

TECHNOLOGY



Container Orchestration using Kubernetes

TECHNOLOGY

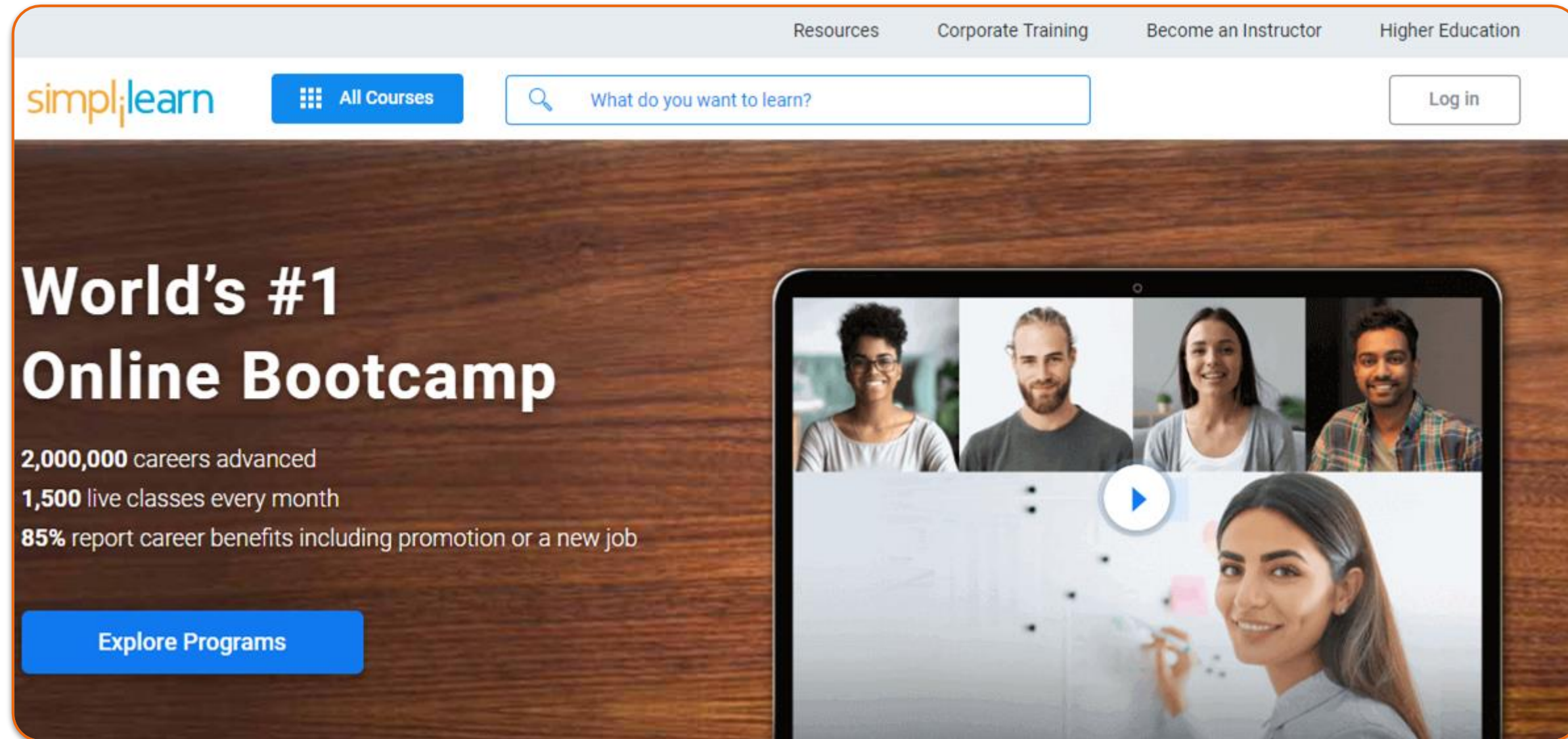
Course Introduction

TECHNOLOGY

About Simplilearn

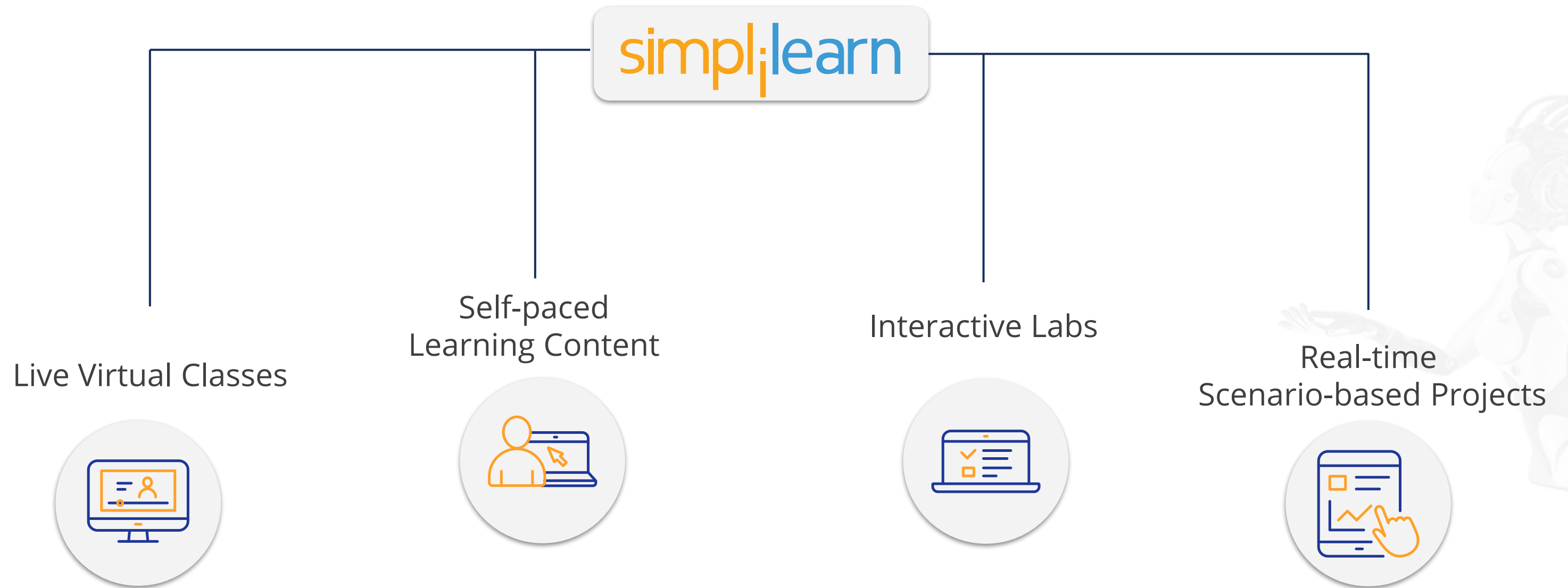
About Simplilearn

For over a decade now, Simplilearn is focused on digital economy skills.
Now, Simplilearn has become the **World's #1 Online Bootcamp**.



Simplilearn

At Simplilearn, we provide:



