DevOps

Caltech | Center for Technology & Management Education

Post Graduate Program in DevOps

simplilearn

DevOps

Caltech | Center for Technology & Management Education

Certified Kubernetes Administrator

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Course Introduction

Prerequisites

Prerequisite

Here is the prerequisite for this course. Please ensure that the fundamentals of the prerequisite are clear.

Linux

Introduction to Kubernetes

What Is Kubernetes?

Kubernetes is a portable, extensible, and open-source platform for managing containerized workloads and services, and which facilitates declarative configuration and automation.

History

Kubernetes was turned over to Cloud Native Computing Foundation (CNCF) for open sourcing in 2014.

Kubernetes was an internal project in Google.

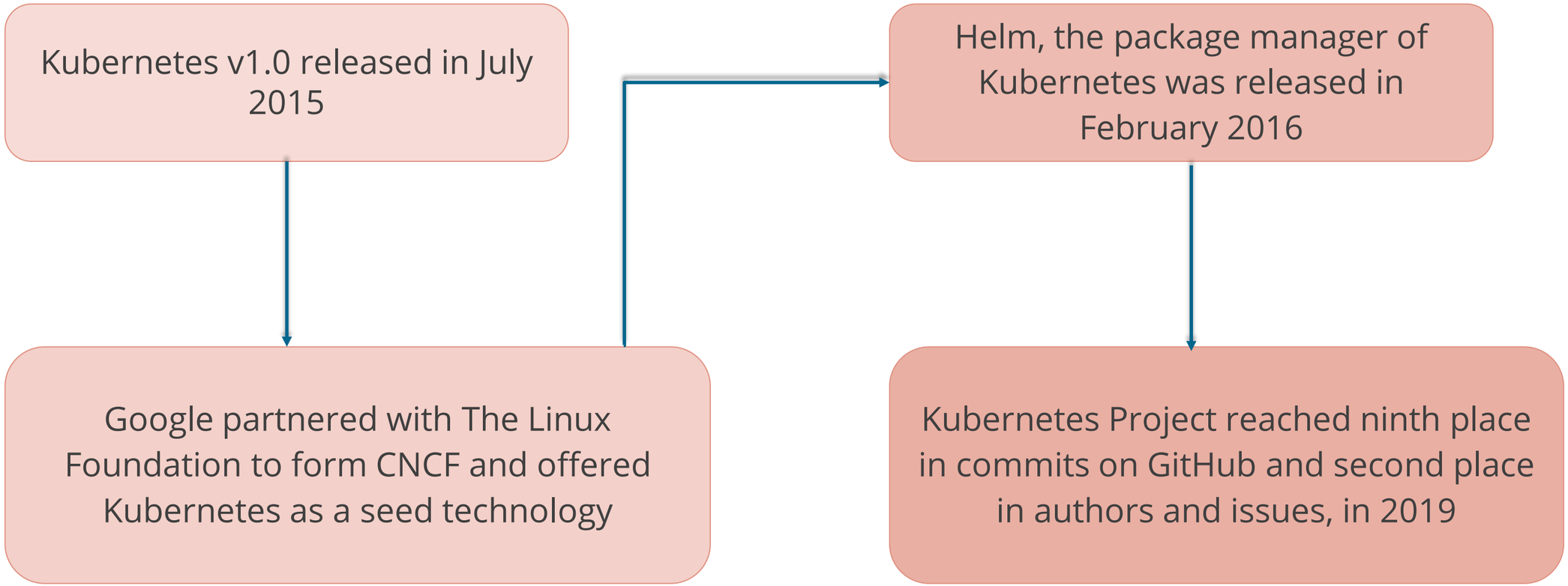
History

The original Borg project was written entirely in C++

Original codename within Google was Project 7

The seven spokes on the wheel of the logo are a reference to Project 7 codename

Kubernetes Timeline



Kubernetes Practice

Kubernetes provides a framework for running distributed systems strongly.

Containers help to bundle and run applications. Manage Containers in order to avoid downtime.

Benefits of Kubernetes

Agile application creation and deployment

Continuous development, integration, and deployment

Application-centric management

Resource isolation and utilization

Cloud and OS distribution portability

Loosely coupled, distributed, elastic, and liberated micro-services

Skills Acquired

- Cluster Architecture
- Workloads and Services
- Load Balancing and Scheduling
- Storage Handling
- Configuration and Security
- Troubleshooting Clusters
- Azure Kubernetes Service

CKA and Its Importance

CKA

In collaboration with The Linux Foundation, the Cloud Native Computing Foundation (CNCF) created The Certified Kubernetes Administrator (CKA) to help develop the Kubernetes ecosystem.

