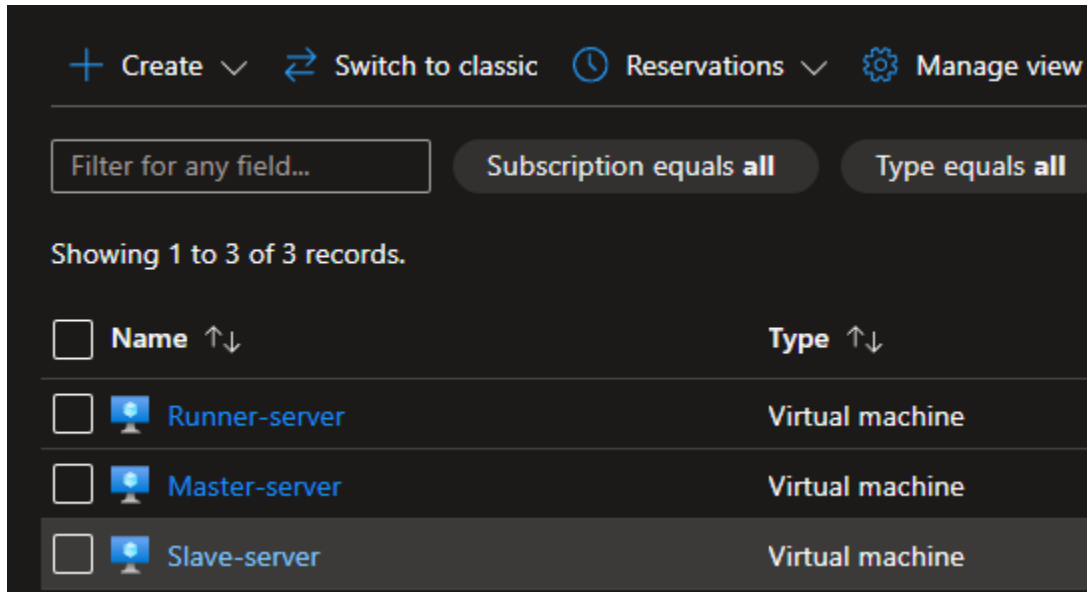


Boardgame- test

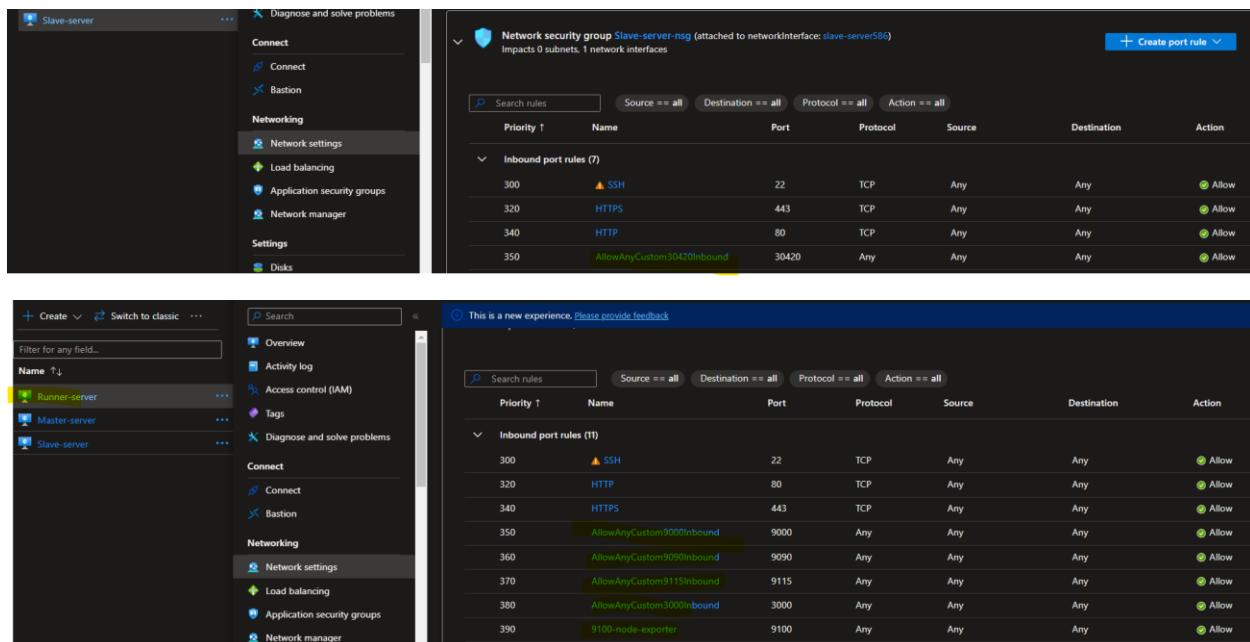
3 server we have to create.

Runner server is integrating with the GitHub as a runner server. All the other tool we have to install / configure here.



We have to open the some Ports for incoming and outgoing traffic.

Kubernetes are running on the slave server.



Master node we have to run the script and got the access token.

```
export KUBECONFIG=/etc/kubernetes/admin.conf

You should now deploy a pod network to the cluster.
Run "kubectl apply -f [podnetwork].yaml" with one of the options listed at:
https://kubernetes.io/docs/concepts/cluster-administration/addons/

Then you can join any number of worker nodes by running the following on each as root:

kubeadm join 10.0.0.4:6443 --token dabc5q.tykr26j72dukq651 \
--discovery-token-ca-cert-hash sha256:4c4f59a467151381e85de4b357f44d9e92287a6d26d59532c24fb136eb2c4b7e
poddissruptionbudget.policy/calico-kube-controllers created
serviceaccount/calico-kube-controllers created
```

Copy the token (yellow part) and past to the worker node. With root directory.

