Tel: +1-929-672-1814
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Generative AI Course Outline:

Course Title "Cloud Engineers"

Cloud 101 Training" typically refers to introductory courses aimed at providing a fundamental understanding of cloud computing. These trainings cover the basics of cloud technology, including types of cloud services (IaaS, PaaS, SaaS), deployment models (public, private, hybrid), and key cloud providers like AWS, Microsoft Azure, and Google Cloud Platform. The goal is to equip learners with a foundational knowledge of how cloud computing works in various industries for data storage, hosting applications, and more. This type of training is ideal for beginners or professionals from non-technical backgrounds looking to understand the basics of cloud technology.

- Cloud Infrastructure Fundamentals
- Cloud Architecture and Design
- Cloud Deployment and Management
- Cloud Security and Compliance
- Security Fundamentals
- Advanced Cloud Concepts
- Hybrid and Multi-Cloud Strategies:
- Explore hybrid cloud solutions and multi-cloud architectures to leverage multiple cloud providers.
- Edge Computing: Understand edge computing and its role in extending cloud capabilities closer to data sources and end-users.
- Machine Learning and AI Services: Utilize cloud-based AI and machine learning services (AWS SageMaker, Azure ML, Google AI) to build intelligent applications.
- Big Data and Analytics: Implement big data solutions using cloud services (AWS Redshift, Azure Synapse, Google Big Query) for data processing and analytics.
- DevOps: Apply DevOps principles to improve development processes and ensure reliable, scalable cloud operations.
- These outlines provide a focused and high-level view of essential topics for Cloud Engineers, guiding their learning and professional development in key areas of cloud computing.

COURSE TITLE: Python for Data Analysts			
Course Number (*)	GENAI-107		
Pre/Co-Requisites	None		
Department	Training		
Instructor Name (*)	Feroz Mohammad	**Email (*)**	info@genai-training.com
Office Location	On-line	**Class Hours**	TT: 9:00pm – 10:30PM EST
Telephone No.	+1-929-672-1814		
Class media	Google Meet	**Class Recordings**	GenAI Portal

COURSE INFORMATION/ DESCRIPTION OF THE COURSE
Introduction to Cloud Computing: Gain foundational knowledge of cloud computing concepts, deployment models (public, private, hybrid), and service models (IaaS, PaaS, SaaS).

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Cloud Infrastructure and Services: Explore core services from major cloud providers (AWS, Azure, Google Cloud), including compute, storage, networking, and database services.
Architecting and Designing Cloud Solutions: Learn best practices for designing scalable, reliable, and cost-effective cloud architectures, with a focus on microservices, serverless computing, and high availability.
Cloud Deployment and Automation: Master the deployment and management of cloud resources using CI/CD pipelines, Infrastructure as Code (IaaC) tools like Terraform and AWS CloudFormation, and configuration management.
Security and Compliance: Understand the importance of cloud security, identity and access management (IAM), data protection, compliance with industry standards, and implementing robust security monitoring and incident response plans.

*LEARNING RESOURCES

* Recommended resources (books, online courses, tutorials)

- Books
- "Architecting the Cloud" by Michael J. Kavis
- A comprehensive guide to cloud architecture, covering design patterns, best practices, and real-world case studies.
- "Cloud Native Infrastructure" by Justin Garrison and Kris Nova
- Focuses on building and managing scalable cloud-native applications, with an emphasis on containers, Kubernetes, and cloud-native design principles.
- "AWS Certified Solutions Architect Official Study Guide" by Joe Baron, Hisham Baz, Tim Bixler, et al.
- A detailed study guide for preparing for the AWS Solutions Architect certification, covering key services and architectural best practices.
- Online Courses
- An introductory course to Azure services, covering core concepts, services, and solutions with practical exercises.
- Certification Programs
- Comprehensive guides, tutorials, and reference materials for all AWS services, including getting started guides and advanced configurations.
- Microsoft Azure Documentation
- Official documentation with step-by-step tutorials, quick starts, and API references for Azure services.
- Google Cloud Documentation
- Detailed documentation and tutorials for Google Cloud Platform services, including hands-on labs and code samples.
- Hands-On Labs
- AWS Hands-On Labs
- Interactive labs to practice AWS services and solutions.
- Hands-on lab platform for Google Cloud, allowing you to practice and learn in a real cloud environment.
- These resources provide a solid foundation for learning cloud engineering, covering theoretical concepts, practical skills, and real-world applications

* COURSE OUTCOMES

- Introduction to Cloud Computing: Gain foundational knowledge of cloud computing concepts, deployment models (public, private, hybrid), and service models (IaaS, PaaS, SaaS).

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- Cloud Infrastructure and Services: Explore core services from major cloud providers (AWS, Azure, Google Cloud), including compute, storage, networking, and database services.
- Architecting and Designing Cloud Solutions: Learn best practices for designing scalable, reliable, and cost-effective cloud architectures, with a focus on microservices, serverless computing, and high availability.
- Cloud Deployment and Automation: Master the deployment and management of cloud resources using CI/CD pipelines, Infrastructure as Code (IaaC) tools like Terraform and AWS CloudFormation, and configuration management.
- Security and Compliance: Understand the importance of cloud security, identity and access management (IAM), data protection, compliance with industry standards, and implementing robust security monitoring and incident response plans.
- Foundational Knowledge: Demonstrate a thorough understanding of cloud computing principles, including different deployment models (public, private, hybrid) and service models (IaaS, PaaS, SaaS).
- Cloud Infrastructure Management: Proficiently manage and utilize core cloud services provided by major cloud providers (AWS, Azure, Google Cloud), including compute, storage, networking, and databases.
- Architecting Cloud Solutions: Design and implement scalable, reliable, and cost-effective cloud architectures, leveraging best practices for microservices, serverless computing, and high availability.
- Deployment and Automation: Develop and manage automated deployment pipelines using CI/CD tools, Infrastructure as Code (IaC) frameworks like Terraform and AWS CloudFormation, and configuration management tools.
- Cloud Security and Compliance: Implement robust security measures, including identity and access management (IAM), data protection techniques, and compliance with industry standards, as well as develop effective security monitoring and incident response strategies