Developing Cloud Native Applications

Module 1 Glossary: Introduction to Cloud Native

Term	Definition
Application Modernization	The process of taking existing legacy applications and modernizing the underlying platform infrastructure, deployment strategy, and the code architecture to increase developer productivity and reduce costs.
Broad Network Access	One of five characteristics of cloud computing. Refers to cloud computing resources that can be accessed via the network through standard mechanisms and platforms such as mobile phones, tablets, laptops, and workstations.
Cloud Computing	A model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
Cloud Native Computing Foundation (CNCF)	An organization that brings together developers and experts from influential tech companies to agree on guidance for developing cloud native computing technologies.
Containerization	The ability to take your existing software with minor updates to move to the cloud. It is the packaging of software code with the operating system libraries and dependencies required to run code in order to create a single lightweight executable that runs consistently on any infrastructure.
Digital Analytics Programs (DAPs)	Programs that encompass the collection, measurement, analysis, visualization and interpretation of digital data which illustrates user behavior.
Hosted Private Cloud	Maintained by an external vendor for one organization.
Hybrid Integration Platforms (HIPs)	Platforms that intelligently manage hybrid cloud automated platforms and systems.
Measured Service	One of five characteristics of cloud computing. Refers to only paying for resources that are used or reserved as you go; if you're not using resources, you're not paying. Resource usage is monitored, measured, and reported transparently based on utilization.
On-Demand Self Service	One of five characteristics of cloud computing. Refers to access to cloud resources such as the processing power, storage, and network you need, using a simple interface, without requiring human interaction with each service provider.

On-Premises Private Cloud	The cloud service belongs to a single organization who hosts and manages their own cloud space.
Rapid Elasticity	One of five characteristics of cloud computing. Refers to accessing more resources when needed, and scale back when they aren't because resources are elastically provisioned and released.
Refactoring	Changing and extending an application over time to enable an easier move to the cloud.
Resource Pulling	One of five characteristics of cloud computing. Refers to giving cloud providers economies of scale, which they pass on to their customers, making cloud cost-efficient. Using a multi-tenant model, computing resources are pooled to serve multiple consumers; cloud resources are dynamically assigned and reassigned, according to demand, without customers needing to concern themselves with the physical location of these resources.
Security as a Service	A Software as a Service capability offered by both public cloud and private hosted cloud vendors.
SRE	"Site Reliability Engineer" The person who bridges the gap between development and operations. They spend about 50% of their time on improving existing operations to reduce failures and future efforts and the other 50% on development tasks like creating new features and implementing automation.
Test Driven Development	The practice of creating tests before writing code. This ensures every line of code written is backed by a test.
Trail Map	Developed by CNCF, this guide leads you through implementing cloud native computing technologies in the following sequence: containerization; CI/CD; orchestration and application definition; observability and analysis; service proxy, discovery, and mesh; networking, policy, and security; distributed database and storage; streaming and messaging; container registry and runtime; and software distribution.