Sudo su

```
azadmin@VM02:~$ sudo su
root@VM02:/home/azadmin# kubeadm join 10.0.0.4:6443 --token dabc5q.tykr26j72dukq651 \
> --discovery-token-ca-cert-hash sha256:4c4f59a467151381e85de4b357f44d9e92287a6d26d59532c24fb136eb2c4b7e
[preflight] Running pre-flight checks
[preflight] Reading configuration from the cluster...
[preflight] FYI: You can look at this config file with 'kubectl -n kube-system get cm kubeadm-config -o yaml'
[kubelet-start] Writing kubelet configuration to file "/var/lib/kubelet/config.yaml"
[kubelet-start] Writing kubelet environment file with flags to file "/var/lib/kubelet/kubeadm-flags.env"
[kubelet-start] Starting the kubelet
[kubelet-start] Waiting for the kubelet to perform the TLS Bootstrap...

This node has joined the cluster:
```

Once the node has joined.

kubectl get nodes (type the command and check the answer).

Note – control-plane (master server/node), <none> is worker node.

```
azadmin@VM01:~$ kubectl get nodes
NAME     STATUS    ROLES    AGE   VERSION
vm01     Ready     control-plane  48m   v1.28.1
vm02     Ready     <none>      44m   v1.28.1
azadmin@VM01:~$
```

Installed maven (on runner server)

```
azadmin@VM03-R:~/actions-runner$ mvn

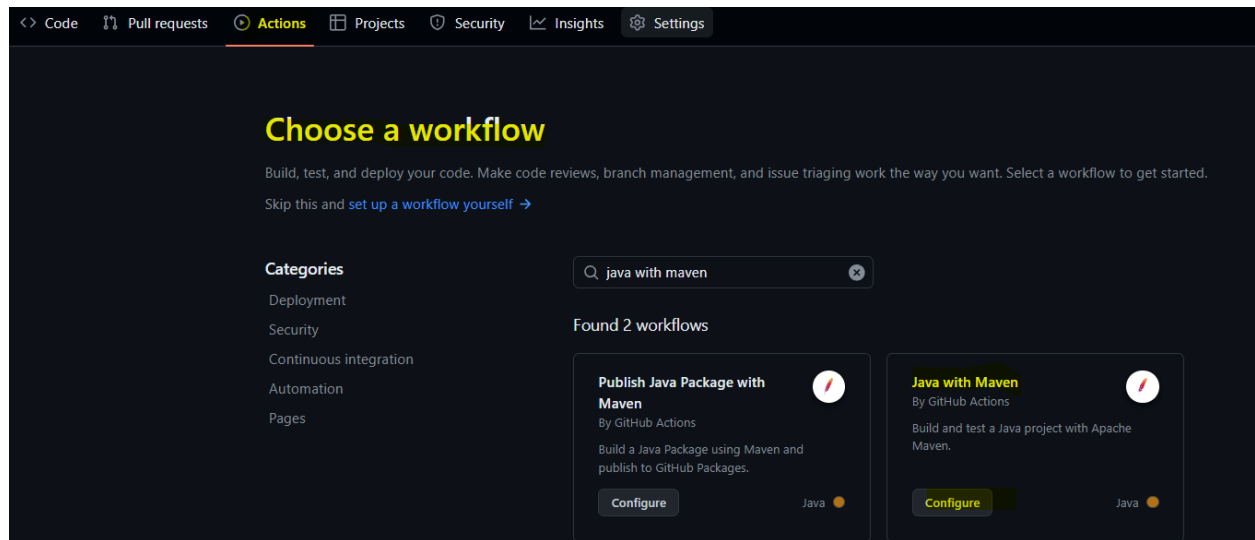
Command 'mvn' not found, but can be installed with:

sudo apt install maven

azadmin@VM03-R:~/actions-runner$ sudo apt install maven
```

Sudo apt install maven -y

Configure the below snap as per the requirement.



Note expoter – used for the system level monitoring

Blackbox monitoring – used for the website monitoring

Monitoring tools

<https://prometheus.io/download/>

wget (url as copy as address)

tar -xvf

mv (rename the file)

```

azadmin@Runner-server:~/monitoring$ ls
prometheus-2.51.1.linux-amd64.tar.gz
azadmin@Runner-server:~/monitoring$ tar -xvf prometheus-2.51.1.linux-amd64.tar.gz
prometheus-2.51.1.linux-amd64/
prometheus-2.51.1.linux-amd64/promtool
prometheus-2.51.1.linux-amd64/NOTICE
prometheus-2.51.1.linux-amd64/consoles/
prometheus-2.51.1.linux-amd64/consoles/prometheus.html
prometheus-2.51.1.linux-amd64/consoles/index.html.example
prometheus-2.51.1.linux-amd64/consoles/node-overview.html
prometheus-2.51.1.linux-amd64/consoles/node-cpu.html
prometheus-2.51.1.linux-amd64/consoles/node.html
prometheus-2.51.1.linux-amd64/consoles/prometheus-overview.html
prometheus-2.51.1.linux-amd64/consoles/node-disk.html
prometheus-2.51.1.linux-amd64/prometheus.yml
prometheus-2.51.1.linux-amd64/LICENSE
prometheus-2.51.1.linux-amd64/console_libraries/
prometheus-2.51.1.linux-amd64/console_libraries/prom.lib
prometheus-2.51.1.linux-amd64/console_libraries/menu.lib
prometheus-2.51.1.linux-amd64/prometheus
azadmin@Runner-server:~/monitoring$ ls
prometheus-2.51.1.linux-amd64 prometheus-2.51.1.linux-amd64.tar.gz
azadmin@Runner-server:~/monitoring$ rm prometheus-2.51.1.linux-amd64.tar.gz
azadmin@Runner-server:~/monitoring$ ls
prometheus-2.51.1.linux-amd64
azadmin@Runner-server:~/monitoring$ mv prometheus-2.51.1.linux-amd64/ prometheus
azadmin@Runner-server:~/monitoring$ ls
prometheus
azadmin@Runner-server:~/monitoring$ ls
prometheus
azadmin@Runner-server:~/monitoring$ cd prometheus/
azadmin@Runner-server:~/monitoring/prometheus$ ls
LICENSE NOTICE console_libraries consoles prometheus prometheus.yml promtool
azadmin@Runner-server:~/monitoring/prometheus$ ./prometheus -s

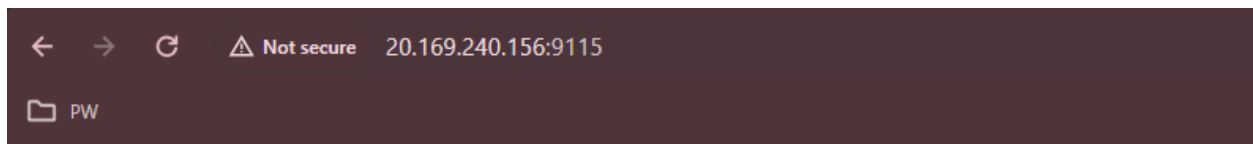
```

