

- 1- Install k8s cluster (minikube) (optional you can use  
<https://www.katacoda.com/courses/kubernetes/playground>)
- 2- Create a pod with the name `redis` and with the image `redis`.
- 3- Create a pod with the name `nginx` and with the image “`nginx123`”  
    Use a pod-definition YAML file.
- 4- What is the nginx pod status?
- 5- Change the nginx pod image to “`nginx`” check the status again
- 6- How many ReplicaSets exist on the system?
- 7- create a ReplicaSet with

```
name= replica-set-1
image= busybox
replicas= 3
```
- 8- Scale the ReplicaSet `replica-set-1` to 5 PODs.
- 9- How many PODs are READY in the `replica-set-1`?
- 10- Delete any one of the 5 PODs then check How many PODs exist now?  
    Why are there still 5 PODs, even after you deleted one?
- 11- How many Deployments and ReplicaSets exist on the system?
- 12- create a Deployment with

```
name= deployment-1
image= busybox
replicas= 3
```
- 13- How many Deployments and ReplicaSets exist on the system now?
- 14- How many pods are ready with the deployment-1?
- 15- Update deployment-1 image to nginx then check the ready pods again
- 16- Run `kubectl describe deployment deployment-1` and check events  
    What is the deployment strategy used to upgrade the deployment-1?
- 17- Rollback the deployment-1  
    What is the used image with the deployment-1?
- 18- Create a deployment using nginx image with latest tag only and remember to mention tag i.e `nginx:latest` and name it as `nginx-deployment`. App labels should be `app: nginx-app` and `type: front-end`. The container should be named as `nginx-container`; also make sure replica counts are 3.