**Activity 4**

3. Test your cluster with nginx as followed:

1. Deploy an nginx on your cluster using the deployment file from <https://k8s.io/examples/application/deployment.yaml>
2. Use kubectl to describe the deployment

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a. & b.

4. Deploy a todo service with redis database as followed:

1. Create a deployment file of a pod with service of the following containers:
   1. todo (release-2.1)
   2. redis
2. apiVersion: apps/v1
3. kind: Deployment
4. metadata:
5. name: todo-service-redis-deployment
6. labels:
7. app: todo-service-redis
8. spec:
9. replicas: 1
10. selector:
11. matchLabels:
12. app: todo-service-redis
13. template:
14. metadata:
15. labels:
16. app: todo-service-redis
17. spec:
18. containers:
19. - name: todo-service
20. image: natawut/todo-service:release-2.1
21. ports:
22. - containerPort: 8000
23. env:
24. - name: REDIS\_HOST
25. value: localhost
26. - name: redis
27. image: redis:7-alpine

deployment.yaml

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b.

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b. get commands results.

1. Create a deployment file of a pod with service of the following containers:

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nginx-ingress

apiVersion: networking.k8s.io/v1

kind: Ingress

metadata:

name: todo-service-redis-ingress

namespace: default

annotations:

nginx.ingress.kubernetes.io/rewrite-target: /

spec:

ingressClassName: nginx

rules:

- host: localhost

http:

paths:

- path: /

pathType: Prefix

backend:

service:

name: todo-service-redis-deployment

port:

number: 80

ingress.yaml

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apply ingress

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describe ingress

e. Test the newly deployment

  i. Create a new todo record with  
     {"title":"todo-1","detail":"the first todo","duedate":"2022-10-24 11:00:00","tags":[],"completed":false}

 ii. Get todo list via localhost:80

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