Prerequisites

Prerequisite

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



Linux



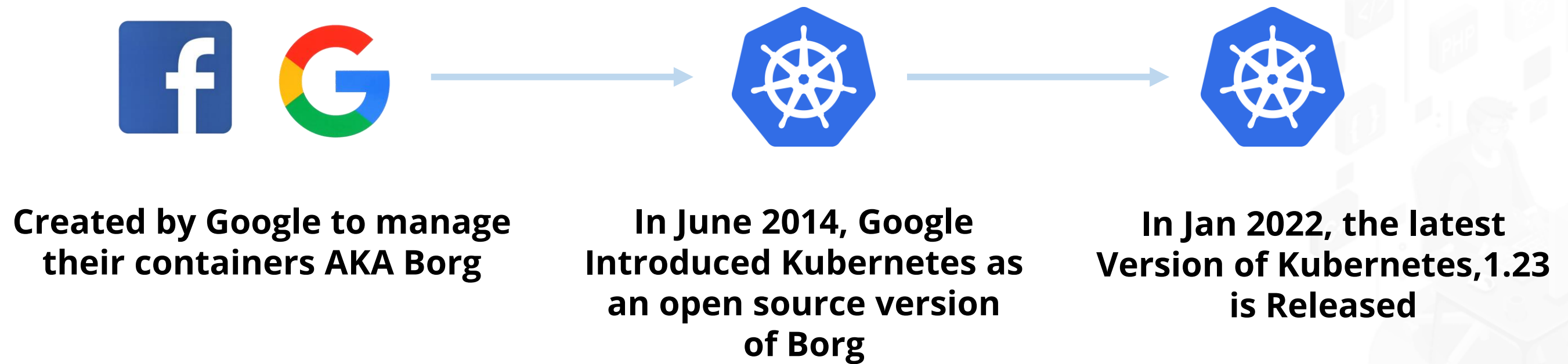
Introduction to Kubernetes

What is Kubernetes?

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



History



History

The original Borg project was written entirely in C++.

The 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

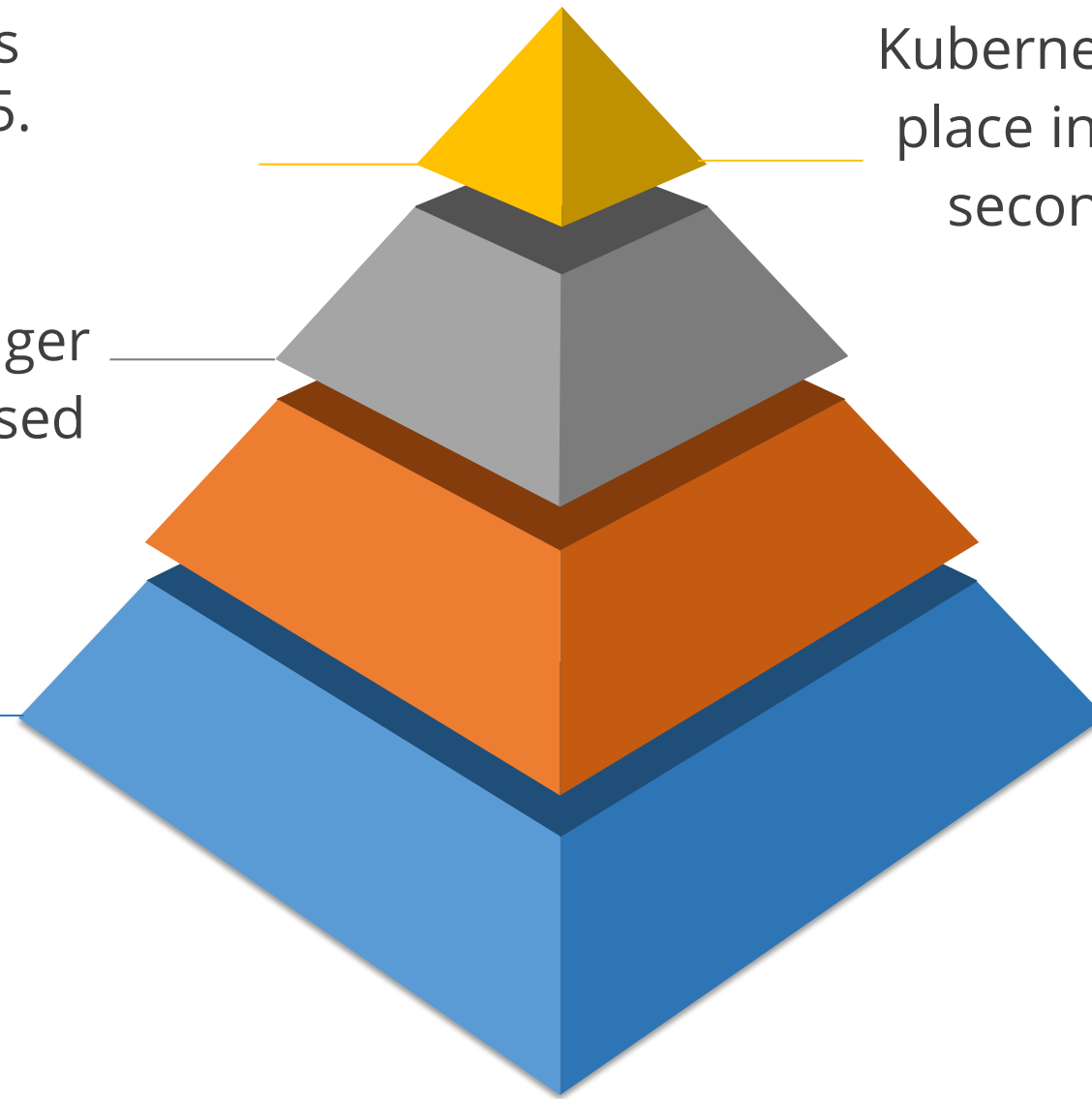
Kubernetes v1.0 was released in July 2015.

