Prometheus Certified Associate (PCA) Exam Curriculum

A Cloud Native Computing Foundation (CNCF)

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Prometheus

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This document provides the curriculum outline of the Knowledge, Skills and Abilities that a Prometheus Certified Associate (PCA) can be expected to demonstrate.

PCA Curriculum

28% - PromQL

- Selecting Data
- Rates and Derivatives
- Aggregating over time
- Aggregating over dimensions
- Binary operators
- Histograms
- Timestamp Metrics

20% - Prometheus Fundamentals

- System Architecture
- Configuration and Scraping
- Understanding Prometheus Limitations
- Data Model and Labels
- Exposition Format

18% - Observability Concepts

- Metrics
- Understand logs and events
- Tracing and Spans
- Push vs Pull
- Service Discovery
- Basics of SLOs, SLAs, and SLIs

18% - Alerting & Dashboarding

- Dashboarding basics
- Configuring Alerting rules
- Understand and Use Alertmanager
- Alerting basics (when, what, and why)

16% - Instrumentation and Exporters

- Client Libraries
- Instrumentation
- Exporters
- Structuring and naming metrics

Prometheus

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Cloud native computing uses an open source software stack to deploy applications as microservices, packaging each part into its own container, and dynamically orchestrating those containers to optimize resource utilization. The Cloud Native Computing Foundation (CNCF) hosts critical components of those software stacks including Kubernetes, Fluentd, Linkerd, Prometheus, OpenTracing and gRPC; brings together the industry's top developers, end users, and vendors; and serves as a neutral home for collaboration. CNCF is part of The Linux Foundation, a nonprofit organization. For more information about CNCF, please visit: https://cncf.io/.