

## Lab – 5

Gagandeep Kaur (101503702)

```
gagandeepkaur@LAPTOP-S6L9EA8N: $ curl https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3 | bash
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total     Spent    Left     Speed
100 11679  100 11679    0     0  44546      0 --:--:-- --:--:-- --:--:-- 44747
Downloading https://get.helm.sh/helm-v3.14.0-linux-amd64.tar.gz
Verifying checksum... Done.
Preparing to install helm into /usr/local/bin
[sudo] password for gagandeepkaur:
helm installed into /usr/local/bin/helm
gagandeepkaur@LAPTOP-S6L9EA8N: $ helm repo add prometheus-community https://prometheus-community.github.io/helm-charts
"prometheus-community" has been added to your repositories
gagandeepkaur@LAPTOP-S6L9EA8N: $ helm repo update
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "prometheus-community" chart repository
Update Complete. Happy Helming!
```

```
gagandeepkaur@LAPTOP-S6L9EA8N: $ helm install prometheus prometheus-community/prometheus
NAME: prometheus
LAST DEPLOYED: Mon Feb 5 15:37:25 2024
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
The Prometheus server can be accessed via port 80 on the following DNS name from within your cluster:
prometheus-server.default.svc.cluster.local

Get the Prometheus server URL by running these commands in the same shell:
export POD_NAME=$(kubectl get pods --namespace default -l "app.kubernetes.io/name=prometheus,app.kubernetes.io/instance=prometheus" -o jsonpath="{.items[0].metadata.name}")
kubectl --namespace default port-forward $POD_NAME 9090

The Prometheus alertmanager can be accessed via port 9093 on the following DNS name from within your cluster:
prometheus-alertmanager.default.svc.cluster.local

Get the Alertmanager URL by running these commands in the same shell:
export POD_NAME=$(kubectl get pods --namespace default -l "app.kubernetes.io/name=alertmanager,app.kubernetes.io/instance=prometheus" -o jsonpath="{.items[0].metadata.name}")
kubectl --namespace default port-forward $POD_NAME 9093

##### WARNING: Pod Security Policy has been disabled by default since #####
##### it deprecated after k8s 1.25+. use #####
##### (index .Values "prometheus-node-exporter" "rbac" #####
##### "pspEnabled") with (index .Values #####
##### "prometheus-node-exporter" "rbac" "pspAnnotations") #####
##### in case you still need it. #####
#####
```

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gagandeepkaur@LAPTOP-S6L9EA8N:~$ kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
dapp-5f85856bf7-njpzn	1/1	Running	1 (9m7s ago)	6d19h
ganache-7b4c86b4c5-t9hzj	1/1	Running	1 (9m10s ago)	6d20h
grafana-5fbf87bf74-wjfgk	1/1	Running	0	5m51s
kubectl-pod1	1/1	Running	4 (9m8s ago)	6d18h
load-generator	0/1	Error	0	6d19h
mongo-express-deployment-b88f6d45f-2zctr	1/1	Running	3 (3m38s ago)	14d
mongodb-stateful-set-0	1/1	Running	2 (9m11s ago)	14d
mongodb-stateful-set-1	1/1	Running	2 (9m10s ago)	14d
nginx	1/1	Running	1 (9m13s ago)	6d18h
nginx-deployment-584fbb974d-c4sqb	1/1	Running	7 (9m19s ago)	14d
nginx-deployment-584fbb974d-pw2qs	1/1	Running	8 (9m20s ago)	14d
nginx-deployment-584fbb974d-v5847	1/1	Running	8 (9m16s ago)	14d
nginx-nhlqb	1/1	Running	2 (9m14s ago)	14d
note-deployment-74cc946cd8-2r4fw	1/1	Running	2 (9m14s ago)	14d
note-deployment-74cc946cd8-zp4pc	1/1	Running	2 (9m18s ago)	14d
note-server-deployment-6fb5fcb67f-2knvx	1/1	Running	2 (9m8s ago)	14d
note-server-deployment-6fb5fcb67f-j7m9d	1/1	Running	2 (9m8s ago)	14d
prometheus-alertmanager-0	1/1	Running	0	5m56s
prometheus-kube-state-metrics-745b475957-r2q6v	1/1	Running	0	5m57s
prometheus-prometheus-node-exporter-x2wcj	1/1	Running	0	5m57s
prometheus-prometheus-pushgateway-6ccd698d79-b8p4p	1/1	Running	0	5m57s
prometheus-server-5c99dfc547-mmmps	2/2	Running	0	5m57s
react-95c5d68df-vc9qv	1/1	Running	1 (9m19s ago)	6d19h
web-0	0/1	Pending	0	14d

