Day24 Centralized Logging with ELK Stack.

Day 23 RBA using JWT. Enabling Actuators (Health Metrics), Centralized Logging using ELK Stack.

Prometheus & Grafana for Monitoring.

ELK Stack for Centralized Logging. (Elastic Search, Logstash, Kibana)

Add chrome extension modHeader.

Prometheus & Grafana (Monitoring & Alerting – Health Info,

* **Prometheus is a widely adopted open-source system**: designed for monitoring and alerting.
* It collects and stores metrics as time series data, associating metrics with a timestamp and key-value pairs called labels.
* It includes a powerful query language called [PromQL](https://www.google.com/search?cs=0&sca_esv=7b016402bb0bf89b&sxsrf=AE3TifMtNhXKEGr4fjmHaHx2r635KnKgCQ%3A1759313920123&q=PromQL&sa=X&ved=2ahUKEwjtyoWK44KQAxU9R2cHHSTUMRQQxccNegQIMBAB&mstk=AUtExfCyKCWwpJIfMXVoWYanJAEiyhDvIwkCkNrrK1TaRS-HSCQqvnRQInOg2JQ-wnWeItG3x2operrk4nXHfIPekgg2EFWMTQF5idJ_EHhjKIfA_6lVAPoO0cq9ruUrNiBNvHFlA_3he5EaiJ81mUHqqpx_GT0lOWrb7o1taQZmUr1IHxQ&csui=3" \t "_blank) for analyzing data, which can be used to generate graphs, tables, and alerts.
* The project is part of the Cloud Native Computing Foundation (CNCF) and has a large, active community.

<dependencies>  
 *<!-- Other dependencies -->*  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-actuator</artifactId>  
 </dependency>  
 <dependency>  
 <groupId>io.micrometer</groupId>  
 <artifactId>micrometer-registry-prometheus</artifactId>  
 <scope>runtime</scope>  
 </dependency>  
</dependencies>

management.endpoints.web.exposure.include=Prometheus

management.endpoint.prometheus.enabled=true  
management.metrics.export.prometheus.enabled=true

# Optional: Expose all actuator endpoints

# management.endpoints.web.exposure.include=\*

# Optional: Enable histogram metrics for better quantile calculation

# management.metrics.distribution.percentiles-histogram.http.server.requests=true

Prometheus.yml

scrape\_configs:  
 - job\_name: 'spring-boot-application'  
 metrics\_path: '/actuator/prometheus'  
 scrape\_interval: 3s  
 static\_configs:  
 - targets: ['localhost:8085']

<https://medium.com/@ksandeeptech07/integrating-prometheus-with-spring-boot-for-metrics-alerts-and-monitoring-5b2c31995ddb>

<https://www.tutorialworks.com/spring-boot-prometheus-micrometer/>

<https://prometheus.io/download/> (Run Prometheus.exe file after extracting the Zip)

<https://grafana.com/docs/grafana/latest/setup-grafana/installation/windows/>

scrape\_configs:

- job\_name: 'prometheus'

scrape\_interval: 5s

static\_configs:

- targets: ['localhost:9090']

- job\_name: 'spring-actuator'

metrics\_path: '/actuator/prometheus'

scrape\_interval: 2s

static\_configs:

- targets: ['localhost:8085']

labels:

group: 'test'