

1- Setting up CLI on your system

https://console.bluemix.net/docs/cli/reference/bluemix_cli/get_started.html#getting-started

https://console.bluemix.net/docs/containers/cs_cli_install.html#cs_cli_install

Following in based on Ubuntu:

Install bx

1- `wget https://clis.ng.bluemix.net/download/bluemix-cli/latest/linux64`

2- `tar -xzf linux64`

3- `cd Bluemix_CLI/`

4- `./install_bluemix_cli`

Install cs:

1- `bx plugin install container-service -r Bluemix`

2- `bx plugin list`

Install kubectl:

```
1- wget https://  
storage.googleapis.com/kubernetes-  
release/release/v1.8.8/bin/linux/amd64/  
kubectl  
2-    chmod 777 kubectl  
3-    mv kubectl /usr/local/bin/  
kubectl
```

Install CR

```
1- bx plugin install container-  
registry -r Bluemix  
2- bx plugin list
```

Install Docker:

```
1- add the GPG key for the official  
Docker repository to the system  
    curl -fsSL https://  
download.docker.com/linux/ubuntu/gpg |  
sudo apt-key add -  
2- Add the Docker repository  
    sudo add-apt-repository "deb  
[arch=amd64] https://
```

download.docker.com/linux/ubuntu \$
(lsb_release -cs) stable"

3- sudo apt-get update

4- Make sure you are about to
install from the Docker repo instead of the
default Ubuntu

apt-cache policy docker-ce

5- sudo apt-get install -y docker-
ce

Optional:

6- sudo usermod -aG docker
ubuntu

7- su - ubuntu

8- sudo usermod -aG docker
ubuntu

2- Setting/Working on IBM provided Kubernetes cluster

Public cloud —> [https://
console.bluemix.net/](https://console.bluemix.net/)

a- Login to container services:

a- Login to Bluemix

```
bx login -a https://  
api.ng.bluemix.net
```

b- Login to container services

```
bx cs init --host https://us-  
south.containers.bluemix.net
```

b- Working with IBM Clusters

1- Review locations

```
$bx cs locations
```

2- Get details of machine types

```
$bx cs machine-types dal10
```

3- Check vlans

```
$bx cs vlans dal10 | grep Cruiser
```

4- Create cluster

Free/lite:

```
$bx cs cluster-create --name  
freeDemoCluster
```

Standard cluster:

```
$bx cs credentials-set --  
infrastructure-username $SL_USER_ID --  
infrastructure-api-key  
$SL_USER_API_KEY  
$bx cs cluster-create --name
```

```
demo_std_cluster --location dal10 --  
public-vlan 1204 --private-vlan 1312 --  
machine-type u1c.2x4 --workers 1
```

5- Add/Delete worker on the cluster

```
$bx cs worker-add --cluster
```

```
demo_std_cluster --workers 1 --public-  
vlan 1204 --private-vlan 1312 --machine-  
type u1c.2x4
```

```
$bx cs worker-rm demo_std_cluster  
<worker1 id>
```

6- Checking dashboard

```
kubectl proxy
```

```
http://localhost:8001/ui
```

7- Create a POD on cluster

8- Create a POD with local volume

9- Working with your own docker image

1- Creating image and pushing to
private registry on IBM Cloud

```
$docker build -t  
registry.ng.bluemix.net/test_new/  
myownimage:latest .
```

```
$docker push
```

registry.ng.bluemix.net/test_new/
myownimage:latest

2- Creating deployment/pod on IBM
provided Kubernetes clusters

3- bx account spaces

10- Create the PV/PVC

a- Create PVC

b- Create POD with persistent
storage