Same process for black box download.

```

azadmin@Runner-server:~/monitoring$ ls
blackbox_exporter-0.25.0.linux-amd64.tar.gz prometheus
azadmin@Runner-server:~/monitoring$ tar -xvf blackbox_exporter-0.25.0.linux-amd64.tar.gz
blackbox_exporter-0.25.0.linux-amd64/
blackbox_exporter-0.25.0.linux-amd64/NOTICE
blackbox_exporter-0.25.0.linux-amd64/blackbox_exporter
blackbox_exporter-0.25.0.linux-amd64/LICENSE
blackbox_exporter-0.25.0.linux-amd64/blackbox.yml
azadmin@Runner-server:~/monitoring$ ls
blackbox_exporter-0.25.0.linux-amd64 blackbox_exporter-0.25.0.linux-amd64.tar.gz prometheus
azadmin@Runner-server:~/monitoring$ rm blackbox_exporter-0.25.0.linux-amd64.tar.gz
azadmin@Runner-server:~/monitoring$ ls
blackbox_exporter-0.25.0.linux-amd64 prometheus
azadmin@Runner-server:~/monitoring$ mv blackbox_exporter-0.25.0.linux-amd64/ blackbox-tool
azadmin@Runner-server:~/monitoring$ ls
blackbox-tool prometheus
azadmin@Runner-server:~/monitoring$ cd blackbox-tool/
azadmin@Runner-server:~/monitoring/blackbox-tool$ ls
LICENSE NOTICE blackbox.yml blackbox_exporter
azadmin@Runner-server:~/monitoring/blackbox-tool$ ./blackbox_exporter &

```



Blackbox Exporter

[Probe.prometheus.io for http_2xx](#)

[Debug.probe.prometheus.io for http_2xx](#)

[Metrics](#)

[Configuration](#)

Recent Probes

Module	Target	Result	Debug
--------	--------	--------	-------

We have to configure

```
azadmin@Runner-server:~/monitoring$ cd prometheus/
azadmin@Runner-server:~/monitoring/prometheus$ ls
LICENSE  console  libraries  data      prometheus.yml
NOTICE   consoles  prometheus promtool
azadmin@Runner-server:~/monitoring/prometheus$ vi prometheus.yml
azadmin@Runner-server:~/monitoring/prometheus$
```

https://github.com/prometheus/blackbox_exporter/blob/master/README.md

```
scrape_configs:
  # The job name is added as a label 'job=<job_name>' to any timeseries scraped from this config.
  - job_name: "prometheus"

    # metrics_path defaults to '/metrics'
    # scheme defaults to 'http'.

    static_configs:
      - targets: ["localhost:9090"]
      - job_name: 'blackbox'
        metrics_path: /probe
        params:
          module: [http_2xx] # Look for a HTTP 200 response.
        static_configs:
          - targets:
            - http://prometheus.io # Target to probe with http.
            - http://172.172.146.253:30420 # Target to probe with https.
          # Target to probe with http on port 8080.
        relabel_configs:
          - source_labels: [__address__]
            target_label: __param_target
          - source_labels: [__param_target]
            target_label: instance
          - target_label: address
            replacement: 20.169.240.156:9115
```

server IP with port numbers

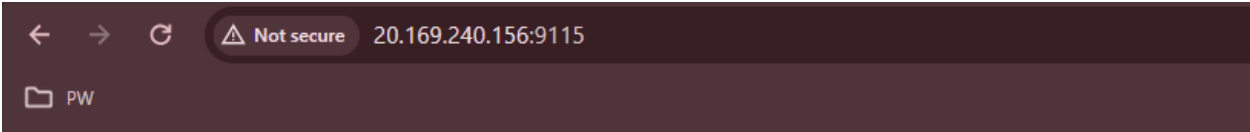
server IP

We have to restart the Prometheus

First, we have to kill it.

```
LICENSE console_libraries data prometheus.yml
NOTICE consoles prometheus promtool
azadmin@Runner-server:~/monitoring/prometheus$ vi prometheus.yml
azadmin@Runner-server:~/monitoring/prometheus$ pgrep prometheus
28730
azadmin@Runner-server:~/monitoring/prometheus$ kill 28730
azadmin@Runner-server:~/monitoring/prometheus$ ts=2024-04-09T17:18:23.819Z caller=main.go:964 level=warn msg="Received SIGTERM, exiting gracefully..."
```

