Standing up a Prometheus Docker container

Start

Prometheus is a very popular monitoring and alerting solution that is capable of collecting and storing your microservice metrics so that later you can perform powerful queries on them. Prometheus is 100% open-source, it is community-driven and is part of the Cloud Native Foundation.

You can learn more about Prometheus at https://prometheus.io, where you'll find plenty of docs on the available features and how to get started.

It is very straightforward to run a Prometheus server in your box via Docker, and a simple configuration file. So, let's see how to integrate it and run it via our existing docker-compose file.

In Infra repo

1. Add a prometheus directory

2. Add otel.yml to the new dir:

```
global:
  scrape_interval: 10s
scrape_configs:
  - job_name: "otel"
    static_configs:
      - targets: ["host.docker.internal:5006"]
```

3. Add Prometheus to docker-compose.yml:

```
…
services:
  …

  prometheus:
    image: prom/prometheus
    container_name: prometheus
    ports:
      - 9090:9090
    volumes:
      - ./prometheus/otel.yml:/etc/prometheus/prometheus.yml
      - prometheusdata:/prometheus

volumes:
  …
  seqdata:
```

prometheusdata:

4. Start the Prometheus container:

docker-compose up -d

5. Try a couple of purchases in Frontend portal

6. Browse to the Prometheus portal at:
   http://localhost:9090

7. Browse to Status → Targets

8. Confirm the state of Trading microservice endpoint is **Up**

9. Search for PurchaseStarted or PurchaseSuccess

10. Switch to Graph

11. Notice metrics are reported to the graph

12. Purchase a different item

13. Notice new graph line

14. Search for http_server_duration_ms_count

15. Notice the reported metrics

16. Commit and push changes.

In the next lesson you will generalize your Prometheus configuration for all microservices.