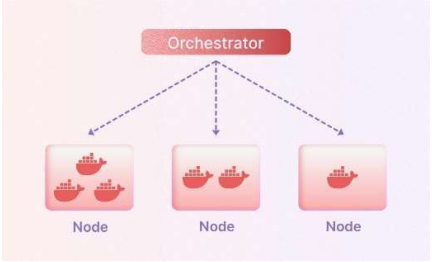
Containers and Orchestration



1. Q: What are containers in the context of DevOps?

Answer: Containers are lightweight, portable, and self-sufficient environments that include the application and its dependencies, allowing it to run consistently across different computing environments.

2. Q: What is Docker, and how does it relate to DevOps?

Answer: Docker is a platform that uses containerization technology to package applications and their dependencies into containers. It helps achieve consistency across multiple development, testing, and production environments.

3. Q: Explain the role of Kubernetes in DevOps.

Answer: Kubernetes is an open-source container orchestration platform that automates the deployment, scaling, and management of containerized applications. It helps manage complex containerized environments efficiently.

4. Q: What is a Dockerfile?

Answer: A Dockerfile is a text file that contains a set of instructions for building a Docker image. It specifies the base image, application code, dependencies, and any configuration needed to create the image.

5. Question: How does Kubernetes handle container scaling?

Answer: Kubernetes uses a component called the Horizontal Pod Autoscaler (HPA) to automatically scale the number of pod replicas based on CPU utilization or other select metrics. This helps maintain application performance under varying loads.

Satyajit Barik