Blackbox running



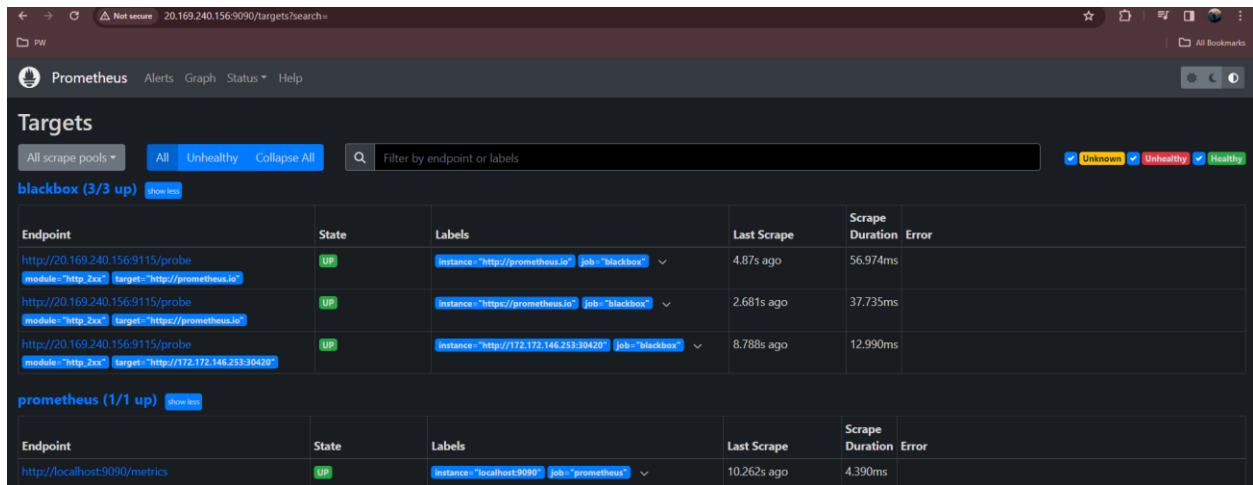
Blackbox Exporter

- [Probe prometheus.io for http_2xx](#)
- [Debug probe prometheus.io for http_2xx](#)
- [Metrics](#)
- [Configuration](#)

Recent Probes

Module	Target	Result	Debug
http_2xx	https://prometheus.io	Success	Logs
http_2xx	http://prometheus.io	Success	Logs
http_2xx	http://172.172.146.253:30420	Success	Logs
http_2xx	https://prometheus.io	Success	Logs
http_2xx	http://prometheus.io	Success	Logs
http_2xx	http://172.172.146.253:30420	Success	Logs
http_2xx	https://prometheus.io	Success	Logs
http_2xx	http://prometheus.io	Success	Logs
http_2xx	http://172.172.146.253:30420	Success	Logs
http_2xx	https://prometheus.io	Success	Logs
http_2xx	http://prometheus.io	Success	Logs
http_2xx	http://172.172.146.253:30420	Success	Logs
http_2xx	https://prometheus.io	Success	Logs
http_2xx	http://prometheus.io	Success	Logs
http_2xx	http://172.172.146.253:30420	Success	Logs
http_2xx	https://prometheus.io	Success	Logs

Prometheus running too



Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
blackbox (3/3 up)					
http://20.169.240.156:9115/probe <small>module="http_2xx" target="http://prometheus.io"</small>	UP	instance="http://prometheus.io" job="blackbox"	4.87s ago	56.974ms	
http://20.169.240.156:9115/probe <small>module="http_2xx" target="https://prometheus.io"</small>	UP	instance="https://prometheus.io" job="blackbox"	2.681s ago	37.735ms	
http://20.169.240.156:9115/probe <small>module="http_2xx" target="http://172.172.146.253:30420"</small>	UP	instance="http://172.172.146.253:30420" job="blackbox"	8.788s ago	12.990ms	
prometheus (1/1 up)					
http://localhost:9090/metrics	UP	instance="localhost:9090" job="prometheus"	10.262s ago	4.390ms	

Grafana

Note – get this result proper visualize format we can use Grafana.

