Dockerfile:

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FROM nginx:latest

COPY nginx-html/mywebpage.html /usr/share/nginx/html

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Copy html file to nginx docker container: /nginx-html:/usr/share/nginx/html

docker rmi -f $(docker images -aq) ##Removes all docker images

There are multiple way to upgrade the deployment from one version to another...

kubectl set image deployment/nginx-deployment nginx=nginx:1.9.1

kubectl edit deployment/nginx-deployment

After updating version field in deployment yaml file, check status of rollout:

kubectl rollout status deployment/nginx-deployment

kubectl get rs

kubectl describe deployments

Deployment Rolling Update: https://github.com/javahometech/kubernetes/tree/master/deployments

HPA example:

https://github.com/javahometech/kubernetes/blob/master/autoscaling/hpa.yml

kubectl apply -f <https://github.com/javahometech/kubernetes/blob/master/autoscaling/hpa.yml>

OR

kubectl apply -f hpa.yml

kubectl autoscale deployment php-apache --cpu-percent=50 --min=1 --max=10

kubectl get hpa

kubectl run -i --tty load-generator --rm --image=busybox --restart=Never -- /bin/sh -c "while sleep 0.01; do wget -q -O- http://php-apache; done"

RBAC: <https://kubernetes.io/docs/reference/access-authn-authz/rbac/>