1. Commands that you used during the assignment.

root@ip-172-31-42-171:~# apt-get install git -y

Reading package lists... Done

Building dependency tree

Reading state information... Done

git is already the newest version (1:2.25.1-1ubuntu3.11).

git set to manually installed.

0 upgraded, 0 newly installed, 0 to remove and 8 not upgraded.

## next get a clone from git for voting app

root@ip-172-31-42-171:~# git clone https://github.com/ashishrpandey/example-voting-app

Cloning into 'example-voting-app'...

remote: Enumerating objects: 494, done.

remote: Total 494 (delta 0), reused 0 (delta 0), pack-reused 494

Receiving objects: 100% (494/494), 236.18 KiB | 14.76 MiB/s, done.

Resolving deltas: 100% (179/179), done.

root@ip-172-31-42-171:~# /root/example-voting-app

-bash: /root/example-voting-app: Is a directory

root@ip-172-31-42-171:~# cd /root/example-voting-app

root@ip-172-31-42-171:~/example-voting-app#

root@ip-172-31-42-171:~/example-voting-app#

root@ip-172-31-42-171:~/example-voting-app#

root@ip-172-31-42-171:~/example-voting-app# ll

total 132

drwxr-xr-x 8 root root 4096 Apr 29 12:17 ./

drwx------ 6 root root 4096 Apr 29 12:17 ../

drwxr-xr-x 8 root root 4096 Apr 29 12:17 .git/

drwxr-xr-x 2 root root 4096 Apr 29 12:17 .github/

-rw-r--r-- 1 root root 33 Apr 29 12:17 .gitignore

-rw-r--r-- 1 root root 10758 Apr 29 12:17 LICENSE

-rw-r--r-- 1 root root 185 Apr 29 12:17 MAINTAINERS

-rw-r--r-- 1 root root 2182 Apr 29 12:17 README.md

-rw-r--r-- 1 root root 54824 Apr 29 12:17 architecture.png

-rw-r--r-- 1 root root 808 Apr 29 12:17 docker-compose-javaworker.yml

-rw-r--r-- 1 root root 400 Apr 29 12:17 docker-compose-simple.yml

-rw-r--r-- 1 root root 808 Apr 29 12:17 docker-compose.yml

-rw-r--r-- 1 root root 1692 Apr 29 12:17 docker-stack.yml

-rw-r--r-- 1 root root 609 Apr 29 12:17 dockercloud.yml

drwxr-xr-x 2 root root 4096 Apr 29 12:17 k8s-specifications/

drwxr-xr-x 5 root root 4096 Apr 29 12:17 result/

drwxr-xr-x 4 root root 4096 Apr 29 12:17 vote/

drwxr-xr-x 3 root root 4096 Apr 29 12:17 worker/

root@ip-172-31-42-171:~/example-voting-app# cd k8s-specifications/

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# ll

total 44

drwxr-xr-x 2 root root 4096 Apr 29 12:17 ./

drwxr-xr-x 8 root root 4096 Apr 29 12:17 ../

-rw-r--r-- 1 root root 401 Apr 29 12:17 db-deployment.yaml

-rw-r--r-- 1 root root 146 Apr 29 12:17 db-service.yaml

-rw-r--r-- 1 root root 402 Apr 29 12:17 redis-deployment.yaml

-rw-r--r-- 1 root root 152 Apr 29 12:17 redis-service.yaml

-rw-r--r-- 1 root root 299 Apr 29 12:17 result-deployment.yaml

-rw-r--r-- 1 root root 195 Apr 29 12:17 result-service.yaml

-rw-r--r-- 1 root root 289 Apr 29 12:17 vote-deployment.yaml

-rw-r--r-- 1 root root 192 Apr 29 12:17 vote-service.yaml

-rw-r--r-- 1 root root 292 Apr 29 12:17 worker-deployment.yaml

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# vi vote-service.yaml

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# vi re

redis-deployment.yaml redis-service.yaml result-deployment.yaml result-service.yaml

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# vi result-service.yaml

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications#

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications#

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications#

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications#

#nxt change the nodeport for voting and result yaml according, wrt not to collide with other worker node

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# kubectl apply -f .

deployment.apps/db created

service/db created

deployment.apps/redis created

service/redis created

deployment.apps/result created

service/result created

deployment.apps/vote created

service/vote created

deployment.apps/worker created

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications# kubectl get all

NAME READY STATUS RESTARTS AGE

pod/db-58cc845644-wlccp 0/1 Pending 0 14s

pod/redis-6878558678-gdb8x 0/1 Pending 0 14s

pod/result-86bc6f7b5d-275xv 0/1 ContainerCreating 0 14s

pod/vote-7d884dd585-ln8l9 0/1 ContainerCreating 0 14s

pod/worker-6fc5d5b668-6z54m 0/1 Pending 0 14s

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

service/db ClusterIP 10.104.215.1 <none> 5432/TCP 16s

service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 3m16s

service/redis ClusterIP 10.110.242.249 <none> 6379/TCP 16s

service/result NodePort 10.106.173.71 <none> 5001:31003/TCP 16s

service/vote NodePort 10.110.1.72 <none> 5000:31002/TCP 16s

NAME READY UP-TO-DATE AVAILABLE AGE

deployment.apps/db 0/1 1 0 16s

deployment.apps/redis 0/1 1 0 16s

deployment.apps/result 0/1 1 0 16s

deployment.apps/vote 0/1 1 0 16s

deployment.apps/worker 0/1 1 0 16s

NAME DESIRED CURRENT READY AGE

replicaset.apps/db-58cc845644 1 1 0 16s

replicaset.apps/redis-6878558678 1 1 0 16s

replicaset.apps/result-86bc6f7b5d 1 1 0 16s

replicaset.apps/vote-7d884dd585 1 1 0 16s

replicaset.apps/worker-6fc5d5b668 1 1 0 16s

root@ip-172-31-42-171:~/example-voting-app/k8s-specifications#

2. snapshot of logs (wherever possible)

Unable to add snapshot

I deleted the voting POD, found no difference in the GUI, as replica set has changed the POD and a new POD has been replaced.

3. your comment on WHY result app STOPPED working after db pod stop

DB pod stores the value from voting app and the pushes it to result app, hence when DB is deleted, result app will stop

4. your answer to HOW YOU MADE THE RESULT POD work.

The DB POD came back up by itself, as it was a replica, result POD started working on its own.

5.

I was aware of the basics, but this session gave a through brief of kubernetes which was very much useful.

Thanks, Sumit