<https://grafana.com/grafana/download>

copy the command to the runner server

```
Reading state information... Done
adduser is already the newest version (3.118ubuntu2).
adduser set to manually installed.
libfontconfig1 is already the newest version (2.13.1-2ubuntu3).
libfontconfig1 set to manually installed.
The following NEW packages will be installed:
  musl
0 upgraded, 1 newly installed, 0 to remove and 22 not upgraded.
Need to get 377 kB of archives.
After this operation, 790 kB of additional disk space will be used.
Get:1 http://azure.archive.ubuntu.com/ubuntu focal/universe amd64 musl amd64 1.1.24-1 [377 kB]
Fetched 377 kB in 0s (11.9 MB/s)
Selecting previously unselected package musl:amd64.
(Reading database ... 60810 files and directories currently installed.)
Preparing to unpack .../musl_1.1.24-1_amd64.deb ...
Unpacking musl:amd64 (1.1.24-1) ...
Setting up musl:amd64 (1.1.24-1) ...
Processing triggers for man-db (2.9.1-1) ...
azadmin@Runner-server:~/monitoring$ wget https://dl.grafana.com/enterprise/release/grafana-enterprise_10.4.1_amd64.deb
--2024-04-09 17:39:23-- https://dl.grafana.com/enterprise/release/grafana-enterprise_10.4.1_amd64.deb
Resolving dl.grafana.com (dl.grafana.com)... 146.75.38.217, 2a04:4e42:79::729
Connecting to dl.grafana.com (dl.grafana.com)|146.75.38.217|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 119738382 (114M) [application/octet-stream]
Saving to: 'grafana-enterprise_10.4.1_amd64.deb'

grafana-enterprise_10.4.1_amd64.deb 100%[=====]
2024-04-09 17:39:24 (280 MB/s) - 'grafana-enterprise_10.4.1_amd64.deb' saved [119738382/119738382]

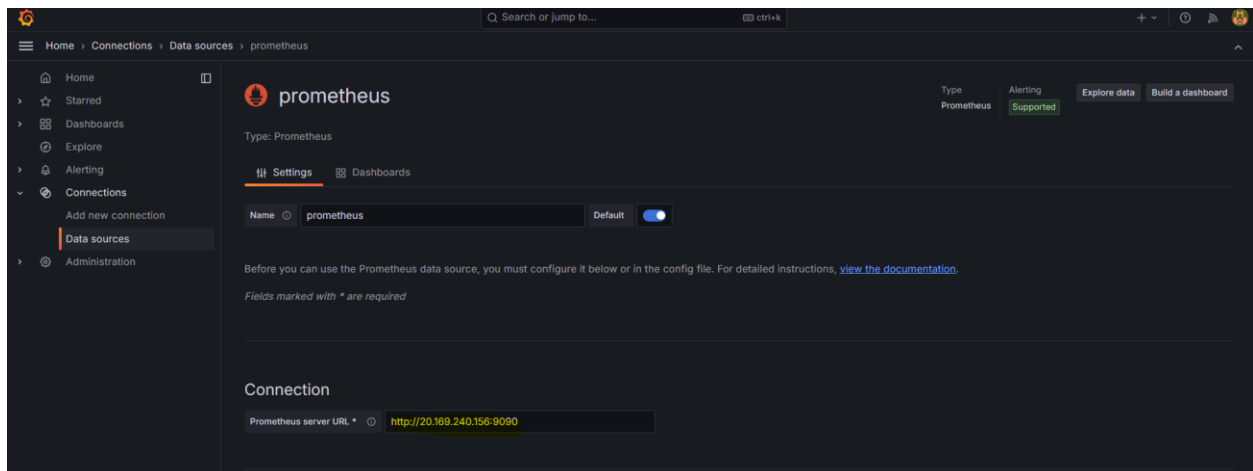
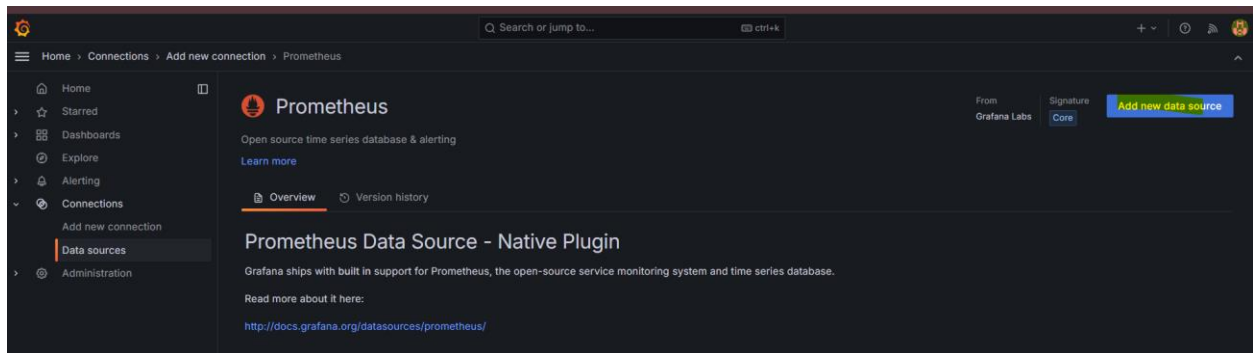
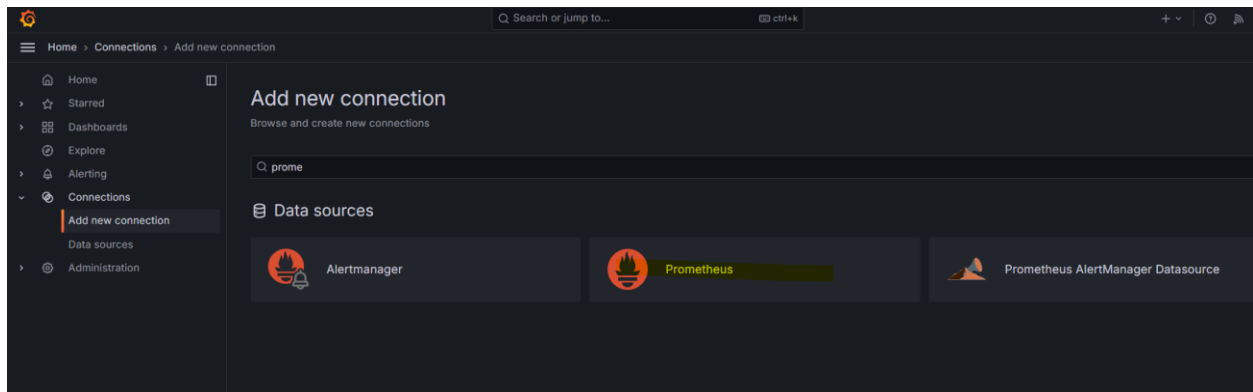
azadmin@Runner-server:~/monitoring$ sudo dpkg -i grafana-enterprise_10.4.1_amd64.deb
Selecting previously unselected package grafana-enterprise.
(Reading database ... 60823 files and directories currently installed.)
Preparing to unpack grafana-enterprise_10.4.1_amd64.deb ...
Unpacking grafana-enterprise (10.4.1) ...
Setting up grafana-enterprise (10.4.1) ...
Adding system user 'grafana' (UID 115) ...
Adding new user 'grafana' (UID 115) with group 'grafana' ...
Not creating home directory '/usr/share/grafana'.
### NOT starting on installation, please execute the following statements to configure grafana to start automatically using systemd
sudo /bin/systemctl daemon-reload
sudo /bin/systemctl enable grafana-server
### You can start grafana-server by executing
sudo /bin/systemctl start grafana-server
Processing triggers for systemd (245.4-4ubuntu3.23) ...
azadmin@Runner-server:~/monitoring$ sudo /bin/systemctl start grafana-server
azadmin@Runner-server:~/monitoring$
```

