

We have installed helm and using helm we are generating Kubernetes yaml files .

Without validating we cant deploy to production .

Whenever we generate chart using helm , after modifying all files we will run helm lint – it will validate our changes before we make changes to production .

List all helm chart . – helm list

```
replicaset.apps/mychart-helloworld-66745bbc69 1 1 1 17m
ubuntu@ip-172-31-47-135:~/helloworld$ helm list
NAME      NAMESPACE    REVISION    UPDATED                               STATUS    CHART          APP VERSION
mychart   default      1           2023-04-08 10:11:36.420431634 +0000 UTC deployed  helloworld-0.1.0 1.16.0
ubuntu@ip-172-31-47-135:~/helloworld$
```

Delete helm chart : helm delete chart_name

```
mychart default 1 2023-04-08 10:11:36
ubuntu@ip-172-31-47-135:~/helloworld$ helm delete mychart
release "mychart" uninstalled
ubuntu@ip-172-31-47-135:~/helloworld$
```

Create helm chart .

```
Chart.yaml charts templates values.yaml
ubuntu@ip-172-31-47-135:~/helloworld$ helm create helmlint
```

Creating helmlint

```
ubuntu@ip-172-31-47-135:~/helloworld$ tree helmlint/
```

```
helmlint/
├── Chart.yaml
├── charts
├── templates
│   ├── NOTES.txt
│   ├── _helpers.tpl
│   ├── deployment.yaml
│   ├── hpa.yaml
│   ├── ingress.yaml
│   ├── service.yaml
│   ├── serviceaccount.yaml
│   └── tests
│       └── test-connection.yaml
└── values.yaml
```

3 directories, 10 files

```
ubuntu@ip-172-31-47-135:~/helloworld$ ls
Chart.yaml  charts  helmlint  templates  values.yaml
ubuntu@ip-172-31-47-135:~/helloworld$ cd helmlint/
ubuntu@ip-172-31-47-135:~/helloworld/helmlint$ ls
Chart.yaml  charts  templates  values.yaml
ubuntu@ip-172-31-47-135:~/helloworld/helmlint$
```

```
ubuntu@ip-172-31-47-135:~/helloworld/helmlint$ cd ..
ubuntu@ip-172-31-47-135:~/helloworld$ helm lint helmlint/
==> Linting helmlint/
[INFO] Chart.yaml: icon is recommended
```

1 chart(s) linted, 0 chart(s) failed

```
ubuntu@ip-172-31-47-135:~/helloworld$
```

Change service from clusterip to nodeport in service.yaml

Create release using helm .

```

ERROR: INSTALLATION FAILED: must either provide a name or specify --generate-name
ubuntu@ip-172-31-47-135:~/helmlint$ helm install myrelease .
NAME: myrelease
LAST DEPLOYED: Sat Apr  8 10:44:59 2023
NAMESPACE: default
STATUS: deployed
REVISION: 1
NOTES:
1. Get the application URL by running these commands:
  export NODE_PORT=$(kubectl get --namespace default -o jsonpath="{.spec.ports[0].nodePort}" services myrelease-helmlint)
  export NODE_IP=$(kubectl get nodes --namespace default -o jsonpath="{.items[0].status.addresses[0].address}")
  echo http://$NODE_IP:$NODE_PORT
ubuntu@ip-172-31-47-135:~/helmlint$

```

```

ubuntu@ip-172-31-47-135:~/helmlint$ helm list -a
NAME          NAMESPACE    REVISION    UPDATED                               STATUS          CHART          APP VERSION
myrelease     default       1           2023-04-08 10:44:59.901154821 +0000 UTC deployed        helmlint-0.1.0 1.16.0
ubuntu@ip-172-31-47-135:~/helmlint$

```

Once we do port forwarding we can check nginx site also .

Lets make few mistake to test helmlint .

Lets comment image in values.yaml

Now check lint .

```

ubuntu@ip-172-31-47-135:~/helmlint$ helm lint .
==> Linting .
[INFO] Chart.yaml: icon is recommended
[ERROR] values.yaml: unable to parse YAML: error converting YAML to JSON: yaml: line 7: did not find expected key
[ERROR] templates/: cannot load values.yaml: error converting YAML to JSON: yaml: line 7: did not find expected key
[ERROR] : unable to load chart
cannot load values.yaml: error converting YAML to JSON: yaml: line 7: did not find expected key

Error: 1 chart(s) linted, 1 chart(s) failed
ubuntu@ip-172-31-47-135:~/helmlint$

```

We can see that helmlint is specifying that there are mistake in our values.yaml file .

Now undo changes and check using lint .

```

ubuntu@ip-172-31-47-135:~/helmlint$ vi values.yaml
ubuntu@ip-172-31-47-135:~/helmlint$ helm lint .
==> Linting .
[INFO] Chart.yaml: icon is recommended

1 chart(s) linted, 0 chart(s) failed
ubuntu@ip-172-31-47-135:~/helmlint$

```
