what is difference http status code and explain meaning of each of them?

HTTP status codes are three-digit numbers that indicate the response status of an *HTTP request. They are grouped into five classes: informational responses (100–199), successful responses (200–299), redirects (300–399), client errors (400–499), and server errors (500–599).*

Here is a brief explanation of some of the most commonly used HTTP status codes:

- *200 OK: The request was successful.*
- *201 Created: The request was successful, and a resource was created.*
- *400 Bad Request: The request was malformed or invalid.*
- *401 Unauthorized: Authentication failed or user does not have permissions for the requested operation.*
- *404 Not Found: The requested resource does not exist on the server.*
- *500 Internal Server Error: An unexpected error occurred on the server.*

It's important to note that these are only a few examples of the many HTTP status codes available.

What database is used by Prometheus?

Prometheus is a time-series database that was developed in-house by the Prometheus team. It is written in Go and stores data in a custom format that is optimized for performance and scalability. Prometheus is designed to be highly reliable and fault-tolerant, with features like automatic data sharding and replication. In addition to its own database, Prometheus also supports other databases like Graphite, InfluxDB, and OpenTSDB via its remote_write API.

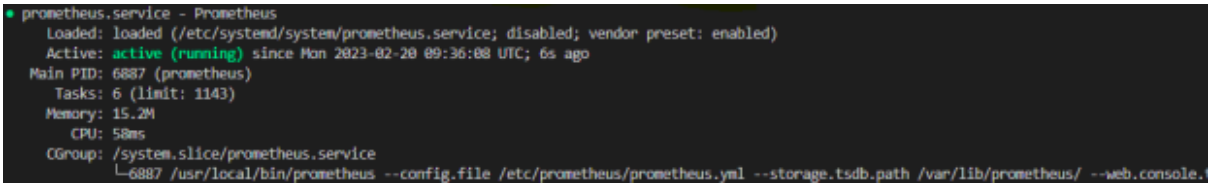
what is the difference between different metrics types (counter, gauge, histogram)?

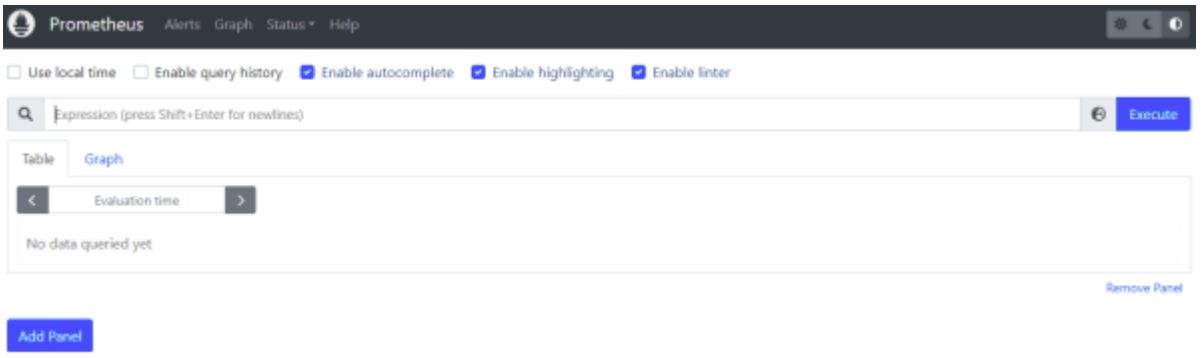
Counter: A counter is a metric that counts the number of events that occur over time. It is always increasing and never decreases. Examples include the number of requests processed, the number of errors occurred, etc.

Gauge: A gauge is a metric that represents a single numerical value that can go up or down over time. It measures the current state of a system or application. Examples include CPU usage, memory usage, etc.

Histogram: A histogram is a metric that samples observations and counts them in configurable buckets. It is used to measure the distribution of values in a stream of data. Examples include response times, request sizes, etc.

install prometheus on your localhost or on server in any cloud provider?





add any new target to prometheus.yaml file and apply any query on it using promql langauge?