1. Kafka local installation
   1. Download and untar
   2. wget <http://apache.spinellicreations.com/kafka/2.2.1/kafka_2.11-2.2.1.tgz> && tar -xf kafka\*.tgz && rm -fr kafka\*.tgz
   3. PATH=/home/dhyan/docker\_files/localkafka/kafka\_[2.11-2.2.1](http://apache.spinellicreations.com/kafka/2.2.1/kafka_2.11-2.2.1.tgz)/bin:$PATH
   4. bin/zookeeper-server-start.sh config/zookeeper.properties
   5. bin/kafka-server-start.sh config/server.properties
2. Docker kafka -
   1. Explain docker compose file - 1 min
   2. Docker compose up and show running kafka container
   3. Run docker ps -a and explain what it does
   4. Run again with --scale kafka=3 flag
   5. Run docker exec -it containername bash
   6. Run docker exec containername command
3. Create kafka topic
   1. Create kafka topic using kafka-topics sh
   2. kafka-topics.sh --create --zookeeper zookeeper:2181 --replication-factor 2 --partitions 5 --topic test\_topic
4. Kafka console consumer and producer -
   1. **Producer**:

docker exec -i kafkalab2019\_kafka\_1 kafka-console-producer.sh \

--broker-list localhost:9092 \

--topic test\_topic \

--property "parse.key=true" \

--property "key.separator=:"

* 1. **Consumer**:

docker exec kafkalab2019\_kafka\_1 kafka-console-consumer.sh \

--bootstrap-server localhost:9092 \

--topic test\_topic \

--property print.key=true \

--property key.separator="-"

1. Explain Python consumer/producer
2. Understanding kafka Log files / Replicas / Partitions /Log Dumps
   1. docker exec -it kafka\_kafka\_1 bash
   2. Show server.properties and explain key properties
   3. Cluster information:
      1. ./zookeeper-shell.sh zookeeper:2181
      2. get /brokers/ids/1001
   4. Show partition information from describe logs and show correlation between that replicas and logs folder on each node
   5. Get into one test topic partition folder
      1. cd /kafka/kafka-logs-141a3e8df1e4/test\_topic-0
      2. Run kafka dump to see contents of one .log file

kafka-run-class.sh kafka.tools.DumpLogSegments --files /kafka/kafka-logs-141a3e8df1e4/test\_topic-0/00000000000000000000.log --print-data-log --deep-iteration | less

1. Run python message producer and consumer and explain how broker list information in that is used
   1. Understanding consumer group names:

docker exec kafka\_kafka\_1 kafka-consumer-groups.sh --bootstrap-server localhost:9092 --group consumer-1 --describe | column -t | sort -k2,2 -V

1. **NOTE**: Kafka broadcast ip is setup in such a way that it will only be accessible inside container’s with hostname kafka . If you are trying to access it from your localmachine then connect to one of the kafka nodes and get the ip address from that machine .since its a bridged network it should be accessible from your local machine using ip but not dnsname`kafka`

Docker Reference :

<https://hub.docker.com/r/wurstmeister/kafka/>

<https://github.com/wurstmeister/kafka-docker>