

Streams using Bitnami Redis on Minikube

Prerequisites:

1. Setup docker on local machine
2. Setup minikube and start a cluster using it
3. Install helm and make sure it's path is correct

Deploying Bitnami-Redis:

- a. Add bitnami to your helm repos, using this command

```
helm repo add bitnami https://charts.bitnami.com/bitnami
```
- b. Now pull the bitnami/redis repository

```
helm pull bitnami/redis --untar
```
- c. Head into the repository and open `values.yaml` file and change the following,

```
cluster:  
  enabled: true  
  slaveCount: 2  change to 1
```

```
usePassword: false  
  
tls:  
  # Enable TLS traffic  
  enabled: false  
  #  
  # Whether to require clients to authenticate or not.  
  authClients: true  change to false
```

```
persistence:  
  enabled: true  
  #change to false for both master and slave
```

```
master:
  disableCommands:
    - FLUSHDB
    - FLUSHALL
#comment out both lines
```

- d. Now save the changes and deploy it using helm, you should see 2 pods(master and slave) deployed

```
helm install redis-v1 -f values.yaml .
```
- e. In the streams folder build docker image for redis-client.

```
docker build -t redis-client .
```
- f. Once the image is built, use deployment.yaml to deploy to your cluster, you should see 3 pods of redis client.

```
kubectl apply -f deployment.yaml
```
- g. SSH into redis-master and perform following commands respectively,

```
$user: kubectl exec -it <redis-master-podname> bin/bash
$redis-master@redis: redis-cli
$someIP@redis: XGROUP CREATE stream1 group1 $ MKSTREAM
OK
```
- h. Now open three terminals and ssh into the three redis-client pods respectively, start consumer1.py and consumer2.py applications in two pods. Then start the producer application and you should be able to see the messages coming in.

References:

<https://github.com/bitnami/charts/tree/master/bitnami/redis>

<https://redis.io/topics/streams-intro>