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Module 9: Case Study

You are working as a Devops Administrator. You’ve been tasked to deploy a multi-tier application on Kubernetes Cluster. The application is a NodeJS application available on Docker Hub with the following name:

devopsedu/employee

This NodeJS application works with a mongo database. MongoDB image is available on DockerHub with the following name:

mongo

You are required to deploy this application on Kubernetes:

* NodeJS is available on port 8888 in the containerand will be reaching out to port 27017 for mongo database connection
* MongoDB will be accepting connections on port 27017

You must deploy this application using the CLI.

Once your application is up and running, ensure you can add an employee from the NodeJS application and verify by going to Get Employee page and retrieving your input.

Hint:Name the Mongo DB Service and deployment, specifically as “mongo”.

**Solution:**

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl run mongo --image=mongo --port=27017 --env=MONGO\_INITDB\_ROOT\_USERNAME=admin --env=MONGO\_INITDB\_ROOT\_PASSWORD=secret

pod/mongo created

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl run employee --image=devopsedu/employee --port=1004 --env=MONGO\_URL="mongodb://admin:secret@10.88.0.4:27017/?retryWrites=true&w=majority"

pod/employee created

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl get po

NAME READY STATUS RESTARTS AGE

employee 0/1 ContainerCreating 0 6s

mongo 1/1 Running 0 7m45s

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl expose po mongo --port=27017 --target-port=27017 --name=mong

o --type=NodePort

service/mongo exposed

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl expose po employee --port=8888 --target-port=8888 --name=employee --type=NodePort

service/employee exposed

f6a0d4b5\_9e85\_4274\_bdf9@cloudshell:~/new/$ kubectl get po -o wide

NAME READY STATUS RESTARTS AGE IP NODE NOMINATED NODE READINESS GATES

employee 1/1 Running 0 15m 10.24.0.23 gk3-autopilot-cluster-1-pool-2-630c44a1-whl2 <none> <none>

mongo 1/1 Running 0 22m 10.24.0.22 gk3-autopilot-cluster-1-pool-2-630c44a1-whl2 <none> <none>