

Tugas 2 Studi Kasus 1

1. Penjelasan Setup

- *helm* digunakan untuk *deploy stack* kube-prometheus-stack yang berisi *template chart* untuk Kubernetes, Prometheus, Grafana, Node Exporter dengan *namespace* monitoring.
- file *servicemonitor.yaml* digunakan untuk melakukan monitoring pada *service*, misal pada di *namespace* default.
- file *prometheusrule.yaml* digunakan untuk membuat *rule alert* pada Prometheus untuk mendeteksi *pod* dengan aktivitas CPU tinggi.
- file *alertmanager-config.yaml* digunakan untuk konfigurasi Alertmanager dalam mengirim *alert* ke Discord menggunakan *webhook*.
- Grafana digunakan untuk visualisasi *metrics* dari Prometheus.

2. File-file

a. file *prometheusrule.yaml*

```
! prometheusrule.yaml ●
! prometheusrule.yaml
1  apiVersion: monitoring.coreos.com/v1
2  kind: PrometheusRule
3  metadata:
4    name: high-cpu-alert
5    namespace: monitoring
6    labels:
7      release: kps
8      prometheus: kps-kube-prometheus-stack-prometheus
9  spec:
10   groups:
11     - name: pod-alerts
12       interval: 15s
13       rules:
14         - alert: HighCPUPod
15           expr: rate(container_cpu_usage_seconds_total{pod!=""}[1m]) > 0.8
16           for: 30s
17           labels:
18             severity: warning
19           annotations:
20             summary: "CPU Pod Tinggi"
21             description: "Pod {{ $labels.pod }} CPU > 80% selama 30 detik"
22
```

b. file *servicemonitor.yaml*

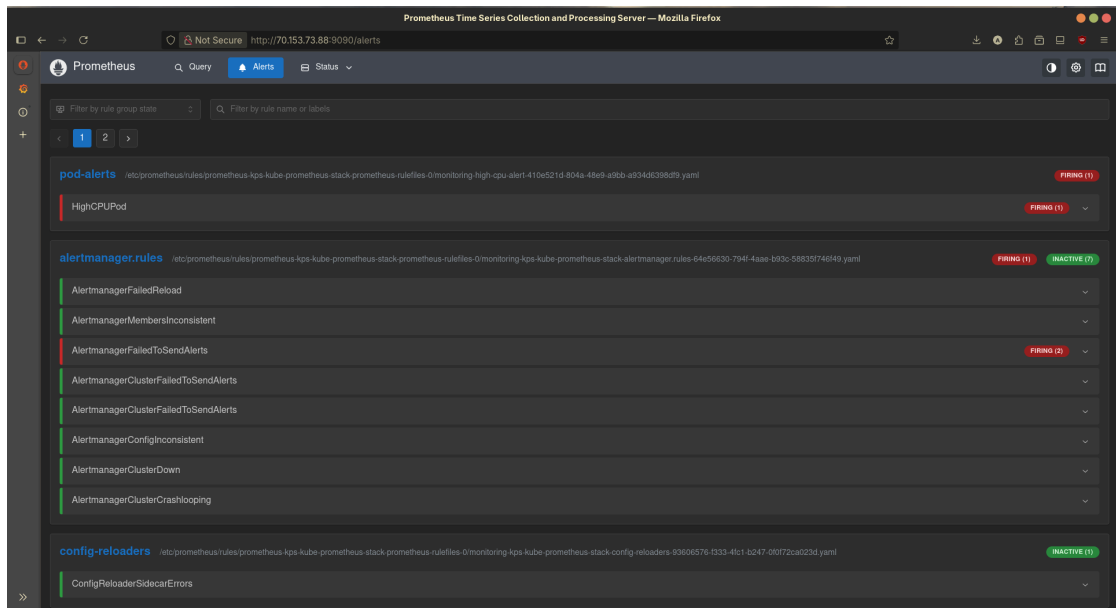
```
! prometheusrule.yaml x ! servicemonitor.yaml x
! servicemonitor Close (Ctrl+W)
1  apiVersion: monitoring.coreos.com/v1
2  kind: ServiceMonitor
3  metadata:
4    name: my-app-monitor
5    labels:
6      release: kps
7  spec:
8    selector:
9      matchLabels:
10       app: my-app
11    endpoints:
12     - port: http
13       interval: 15s
14    namespaceSelector:
15      matchNames:
16     - default
17
```

c. file *alertmanager.yaml*

```
1  apiVersion: v1
2  kind: Secret
3  metadata:
4    name: alertmanager-kps-kube-prometheus-stack-alertmanager
5    namespace: monitoring
6  type: Opaque
7  stringData:
8    alertmanager.yaml: |
9      global:
10       resolve_timeout: 5m
11
12     route:
13       receiver: 'discord'
14       group_by: ['alertname']
15       group_wait: 5s
16       group_interval: 10s
17       repeat_interval: 12h
18
19     receivers:
20     - name: 'discord'
21       slack_configs:
22       - api_url: 'https://discord.com/api/webhooks/1429790403426779198/t6LFTG6hAvq35AB4turLAXDoxOUvt94NnzXMI1KZN2YsZjRtOPNVFzwHauLMZDAFJosZ/'
23         send_resolved: true
24         title: '{{ .CommonLabels.alertname }}'
25         text: >-
26           {{ range .Alerts -}}
27             **Status:** {{ .Status }}
28             **Instance:** {{ .Labels.instance }}
29             **Summary:** {{ .Annotations.summary }}
30           {{ end }}
31
```

3. Dashboard Grafana dan Alert Aktif





4. Screenshot Discord

