# Kubernetes (K8S) Practice Exam Blueprint \*

You will be working in a remote environment containing between 3 and 5 Kubernetes clusters

You are expected to demonstrate your knowledge gained during the course by utilizing the studied technologies

You will be asked to perform a set of tasks taken from the following categories

### Core Concepts

Demonstrate knowledge and readiness to work with various objects and tools:

* kubectl in interactive and declarative manner
* Pods, Services, and Deployments
* Namespaces, Labels, and Annotations

### Cluster Management

Demonstrate knowledge and readiness to work with basic clusters:

* Install and upgrade individual components
* Do basic troubleshooting and configuration

### Security and Policies

Demonstrate knowledge and readiness to work with resource management, network policies, and security control

* Resource Requirements, Limits and Quotas
* Network Policies
* Authentication, Authorization, and Admission Control

### Storage and Persistence

Demonstrate knowledge and readiness to work with storage and secret management

* Volumes and Volume Claims
* Stateful Sets
* Configuration Maps and Secrets

### Advanced Concepts

Demonstrate knowledge and readiness to work with advanced concepts like

* Multi-container Pods
* Autoscaling and Scheduling
* Daemon Sets, Jobs and Cron Jobs
* Ingress Resources and Controllers

### Observability and Troubleshooting

Demonstrate knowledge and readiness to work with logs and do entry level troubleshooting

* Health and Status Checks
* Logging and troubleshooting

### Templating Tools and Package Management

Demonstrate knowledge and readiness to work with templating tools and packages

* Templating tools
* Working with Helm and creating basic Charts

*\* Please note, that all sections may include or rely on commands and topics that are stated as* ***prerequisites*** *for the course*