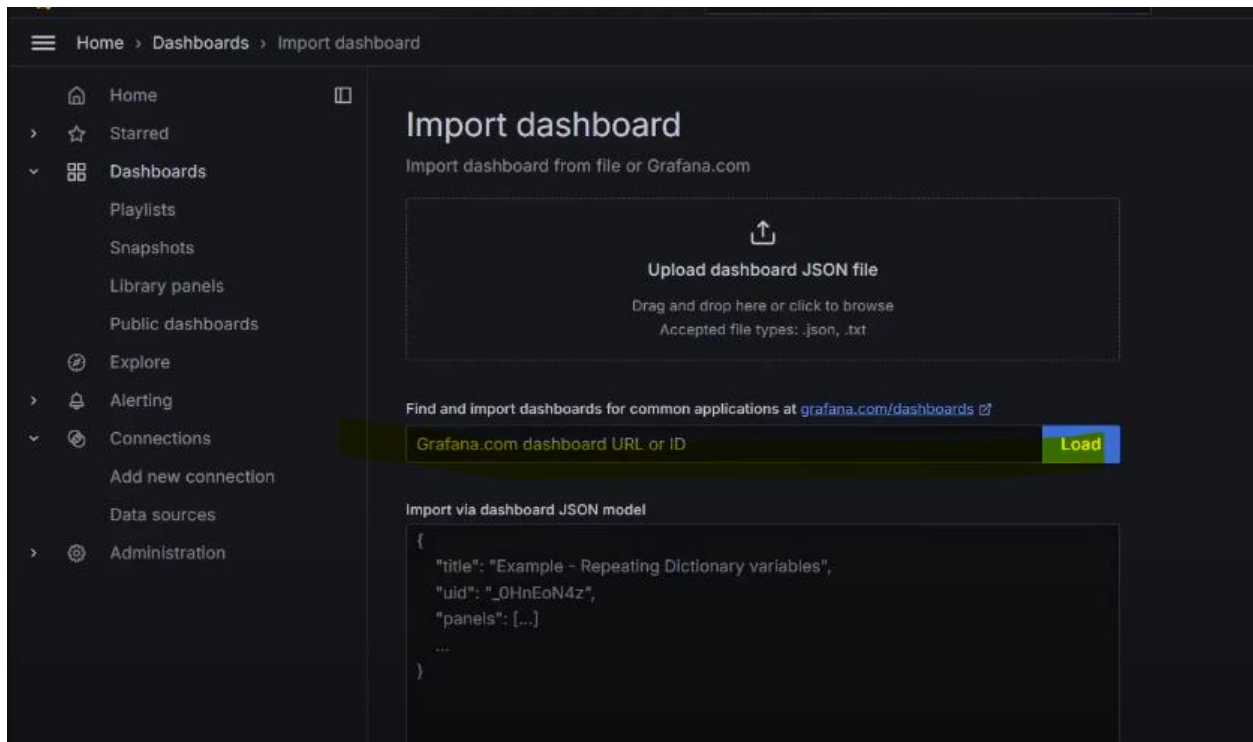
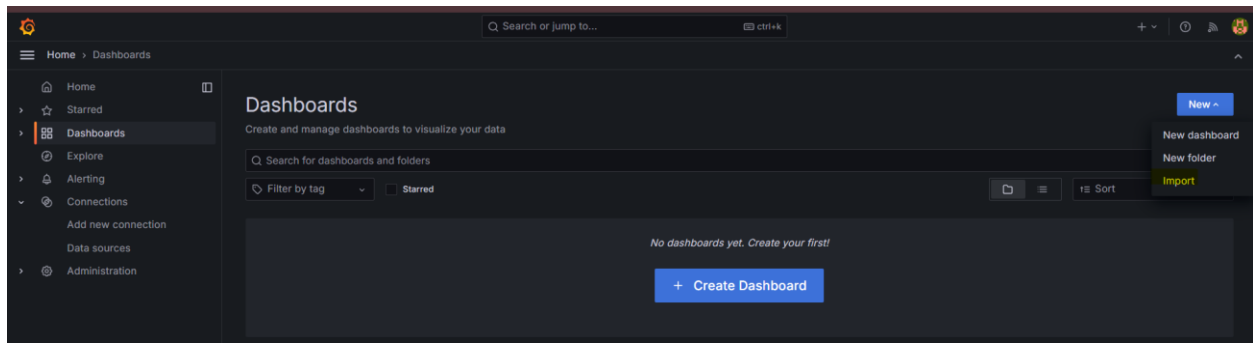
<https://grafana.com/grafana/download>
check the OS and install it.

