Peer Assignment
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Assignment (4.2)

Start Kafka using docker-compose and:

1. Create a topic.
2. List Kafka topics.
3. Inspect one of them to see the number of partitions.

Solution

1. We use docker compose to run our containers.

```
version: '3'
services:
  zookeeper:
    image: confluentinc/cp-zookeeper:7.0.1
    container_name: zookeeper
    environment:
      ZOOKEEPER_CLIENT_PORT: 2181
      ZOOKEEPER_TICK_TIME: 2000

  broker:
    image: confluentinc/cp-kafka:7.0.1
    container_name: broker
    ports:
      - "9092:9092"
    depends_on:
      - zookeeper
    environment:
      KAFKA_BROKER_ID: 1
      KAFKA_ZOOKEEPER_CONNECT: 'zookeeper:2181'
      KAFKA_LISTENER_SECURITY_PROTOCOL_MAP: PLAINTEXT:PLAINTEXT,PLAINTEXT_INTERNAL:PLAINTEXT
      KAFKA_ADVERTISED_LISTENERS: PLAINTEXT://localhost:9092,PLAINTEXT_INTERNAL://broker:29092
      KAFKA_OFFSETS_TOPIC_REPLICATION_FACTOR: 1
      KAFKA_TRANSACTION_STATE_LOG_MIN_ISR: 1
      KAFKA_TRANSACTION_STATE_LOG_REPLICATION_FACTOR: 1
    restart: always
```

```
sabih@sheikh-muhammad-sabih:~/Documents/emeritus/may_8/assignments$ docker compose up -d
[+] Running 3/3
 ✓ Network assignments_default  Created                                           0.1s
 ✓ Container zookeeper          Started                                           0.3s
 ✓ Container broker             Started                                           0.6s
```

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2. We have created **topics** with name event1 and event2 in **kafka** with partitions 3 and 5.

```
docker compose exec broker kafka-topics --create --topic event1 --bootstrap-server broker:9092 --partitions 3

docker compose exec broker kafka-topics --create --topic event2 --bootstrap-server broker:9092 --partitions 5
```

```
Created topic event1.
Created topic event2.
```

3. Then we list the topics.

```
docker compose exec broker kafka-topics --list --bootstrap-server broker:9092
```

```
event1
event2
```

4. Now we can see the partitions of event1 by using **describe** .

```
docker compose exec broker kafka-topics --topic event1 --describe --bootstrap-server broker:9092
```

```
Topic: event1    TopicId: ybiAkgAmTsi0jrx6NOPwkA PartitionCount: 3        ReplicationFactor: 1    Configs:
        Topic: event1    Partition: 0    Leader: 1        Replicas: 1    Isr: 1
        Topic: event1    Partition: 1    Leader: 1        Replicas: 1    Isr: 1
        Topic: event1    Partition: 2    Leader: 1        Replicas: 1    Isr: 1
```