Kubernetes Project reached ninth place in commits on GitHub and second place in authors and issues, in 2019.

Helm, the package manager of Kubernetes was released in February 2016.

Google partnered with the Linux Foundation to form CNCF and offered Kubernetes as a seed technology.

Kubernetes has released the latest version 1.23 in Jan 2022.



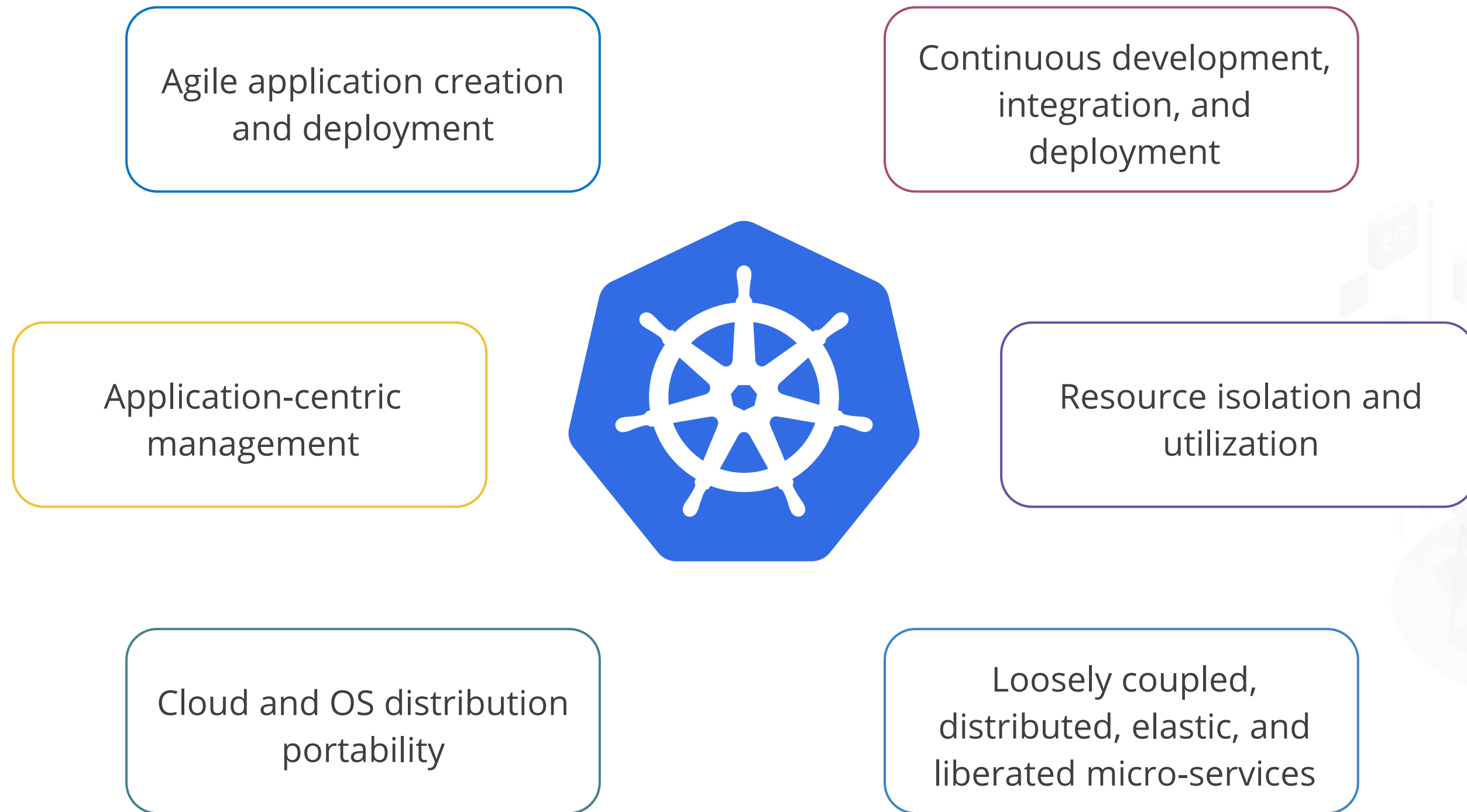
Kubernetes Practice

Kubernetes provides a framework for running distributed systems strongly.