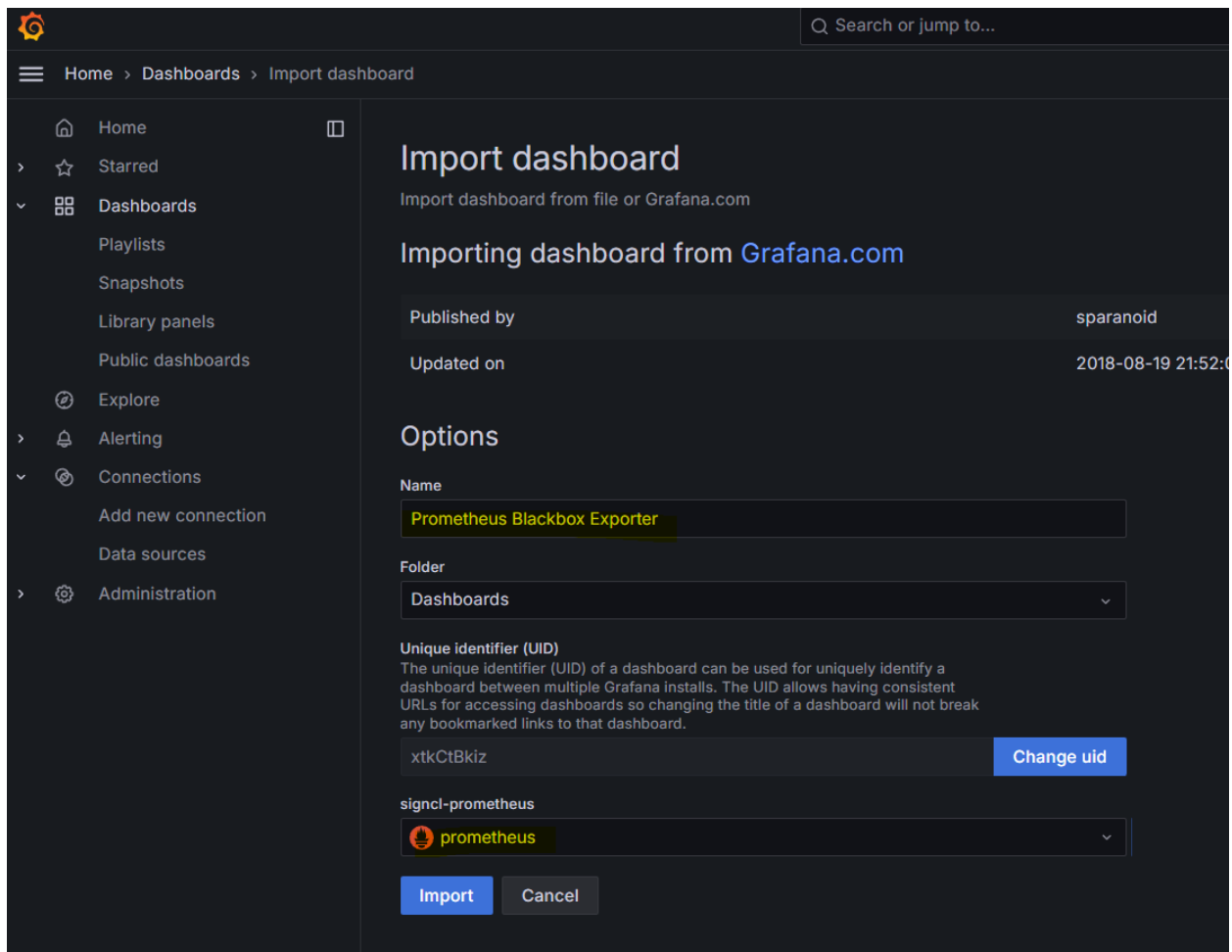
full installation process on Grafana, red color circle indicate the process to start the Grafana.
under the monitoring tool.

Check the runner IP with port 3000

We have to follow the below steps







Node exporter

```

azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter-1.7.0.linux-amd64.tar.gz prometheus
azadmin@Runner-server:~/monitoring$ tar -xvf node_exporter-1.7.0.linux-amd64.tar.gz
node_exporter-1.7.0.linux-amd64/
node_exporter-1.7.0.linux-amd64/LICENSE
node_exporter-1.7.0.linux-amd64/node_exporter
node_exporter-1.7.0.linux-amd64/NOTICE
azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter-1.7.0.linux-amd64 node_exporter-1.7.0.linux-amd64.tar.gz prometheus
azadmin@Runner-server:~/monitoring$ rm node_exporter-1.7.0.linux-amd64.tar.gz
azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter-1.7.0.linux-amd64 prometheus
azadmin@Runner-server:~/monitoring$ mv node_exporter-1.7.0.linux-amd64/ node_exporter
azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter prometheus
azadmin@Runner-server:~/monitoring$ cd node_exporter/
azadmin@Runner-server:~/monitoring/node_exporter$ ls
LICENSE NOTICE node_exporter
azadmin@Runner-server:~/monitoring/node_exporter$ ./node_exporter &

```

Runner server IP with port number 9100



Prometheus Node Exporter

Version: (version=1.7.0, branch=HEAD, revision=7333465abf9efba81876303bb57e6fadb946041b)

- [Metrics](#)

After write the yml code in the Prometheus.yml

write the command inside the prometheus.yml file

- job_name: 'node_exporter # your tool name

static_configs:

- targets: ['localhost:9100']

```

azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter prometheus
azadmin@Runner-server:~/monitoring$

```

Prometheus Alerts Graph Status ▾ Help

Targets

All scrape pools ▾ All Unhealthy Collapse All 🔍 Filter by endpoint or labels

blackbox (3/3 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://20.169.240.156:9115/probe <code>module="http_2xx" target="https://prometheus.io"</code>	UP	<code>instance="https://prometheus.io" job="blackbox"</code> ▾	10.13s ago	32.854ms	
http://20.169.240.156:9115/probe <code>module="http_2xx" target="http://172.172.146.253:30420"</code>	UP	<code>instance="http://172.172.146.253:30420" job="blackbox"</code> ▾	16.121s ago	10.306ms	
http://20.169.240.156:9115/probe <code>module="http_2xx" target="http://prometheus.io"</code>	UP	<code>instance="http://prometheus.io" job="blackbox"</code> ▾	11.425s ago	70.181ms	

node_exporter (1/1 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9100/metrics	UP	<code>instance="localhost:9100" job="node_exporter"</code> ▾	13.444s ago	12.130ms	

prometheus (1/1 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9090/metrics	UP	<code>instance="localhost:9090" job="prometheus"</code> ▾	17.595s ago	4.024ms	

