

1-what is different http status code and explain meaning of each of them?

- informational responses (100 – 199)
- Successful responses (200 – 299)
- Redirection messages (300 – 399)
- Client error responses (400 – 499)
- Server error responses (500 – 599)

2-What database is used by Prometheus?

PromQL

3-what is the difference between different metrics types (counter, gauge, histogram)

- counter: how many times x happened
- gauge: current value of x right now
- histogram: how long or how big is x

4-install Prometheus on your localhost or on server in any cloud provider

```
ahmed@ahmed:/tmp/prometheus-2.35.0.linux-amd64$ sudo systemctl status prometheus
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; disabled; preset: enabled)
   Main PID: 4427 (prometheus)
     Tasks: 8 (limit: 4578)
    Memory: 13.7M
       CPU: 145ms
   CGroup: /system.slice/prometheus.service
           └─4427 /usr/local/bin/prometheus --config.file /etc/prometheus/prometheus.yml --storage.tsdb.path /var/lib/prometheus/ --web

18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.203Z caller=head.go:493 level=info component=tsdb msg="Replaying on-disk m
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.204Z caller=head.go:536 level=info component=tsdb msg="On-disk memory map>
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.204Z caller=head.go:542 level=info component=tsdb msg="Replaying WAL, this
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.204Z caller=head.go:613 level=info component=tsdb msg="WAL segment loaded
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.205Z caller=head.go:619 level=info component=tsdb msg="WAL replay complet
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.208Z caller=main.go:978 level=info fs_type=EXT4_SUPER_MAGIC
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.208Z caller=main.go:981 level=info msg="TSDB started"
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.208Z caller=main.go:1162 level=info msg="Loading configuration file" file=
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.209Z caller=main.go:1199 level=info msg="Completed loading of configurati>
18:26:23 16 فبر ahmed prometheus[4427]: ts=2023-02-16T16:26:23.209Z caller=main.go:930 level=info msg="Server is ready to receive web re
ahmed@ahmed:/tmp/prometheus-2.35.0.linux-amd64$ sudo systemctl enable prometheus
Created symlink /etc/systemd/system/multi-user.target.wants/prometheus.service → /etc/systemd/system/prometheus.service.
ahmed@ahmed:/tmp/prometheus-2.35.0.linux-amd64$
```

5-Add any new target to Prometheus.yml file and apply any query on it using PromQL Language

```
- job_name: "prometheus"

  static_configs:
    - targets: ["localhost:9090"]

- job_name: "node-exporter"

  static_configs:
    - targets: ["localhost:9100"]
```

node_exporter_build_info

Table Graph Load time: 125ms

< Evaluation time >

node_exporter_build_info(branch="HEAD", goversion="go1.17.3", instance="localhost:9100", job="node-exporter", revision="a2321e7b940ddcf26873612bccdf7cd4c42b6b6", version="1.3.1")