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



Benefits of Kubernetes



Skills Acquired

Cluster Architecture

Workloads and Services

Load Balancing and
Scheduling

Storage Handling

Configuration and Security

Troubleshooting Clusters

Azure Kubernetes Service

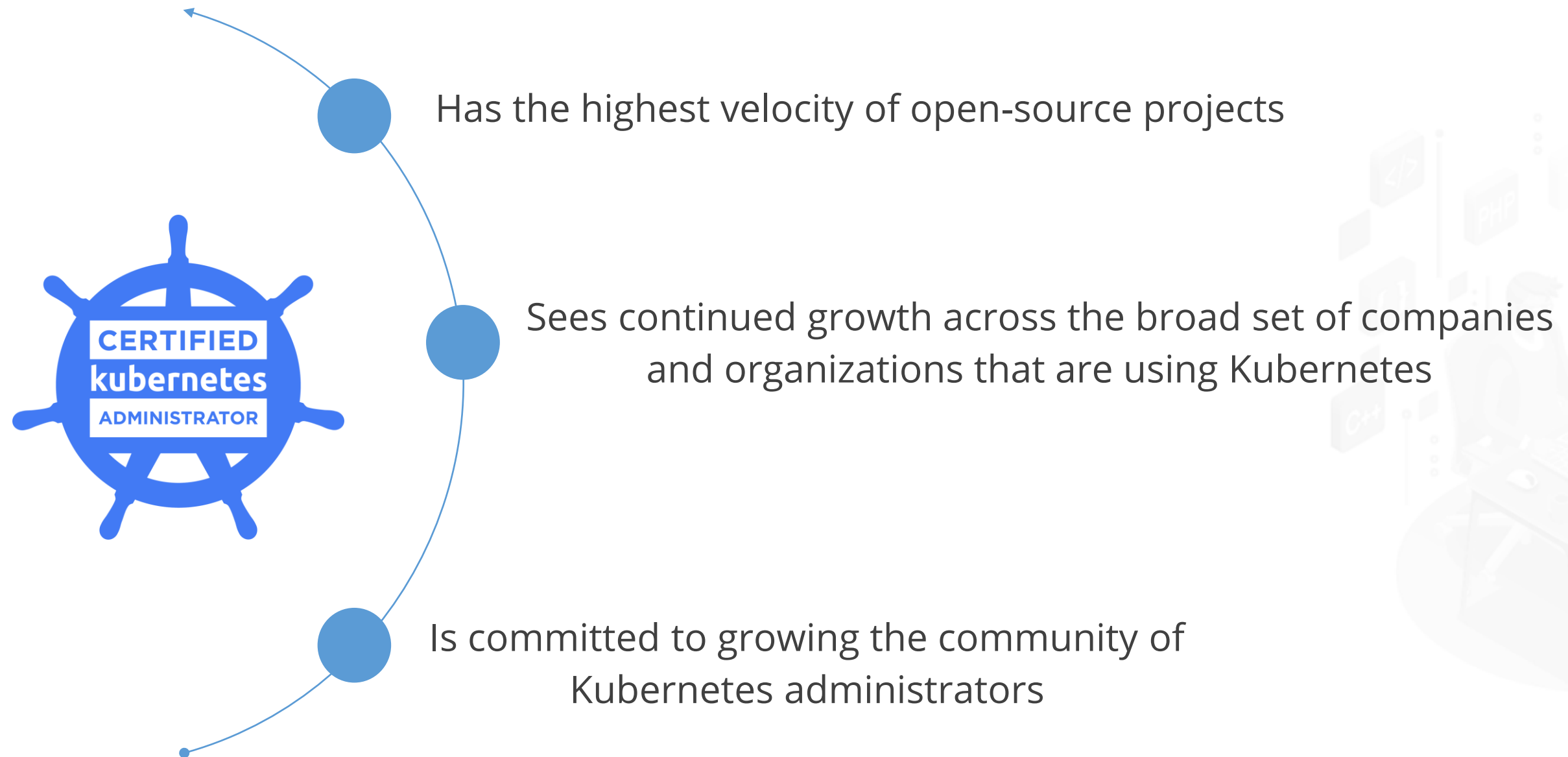
The Importance of CKA

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?



Certification

