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Advanced Kubernetes (Part 3)

Friday 6 December 2024 09:00 (3 hours)

The Kubernetes workshop covers essential topics for mastering scientific workflows in a cloud-native environment. Participants will learn how to schedule scientific workflows using Nextflow and Snakemake, as well as cloud-native workflow engines such as Argo Workflows on Kubernetes. The workshop will also dive into Kubernetes-based DevOps practices, explore GitOps principles for automating deployments via CI/CD pipelines, and gain hands-on experience deploying and scaling production workloads in Kubernetes. In addition, the workshop will cover the latest updates to Kubernetes, with a particular focus on use of new networking techniques such as the Gateway API, TCP/UDP services, and load balancing.

By the end of the workshop, attendees will have a deep understanding of how to streamline scientific use cases with K8s, including workflows, automating deployments, and using Kubernetes environments for production operations.

Requirements: Have an understanding of the basics of Kubernetes