what Kubernetes doesn’t do

Kubernetes doesn't restrict the types of supported applications. It aims to accommodate diverse workloads, including stateless, stateful, and data-processing applications, as long as they can run in a container.

Kubernetes doesn't deploy source code or build applications. Continuous Integration, Delivery, and Deployment workflows are determined by organizational preferences and technical requirements.

It doesn't offer built-in application-level services like middleware, data-processing frameworks, databases, caches, or cluster storage systems. Such components can run on Kubernetes or be accessed by applications through portable mechanisms.

Kubernetes doesn't dictate specific solutions for logging, monitoring, or alerting. It provides integrations as proof of concept and mechanisms to collect and export metrics.

It doesn't provide or mandate a specific configuration language/system. Instead, it offers a declarative API that can be targeted by various forms of declarative specifications.

Kubernetes doesn't offer comprehensive machine configuration, maintenance, management, or self-healing systems.

Alternatives to Kubernetes for container orchestration:

Docker Swarm: is built into the Docker Engine. It is lightweight and easy to use, but may not have all the features of Kubernetes.

Docker Compose - for defining and running multi-container Docker applications. It is not as powerful as Kubernetes or Docker Swarm, but can be useful for simple applications.

Apache Mesos: A general-purpose cluster manager. be used for container orchestration. It is highly scalable and can manage both containerized and non-containerized workloads.

Amazon ECS: is integrated with other AWS services. Easy to use and has good scalability, but may not have all the features of Kubernetes.

Azure Container Service: Microsoft's. Supports both Kubernetes and Docker Swarm. It is easy to use and has good integration with other Azure services.

Nomad: From Hashi Corp, which supports both containerized and non-containerized workloads. It is easy to use and has good integration with other Hashi Corp tools.

OpenShift: From Red Hat, which is built on top of Kubernetes. It adds features such as image registry, build automation, and deployment automation.

Rancher: For running containers in production, which includes a container orchestration engine (either Kubernetes or Docker Swarm), a multi-host Docker environment, and a central management console.

Helios: From Spotify, designed for deploying and managing large-scale containerized applications. open source and has good scalability, but may not have all the features of Kubernetes.

Jenkins X: A project from Jenkins. makes it easier to develop, build, and deploy cloud-native applications. It includes a container orchestration engine (either Kubernetes or Docker Swarm), a continuous integration and continuous delivery (CI/CD) pipeline, and a developer workflow.