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



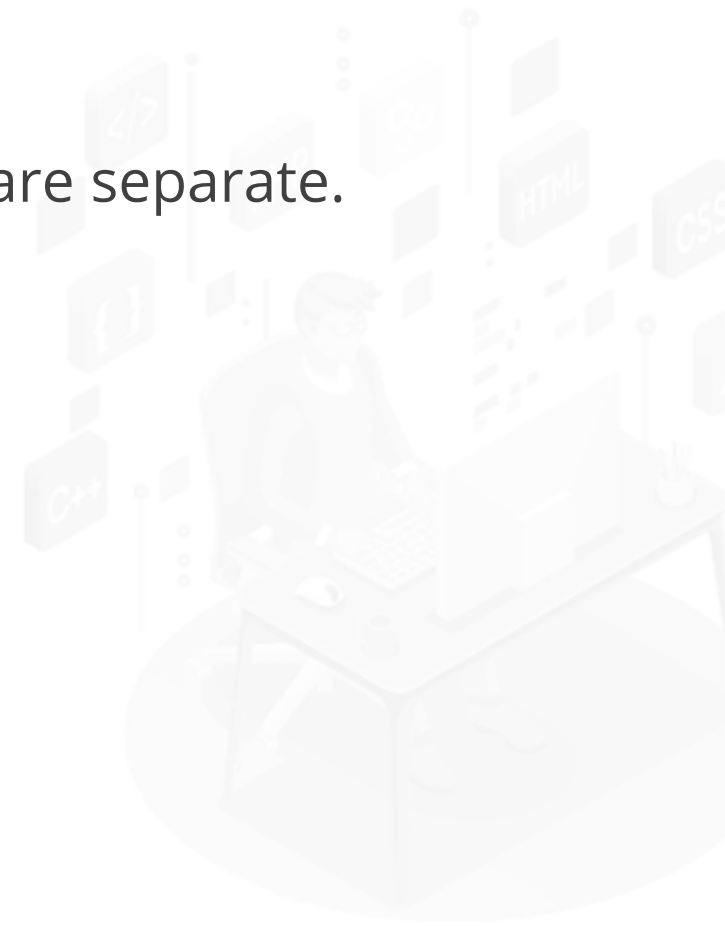
Overview of the CKA Program

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 does not 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. The 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 \$375 and includes one free retake.
Quarterly exam updates are planned to match Kubernetes releases.



