

Lesson Description - Query Basics

Prometheus Query Language provides a robust interface for working with your metric data. In this lesson, we will introduce the basic concepts of writing Prometheus Queries. We will demonstrate these concepts by writing queries using the Prometheus Expression Browser.

Relevant Documentation

- [Querying Prometheus](#)

Lesson Reference

Access the Prometheus expression browser for your Prometheus server in a web browser. Be sure to use the public IP address of your Prometheus server:

```
http://<PROMETHEUS_SERVER_PUBLIC_IP>:9090
```

Run a simple query using a time-series selector:

```
node_cpu_seconds_total
```

Use a time-series selector with a label:

```
node_cpu_seconds_total{cpu="0"}
```

Run some queries to experiment with various types of label matching:

```
node_cpu_seconds_total{cpu="0"}
```

```
node_cpu_seconds_total{cpu!="0"}
```

```
node_cpu_seconds_total{mode=~"s.*"}
```

```
node_cpu_seconds_total{mode=~"user|system"}
```

```
node_cpu_seconds_total{mode!~"user|system"}
```

Use a range vector selector to select time-series values over a period of two minutes:

```
node_cpu_seconds_total{cpu="0"}[2m]
```

Select data from the past using an offset modifier:

```
node_cpu_seconds_total{cpu="0"} offset 1h
```

Combine a range vector selector with an offset modifier:

```
node_cpu_seconds_total{cpu="0"}[5m] offset 1h
```