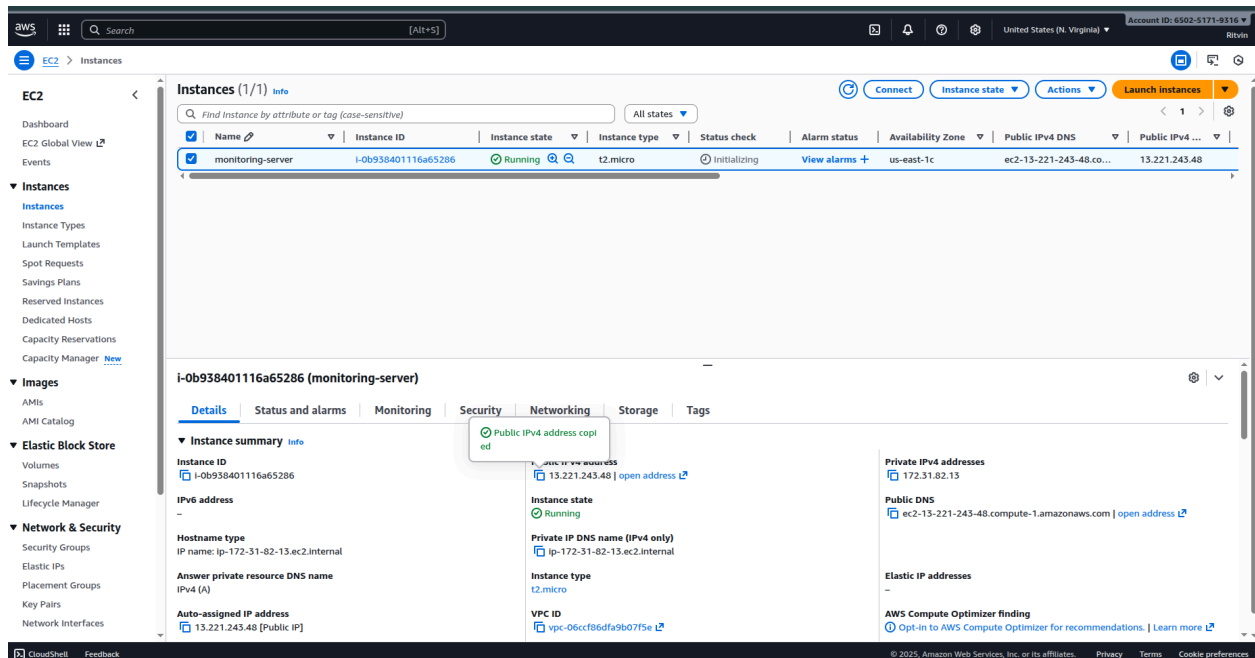


Monitoring Task

Task Description:

Install Prometheus and Grafana on a Linux EC2 machine, connect Prometheus to Grafana, and create a dashboard to view metrics.

EC2 instance:



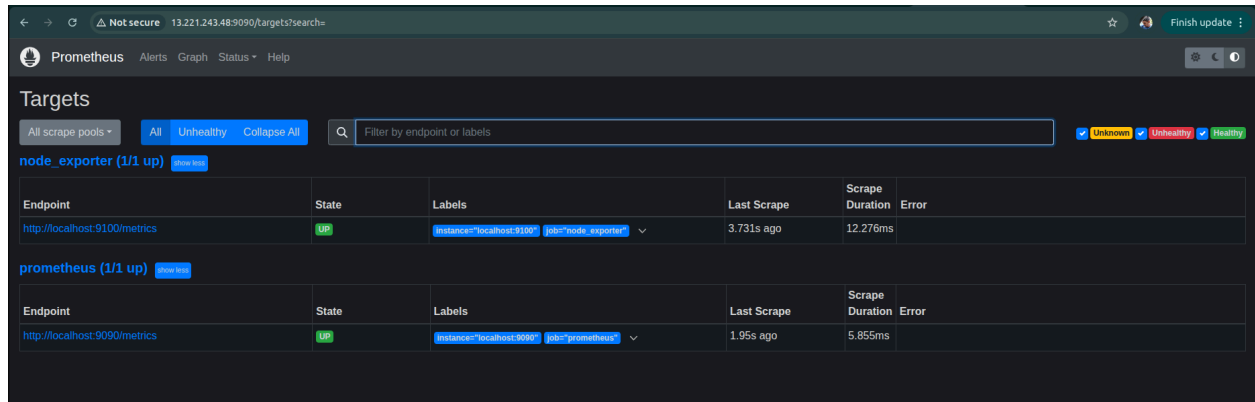
Prometheus Status:

```
ubuntu@ip-172-31-82-13:~$ systemctl status prometheus
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
   Active: active (running) since Thu 2025-10-30 05:35:09 UTC; 10min ago
     Main PID: 15634 (prometheus)
       Tasks: 0 (limit: 1121)
      Memory: 28.5M (peak: 40.9M)
         CPU: 603ms
    CGroup: /system.slice/prometheus.service
            └─15634 /opt/prometheus/prometheus --config.file=/opt/prometheus/prometheus.yml --storage.tsdb.path=/opt/prometheus/data

Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.250Z caller=head.go:690 level=info component=tsdb msg="Replaying WAL, this may take a while"
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.266Z caller=head.go:761 level=info component=tsdb msg="WAL segment loaded" segment=0 maxSegment=1
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.266Z caller=head.go:798 level=info component=tsdb msg="WAL segment loaded" segment=1 maxSegment=1
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.269Z caller=main.go:1045 level=info fs_type=Ext4_SUPER_MAGIC
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.269Z caller=main.go:1048 level=info msg="TSDB started"
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.269Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/opt/prometheus/prometheus.yml
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.275Z caller=main.go:1260 level=info msg="Completed loading of configuration file" filename=/opt/prometheus/prometheus.yml totalDuration=1.144s
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.275Z caller=main.go:1009 level=info msg="Server is ready to receive web requests."
Oct 30 05:35:09 ip-172-31-82-13 prometheus[15634]: ts=2025-10-30T05:35:09.275Z caller=manager.go:1012 level=info component="rule manager" msg="Starting rule manager..."

[lines 1-20/20 (END)]
```