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

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Learning Path

Course Outline

01

Course Introduction

02

Core Concepts

03

Kubernetes Clusters

04

Workloads

05

Scheduling



Course Outline

06

Services, Load Balancing, and Networking

07

Storage

08

Azure Kubernetes Service

09

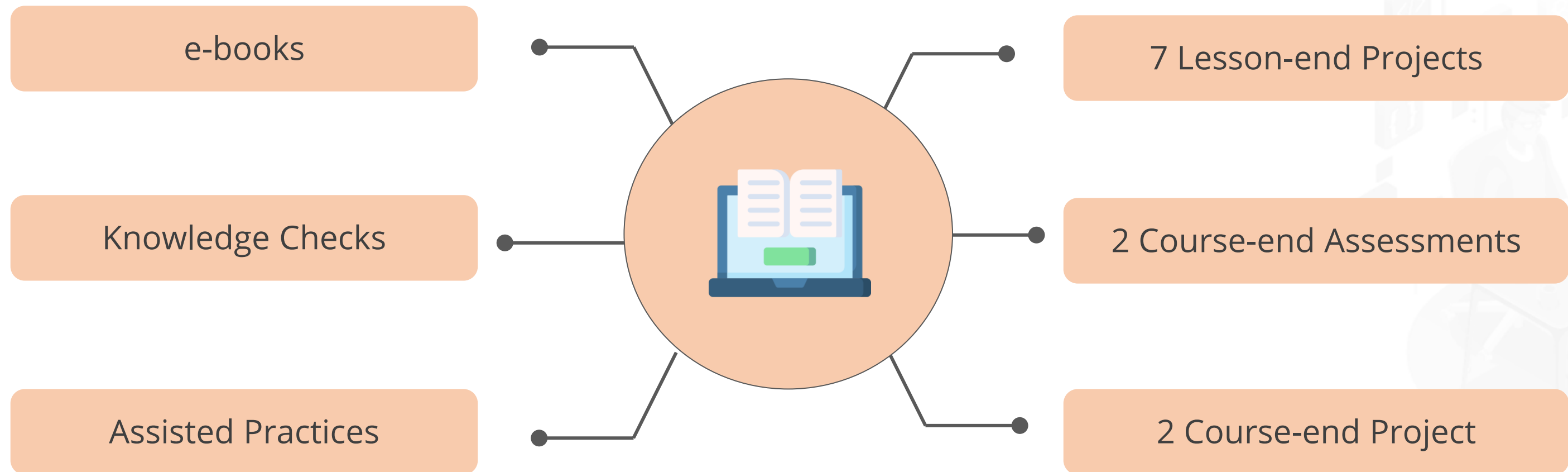
Troubleshooting and Kubernetes Case Studies



Course Components

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

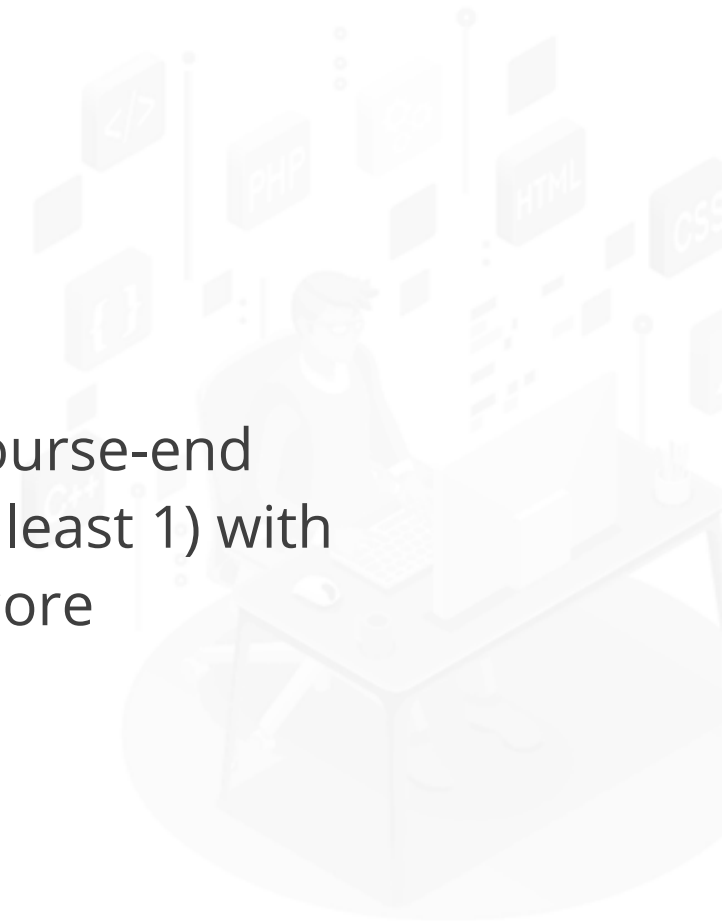


Course Completion Criteria

Complete Course-end
Project (at least 1)



Complete Course-end
Assessment (at least 1) with
70% score



simplilearn

Get Certified. Get Ahead.