GRADUATE & PROF SKILL DEVELOPMENT

ANNOTATIONS, SUMMARY & REFERING A SOURCE

Week 3 – Lab 5B

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SUMMER-2

ANNOTATIONS:

- Cloud computing aids in the development of scalable, adaptable, and resilient distributed systems.
- A code-centric approach and sound software engineering principles are brought by DevOps.
- Software is deployed and operated in compact, standardized, self-contained units using containers. Containerized microservices are connected through Kubernetes.
- The de facto industry-standard container orchestration system is Kubernetes.
- Cloud native is cloud-based, containerized, and controlled dynamically by automated infrastructure as code.

SUMMARY:

The core DevOps ideas have been well understood and broadly embraced in the world of IT operations, but things are now shifting. Kubernetes is a brand-new application platform that is being quickly embraced by businesses across the globe and in a wide range of various industries. People are questioning how to perform DevOps in this new environment as more and more applications and businesses switch from traditional servers to the Kubernetes environment.

Software must be deployed along with all of its dependencies, including libraries, interpreters, sub-packages, compilers, extensions, and so forth. Additionally, you need it configured. Settings, site-specific information, license keys, database passwords—all the things that transform unfinished software into a service that others can use.

From an operations perspective, you not only need to manage a fleet of servers to host these various sorts of packages, but you also need to manage the packages themselves. Servers require provisioning, networking, deployment, configuration, security patch maintenance, monitoring, management, and other tasks. Just creating a platform to run software on all of this takes a lot of time, expertise, and effort.

The Kubernetes core includes some of these functionalities, such as load balancing and autoscaling, while third-party add-ons, extensions, and tools that use the Kubernetes API provide others. The Kubernetes ecosystem is substantial and expanding rapidly.

CRITIQUE REVIEW:

A true industry revolution has begun with Kubernetes. The way applications are created and run has changed as a result of Kubernetes. It is now a crucial part of the DevOps industry. Kubernetes gives operations independence and flexibility to developers. Kubernetes is currently available for use on all major cloud providers, bare-metal on-premises settings, and local development machines. Like Linux is in the realm of operating systems, Kubernetes became an industry standard due to its stability, versatility, a potent API, open source, and an open developer community.

BIBLIOGRAPHY

- Ihor Dvoretskyi Developer Advocate, Cloud Native Computing Foundation December 2018

Kubernetes is not just yet another exciting tool; it is an industry standard and the foundation for next-generation technologies including serverless (OpenFaaS, K-native) and machine learning (Kubeflow) tools.

- Supplemental material (code examples, exercises, etc.) is available for download at https://github.com/cloudnativedevops/demo

- For more information, please visit http://oreilly.com/safari

-John Arundel & Justin Domingus , O'REILLY Cloud Native DevOps with Kubernetes Building, Deploying, and Scaling Modern Applications in the Cloud