Docker vs. Kubernetes

Today, both Docker and Kubernetes are leading container orchestration tools in the DevOps lifecycle. Docker uses a containerization platform for configuring, building, and distributing containers, while Kubernetes is an Ecosystem for managing a cluster of Docker containers.

Since Docker and Kubernetes are much similar to each other, so before knowing the difference between Docker and Kubernetes, first, you should know about what is Docker? And what is Kubernetes?

What is Docker?

Docker provides a **containerization platform** which supports various operating systems such as Linux, Windows, and Mac. It allows us to easily build applications, package them with all required dependencies, and ship it to run on other machines. The advantage of using Docker is that it provides benefits for both developers as well as a system administrator. For develops it focuses on writhing the code without worrying about the system. For a system administrator, it provides flexibility to reduces the number of systems for testing the applications.

Docker includes various features such as easy and faster configuration, manages security, use Swarm, routing mesh, application isolation, and increase productivity.

The below table shows the difference between Docker and Kubernetes -

Docker	Kubernetes
Docker is developed by **Docker Inc**.	Kubernetes is developed by **Google**.
It was first released in **2013**.	It was first released in **2014**.
It is a container based technology used to create isolated environment for applications.	It is an infrastructure for managing multiple containers.
It allows us to use **third-party tools** like ELK for logging and monitoring.	It allows us to use **in-built tools** for logging and monitoring.

Its public cloud service provider is **only Azure**.	Its public cloud service providers are **Google**, **Azure**, and **AWS**.
It is **less customizable**.	It is **highly customizable**.
Its container limit is **95000**.	Its container limit is **300000**.
It is **easy** to install.	It is **complex** to install.
It **cannot** do **auto-scaling.**	It can **do auto-scaling**.
It **does not** provide any **dashboard.**	It provides a **Web UI dashboard**.