DASA®

DASA Platform Engineering

Syllabus

Version 1.0.0

SCOPE AND PURPOSE OF THIS DOCUMENT

The purpose of this document is to inform all parties interested in the DASA Platform Engineering Certification Program about the areas covered in the program.

DASA PLATFORM ENGINEERING

As per Gartner, 80% of large software engineering organizations will establish platform engineering teams by 2026. Platform Engineering streamlines development, deployment, and operations processes.

This program will help learners with fundamental knowledge of Platform Engineering so that they are able to design and build a platform that meets organizational and customer goals, thereby making its adoption and usage successful in their organizations.

After going through the program, learners will be able to align Platform Engineering with business goals, discern the interplay of flow and technology in Platform Engineering, treat Platform as a Product and develop the right developer experience. They will also be able to accelerate cultural shifts, get stakeholder buy-in, understand the role of IaC, CI/CD, containerization, monitoring, alerting and responding to incidents.

QUALIFICATION OBJECTIVES

When you have acquired the required knowledge from this program, you will be able to:

- Articulate the importance and requirements of Platform Engineering.
- Examine the relationship between DevOps and Platform Engineering.
- Align the Platform Engineering strategies with business vision and goals.
- Leverage your platform to promote and accelerate cultural shifts to ensure successful evolution of your DevOps transformation of platform engineering in your organization.
- Treat the platform as a product.
- Develop a strategy for building the right developer experience.
- Create a strategy to use Infrastructure as code (IaC) in Platform Engineering.
- Illustrate how CI/CD is simplified with Platform Engineering.
- Explain the role of containerization in the context of Platform Engineering.
- Comprehend best practices for monitoring, alerting, and incident response.
- Devise a plan for the platform beyond the build.

TARGET AUDIENCE

- Leaders/sponsors, stakeholders of platform development
- Platform engineers
- Development team

DASA PLATFORM ENGINEERING LEARNING OUTCOMES

SYLLABUS AREAS

The following syllabus areas are identified.

SYLLABUS AREA CODE	SYLLABUS AREA TITLE
DP	Deciphering Platform Engineering
RD	Relationship between DevOps and Platform Engineering
SM	Stakeholder Management in Platform Engineering
AP	Accelerating Platform Engineering with DevOps Culture
PP	Platform as Product
DE	Building Developer Experience
IC	Infrastructure as Code in Platform Engineering
CI	CI/CD in Platform Engineering
CP	Role of Containerization in Platform Engineering
ML	Monitoring, Logging, and Incident Response
DD	Platform Engineering beyond Design and Development

SYLLABUS

In the following tables, the key aspects of the DASA Platform Engineering Syllabus are described.

Deciphering Platform Engineering

Syllabus Area Code: DP Syllabus Area Title: Deciphering Platform Engineering	
Topic	**Objectives**
Deciphering Platform Engineering	Define Platform Engineering Identify the right business need for the deployment of Platform Engineering solutions List the benefits of Platform Engineering for the organization and teams Explain the principles of Platform Engineering Identify the skills required for Platform Engineering

Relationship between DevOps and Platform Engineering

Syllabus Area Code: RD Syllabus Area Title: Relationship between DevOps and Platform Engineering	
Topic	**Objectives**
Relationship between DevOps and Platform Engineering	• Articulate the relationship between Team Topologies, DevOps anti-types and emergence of Platform Engineering • Identify the interplay of Devops concepts in Platform Engineering

Stakeholder Management in Platform Engineering

Syllabus Area Code: SM Syllabus Area Title: Stakeholder Management in Platform Engineering	
Topic	**Objectives**
Stakeholder Management in Platform Engineering	• Create a vision for Platform Engineering • Identify the right stakeholders for the success of platform engineering • Identify the role of leadership in platform engineering • Get stakeholder support to begin, sustain, and scale platform engineering in your organization › Create a stakeholder management plan

Accelerating DevOps Culture with Platform Engineering

Syllabus Area Code: AP Syllabus Area Title: Accelerating DevOps Culture with Platform Engineering	
Topic	**Objectives**
Accelerating DevOps Culture with Platform Engineering	• Break the walls of confusion for better communication and collaboration across IT teams • Establish a culture of diversity, inclusion and shared responsibility • Establish a culture of empowered ownership and trust through self-service • Build a culture of agility, reliability, innovation and long term thinking • Apply customer-centric thinking internally

Platform as Product

Syllabus Area Code: PP Syllabus Area Title: Platform as Product	
Topic	**Objectives**
Platform as Product	Identify the need to treat the platform as a product Chart out the four steps of the Customer Development Method Identify the characteristics of a minimum viable product Articulate the importance of creating platform backlog and prioritization Identify the requirements for continuous improvement of the platform Discuss steps for evangelizing the platform

Building Developer Experience

Syllabus Area Code: DE Syllabus Area Title: Building Developer Experience	
Topic	**Objectives**
Building Developer Experience	Identify the key elements that contribute to a positive developer experience (DX). Map the developer's journey and identify critical touchpoints and pain points. Develop and implement strategies to enhance developer experience in your organization. Explain strategy for continuous improvement to ensure ongoing enhancements to DX.

Infrastructure as Code in Platform Engineering

Syllabus Area Code: IC Syllabus Area Title: Infrastructure as Code in Platform Engineering	
Topic	**Objectives**
Infrastructure as Code in Platform Engineering	Identify the importance of IaC in Platform Engineering Explain the advanced concepts of Infrastructure as Code Compare and contrast the tools for Infrastructure as code Identify the steps to deploy and configure infrastructure as code

CI/CD in Platform Engineering

Syllabus Area Code: CI Syllabus Area Title: CI/CD in Platform Engineering	
Topic	**Objectives**
CI/CD in Platform Engineering	• Explain the importance of CI/CD in development, deployment, automation, scalability, maintenance, resilience, monitoring and observability • Create strategy to implement CI/CD for your platform • Identify the CI/CD tools to be used for your platform as per need

Role of Containerization in Platform Engineering

Syllabus Area Code: CP Syllabus Area Title: Role of Containerization in Platform Engineering	
Topic	**Objectives**
Role of Containerization in Platform Engineering	• Explain the relationship between containerization and IaC • Explain the relationship between containerization and Microservices architecture • Explain the relationship between containerization and CI/CD pipeline

Monitoring, Logging, and Incident Response

Syllabus Area Code: ML Syllabus Area Title: Monitoring, Logging, and Incident Response	
Topic	**Objectives**
Monitoring, Logging, and Incident Response	• List the best practices for monitoring and logging in distributed systems. • Summarize how to set up effective alerting and monitoring solutions. • Gain proficiency in incident response and troubleshooting strategies.

Platform Engineering beyond Design and Development

Syllabus Area Code: DD Syllabus Area Title: Platform Engineering beyond Design and Development	
Topic	**Objectives**
Platform Engineering beyond Design and Development	• Identify the considerations during platform design for platform scalability • Identify the role of evolving technology landscape in platform engineering • Create a strategy to continuously involve the dev team in the design, development, maintenance and innovation of platform

www.dasa.org