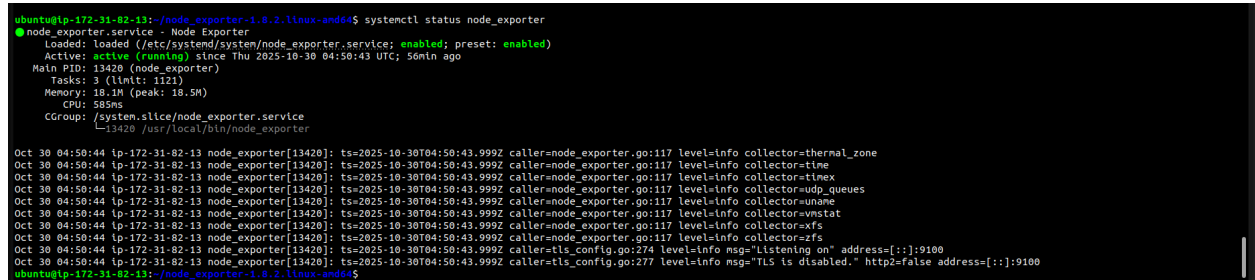
Prometheus Target:



The screenshot shows the Prometheus web interface. The 'Targets' tab is selected, displaying a table of scraped targets. Two targets are listed: 'node_exporter' and 'prometheus', both with a state of 'Up'.

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
node_exporter (1/1 up)					
http://localhost:9100/metrics	Up	instance="localhost:9100" job="node_exporter"	3.731s ago	12.276ms	
prometheus (1/1 up)					
http://localhost:9090/metrics	Up	instance="localhost:9090" job="prometheus"	1.95s ago	5.855ms	

Node Exporter Status:



```
ubuntu@ip-172-31-82-13:~/node_exporter-1.8.2.linux-amd64$ systemctl status node_exporter
● node_exporter.service - Node Exporter
   Loaded: loaded (/etc/systemd/system/node_exporter.service; enabled; preset: enabled)
   Active: active (running) since Thu 2025-10-30 04:58:43 UTC; 56min ago
     Main PID: 13420 (node_exporter)
        Tasks: 3 (limit: 1121)
       Memory: 18.1M (peak: 18.5M)
          CPU: 585ms
      CGroup: /system.slice/node_exporter.service
              └─13420 /usr/local/bin/node_exporter

Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=thermal_zone
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=sttine
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=sttine
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=udp_queues
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=uname
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=vmstat
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=xfs
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=node_exporter.go:117 level=info collector=zfs
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=tls_config.go:274 level=info msg="listening on" address=[::]:9100
Oct 30 04:50:44 ip-172-31-82-13 node_exporter[13420]: ts=2025-10-30T04:50:43.999Z caller=tls_config.go:277 level=info msg="TLS is disabled." http2=false address=[::]:9100
ubuntu@ip-172-31-82-13:~/node_exporter-1.8.2.linux-amd64$
```

Grafana:

