315, built on 05/04/2020 15:53 GMT (org.apache.zookeepe
```

Once all the services are successfully launched, there will be a basic Kafka environment running and ready to use.

6. Open another new terminal and run the following command

bin/kafka-topics.sh --create --topic quickstart-events --bootstrap-server localhost:9092

```
user@ubuntu:~$ cd Downloads
user@ubuntu:~/Downloads$ cd kafka_2.13-2.7.0/
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/kafka-topics.sh --create --topic quic
kstart-events --bootstrap-server localhost:9092
Created topic quickstart-events.
```

7. In the same terminal add the below commands

bin/kafka-topics.sh --describe --topic quickstart-events --bootstrap-server localhost:9092

```
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/kafka-topics.sh --describe --topic qu
ickstart-events --bootstrap-server localhost:9092
Topic: quickstart-events        PartitionCount: 1        ReplicationFactor: 1      Con
figs: segment.bytes=1073741824
        Topic: quickstart-events        Partition: 0    Leader: 0      Replicas: 0
Isr: 0
```

8. Now write some events

bin/kafka-console-producer.sh --topic quickstart-events --bootstrap-server localhost:9092

```
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/kafka-console-producer.sh --topic qui
ckstart-events --bootstrap-server localhost:9092
>This is my first event
>This is my second event
```

9. Now read the events you have entered in the new terminal

bin/kafka-console-consumer.sh --topic quickstart-events --from-beginning --bootstrap-server localhost:9092

```
user@ubuntu:~/Downloads/kafka_2.13-2.7.0$ bin/kafka-console-consumer.sh --topic qui
ckstart-events --from-beginning --bootstrap-server localhost:9092
```

```
This is my first event
This is my second event
```

https://prwatech.in/blog/apache-spark/apache-kafka-use-case-tutorial/
mob: 91-8147111254