Why CKA

Has the highest velocity open-source projects

Is committed to growing the community of Kubernetes administrators

Sees continued growth across the broad set of companies and organizations that are using Kubernetes

Certification

Certification is a key step in the process. Certified administrators can quickly establish their credibility and value in the job market.

Overview of CKA Program

After completing the certification program offered by the Cloud Native Computing Foundation, users can demonstrate their competence in a hands-on and command-line environment.

The CKA program and the Kubernetes Certified Service Provider (KCSP) program are separate.

CKA doesn’t need KCSP

CNCF

For the benefit of companies offering training, CNCF has open-sourced the curriculum around which the CKA exam has been developed.

For more information, please contact trainingpartners@cncf.io

Exam Details

The focus of the certification program is on the skills required to be a successful Kubernetes Administrator in the industry. General domain includes:

Domain/Concept	Percentage Coverage in the CKA Exam
Cluster Architecture, Installation, and Configuration	25%
Workloads and Scheduling	25%
Services and Networking	20%
Storage	20%
Troubleshooting	30%

Cost

The cost involved is $300 and includes one free retake.

Quarterly exam updates are planned to match Kubernetes releases.

Check out with the CNCF regularly to get up-to-date information on the certification examination.

Learning Path

Course Outline

01 Course Introduction

02 Introduction to Kubernetes

03 Kubernetes Core Concepts

04 Clusters

05 Workloads

Course Outline

06 Scheduling

07 Services, Load Balancing, and Networking

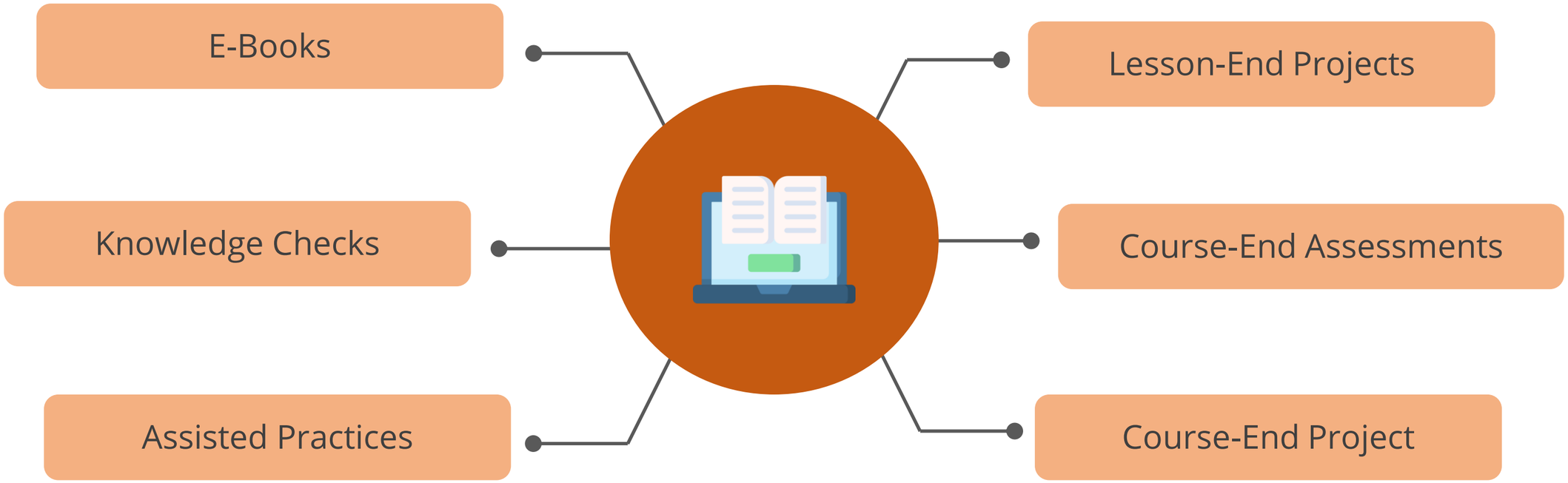
08 Storage

09 Troubleshooting

Course Components

Course Components

Simplilearn's comprehensive learning platform will provide you an in-depth understanding of the key concepts with the help of the following course components:



Course Completion Criteria

Complete 85% of Online Self Learning or attend one complete batch of Live Virtual Classes

Complete Course-end assessment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Get Certified. Get Ahead.