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gagandeepkaur@LAPTOP-S6L9EA8N:~$
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```
gagandeepkaur@LAPTOP-S6L9EA8N:~$ kubectl get svc
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
dapp	ClusterIP	10.107.242.203	<none>	4000/TCP	6d20h
ganache	ClusterIP	10.106.71.165	<none>	8545/TCP	6d20h
grafana	ClusterIP	10.100.108.56	<none>	80/TCP	6m20s
kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	14d
mongo-express-service	LoadBalancer	10.109.7.225	127.0.0.1	8081:30877/TCP	14d
mongodb-service	ClusterIP	10.109.43.119	<none>	27017/TCP	14d
nginx	ClusterIP	None	<none>	80/TCP	14d
note-server-service	ClusterIP	10.108.232.72	<none>	5000/TCP	14d
note-service	LoadBalancer	10.99.78.167	127.0.0.1	3000:31211/TCP	14d
prometheus-alertmanager	ClusterIP	10.105.18.171	<none>	9093/TCP	6m28s
prometheus-alertmanager-headless	ClusterIP	None	<none>	9093/TCP	6m28s
prometheus-kube-state-metrics	ClusterIP	10.109.11.233	<none>	8080/TCP	6m28s
prometheus-prometheus-node-exporter	ClusterIP	10.106.252.218	<none>	9100/TCP	6m28s
prometheus-prometheus-pushgateway	ClusterIP	10.109.177.196	<none>	9091/TCP	6m28s
prometheus-server	ClusterIP	10.97.117.14	<none>	80/TCP	6m28s
react	LoadBalancer	10.108.85.157	127.0.0.1	3001:30570/TCP	6d20h

```
gagandeepkaur@LAPTOP-S6L9EA8N:~$
```

```
gagandeepkaur@LAPTOP-S6L9EA8N:~$ kubectl expose service prometheus-server --type=NodePort --target-port=9090 --name=prometheus-server-ext
service/prometheus-server-ext exposed
gagandeepkaur@LAPTOP-S6L9EA8N:~$ kubectl port-forward prometheus-server-5c99dfc547-mmmps 9090
Forwarding from 127.0.0.1:9090 -> 9090
Forwarding from [::1]:9090 -> 9090
```

```
gagandeepkaur@LAPTOP-S6L9EA8N:~$ kubectl port-forward prometheus-alertmanager-0 9093
```

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Forwarding from 127.0.0.1:9093 -> 9093
Forwarding from [::1]:9093 -> 9093
```

```
gagandeepkaur@LAPTOP-S6L9EABN:~$ kubectl expose service grafana --type=NodePort --target-port=3000 --name=grafana-ext
service/grafana-ext exposed
gagandeepkaur@LAPTOP-S6L9EABN:~$ kubectl get secret --namespace default grafana -o jsonpath="{.data.admin-password}" | base64 --decode ; echo
Jky0EqMHmeZpyfJkNv8BkY8b4xNUwn0K44LSRty
gagandeepkaur@LAPTOP-S6L9EABN:~$ kubectl port-forward grafana-6b58d55dc6-vmqdc 3000
Error from server (NotFound): pods "grafana-6b58d55dc6-vmqdc" not found
gagandeepkaur@LAPTOP-S6L9EABN:~$ kubectl port-forward grafana-5fbf87bf74-wjfgk 3000
Forwarding from 127.0.0.1:3000 -> 3000
Forwarding from [::1]:3000 -> 3000
```

TSX index

Assignments - BLDG.SCALABLE x gagandeep2580/BCDV-4032-A x localhost 9090 - Yahoo India Si x Prometheus Time Series Collec x Alertmanager

localhost:9090/graph?g0.expr=&g0.tab=1&g0.display\_mode=lines&g0.show\_exemplars=0&g0.range\_input=1h

Prometheus Alerts Graph Status Help

☐ Use local time ☐ Enable query history ☒ Enable autocomplete ☒ Enable highlighting ☒ Enable inter

Expression (press Shift+Enter for newlines)

Table Graph

Evaluation time

No data queried yet

Add Panel

S&P 500 -0.20%

localhost:9093/#/alerts

Alertmanager Alerts Silences Status Settings Help

New Silence

Filter Group Receiver: All ☐ Silenced ☐ Inhibited

Custom matcher, e.g. env="production"

Expand all groups

No alert groups found