Goto the Grafana

Grafana Search or jump to... 🔍 ctrl+k

Home > Dashboards

Dashboards

Create and manage dashboards to visualize your data

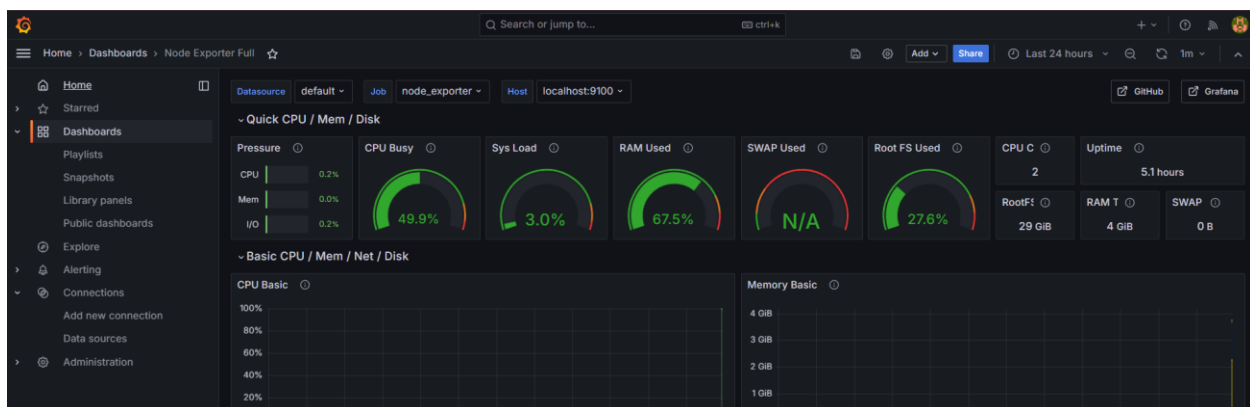
Search for dashboards and folders

Filter by tag ▾ ☐ Starred

Sort ▾

Name	Tags
Prometheus Blackbox Exporter	blackbox prometheus

[New](#)



What are we downloading the under the particular server.

Master server

```
azadmin@Master-server:~$ ls
1.sh 2.sh bind.yml cred.yml role.yml svc.yml
azadmin@Master-server:~$
```

Slave server

```
Last login: Tue Apr 9 13:56:47 2024 from 103.27.51.228
azaadmin@Slave-server:~$ ls
1.sh
azaadmin@Slave-server:~$
```

Runner

```
azadmin@Runner-server:~$ ls
actions-runner monitoring trivy.sh
azadmin@Runner-server:~$ cd monitoring/
azadmin@Runner-server:~/monitoring$ ls
blackbox-tool grafana-enterprise_10.4.1_amd64.deb node_exporter prometheus
azadmin@Runner-server:~/monitoring$
```

Projected output



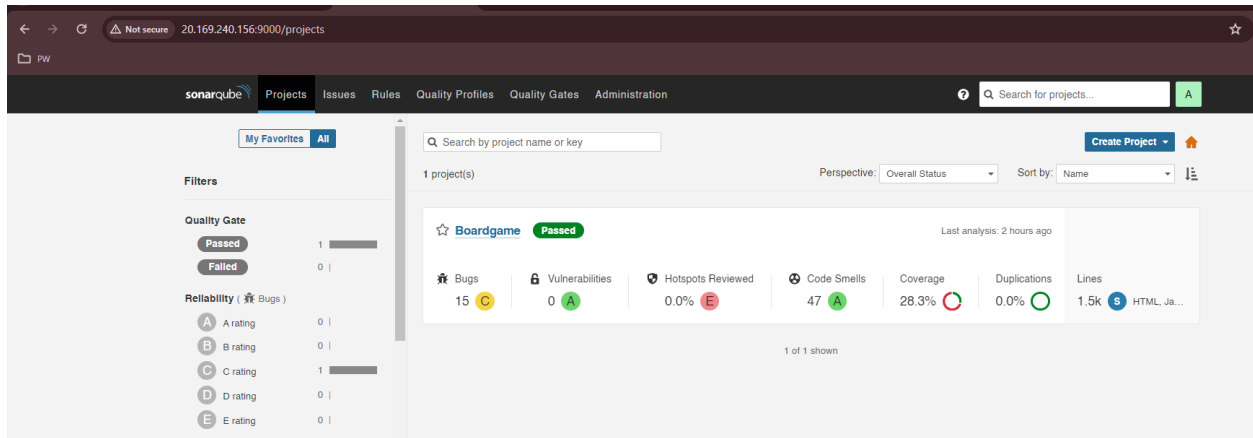
Boardgame Lists

Splendor

Clue

Linkee

SonarQube check



Error, we faced when setup the pipeline.

```
1.sh 2.sh
azadmin@Master-server:~$ ./2.sh
I0409 13:44:47.035989 17061 version.go:256] remote version is much newer: v1.29.3; falling back to: stable-1.28
[init] Using Kubernetes version: v1.28.8
[preflight] Running pre-flight checks
error execution phase preflight: [preflight] Some fatal errors occurred:
[ERROR Port-6443]: Port 6443 is in use
[ERROR Port-10259]: Port 10259 is in use
[ERROR Port-10257]: Port 10257 is in use
[ERROR FileAvailable--etc-kubernetes-manifests-kube-apiserver.yaml]: /etc/kubernetes/manifests/kube-apiserver.yaml already exists
[ERROR FileAvailable--etc-kubernetes-manifests-kube-controller-manager.yaml]: /etc/kubernetes/manifests/kube-controller-manager.yaml already exists
[ERROR FileAvailable--etc-kubernetes-manifests-kube-scheduler.yaml]: /etc/kubernetes/manifests/kube-scheduler.yaml already exists
[ERROR FileAvailable--etc-kubernetes-manifests-etcd.yaml]: /etc/kubernetes/manifests/etcd.yaml already exists
[ERROR Port-10250]: Port 10250 is in use
[ERROR Port-2379]: Port 2379 is in use
[ERROR Port-2380]: Port 2380 is in use
[ERROR DirAvailable--var-lib-etcd]: /var/lib/etcd is not empty
[preflight] If you know what you are doing, you can make a check non-fatal with '--ignore-preflight-errors=...'
To see the stack trace of this error execute with --v=5 or higher
cp: overwrite '/home/azadmin/.kube/config'? █
```