TS
TECH TEACH
EDUCATIONALSOLUTIO

Google Cloud Platform (GCP)

OUR MISSION :

"Our mission is to empower learners worldwide through innovative technology, personalized learning experiences, and accessible educational resources. We strive to cultivate a community where every individual can achieve their full potential, regardless of their background or circumstances."

OUR VALUES :

"To pioneer the future of education by leveraging cutting-edge technology to make learning more engaging, effective, and inclusive. We envision a world where education transcends boundaries, creating opportunities for lifelong learning and fostering a society enriched by knowledge and creativity."

COURSE CURRICULUM:

Week 1: GCP Fundamentals Review

- Day 1-2: Introduction to GCP
  - Overview of GCP services and architecture.
  - Setting up a GCP account and environment.
- Day 3-4: Core GCP Services
  - Introduction to Compute Engine, Cloud Storage, and Cloud SQL.
  - Hands-on: Deploying virtual machines and setting up storage.
- Day 5: GCP Networking Basics
  - Understanding VPC, subnets, and firewalls.
  - Hands-on: Configuring VPCs and network components.

COURSE CURRICULUM:

Week 2: Advanced Compute and Storage

- Day 1-2: Compute Engine Deep Dive
  - Custom machine types, preemptible VMs, and autoscaling.
  - Hands-on: Advanced VM configurations and management.
- Day 3-4: Kubernetes Engine (GKE)
  - Setting up and managing Kubernetes clusters on GCP.
  - Hands-on: Deploying containerized applications on GKE.
- Day 5: Cloud Storage Advanced Features
  - Lifecycle management, versioning, and storage classes.
  - Hands-on: Implementing advanced storage strategies.

COURSE CURRICULUM:

Week 3: Data and Analytics

- Day 1-2: BigQuery
  - Introduction to BigQuery and its use cases.
  - Hands-on: Writing SQL queries and managing datasets.
- Day 3-4: Dataflow and Dataproc
  - Stream and batch processing with Dataflow.
  - Managed Spark and Hadoop with Dataproc.
  - Hands-on: Creating and managing data processing pipelines.
- Day 5: AI and Machine Learning
  - Overview of AI and ML services on GCP.
  - Hands-on: Using AI Platform for training and deploying models.

COURSE CURRICULUM:

Week 4: Security and Identity

- Day 1-2: Identity and Access Management (IAM)
  - Managing users, roles, and permissions.
  - Hands-on: Implementing IAM policies and best practices.
- Day 3-4: Security Services
  - Using Cloud Security Command Center, Cloud Armor, and VPC Service Controls.
  - Hands-on: Configuring security services to protect GCP resources.
- Day 5: Encryption and Key Management
  - Using Cloud KMS for encryption.
  - Hands-on: Managing encryption keys and securing data.

COURSE CURRICULUM:

Week 5: DevOps and CI/CD

- Day 1-2: Cloud Source Repositories and Cloud Build
  - Introduction to Cloud Source Repositories.
  - Setting up CI/CD pipelines with Cloud Build.
  - Hands-on: Building and deploying applications using Cloud Build.
- Day 3-4: Cloud Deployment Manager
  - Infrastructure as Code with Deployment Manager.
  - Hands-on: Writing and deploying deployment templates.
- Day 5: Cloud Operations Suite
  - Monitoring, logging, and tracing with Cloud Operations.
  - Hands-on: Setting up monitoring and alerts for GCP resources.

COURSE CURRICULUM:

Week 6: Advanced Networking and Hybrid Connectivity

- Day 1-2: Advanced Networking
  - Configuring load balancers, Cloud CDN, and Cloud NAT.
  - Hands-on: Implementing advanced networking configurations.
- Day 3-4: Hybrid Connectivity
  - Setting up VPNs, Interconnect, and Peering.
  - Hands-on: Connecting on-premises infrastructure with GCP.
- Day 5: Service Mesh with Anthos
  - Introduction to Anthos and Istio for service mesh.
  - Hands-on: Deploying and managing a service mesh on GCP.

COURSE CURRICULUM:

Week 7: Serverless and Event-Driven Architectures

- Day 1-2: Cloud Functions and Cloud Run
  - Deploying serverless functions with Cloud Functions.
  - Running containerized applications with Cloud Run.
  - Hands-on: Building and deploying serverless applications.
- Day 3-4: Event-Driven Architectures
  - Using Pub/Sub for messaging and event-driven workflows.
  - Hands-on: Creating and managing event-driven architectures.
- Day 5: Workflow Automation
  - Automating workflows with Cloud Composer (Apache Airflow).
  - Hands-on: Building and managing workflows.

COURSE CURRICULUM:

Week 8: Final Project and Presentations

- Day 1-4: Project Development
  - Students work on a comprehensive final project that integrates multiple aspects of the curriculum.
- Day 5: Project Presentation and Evaluation
  - Students present their projects.
  - Feedback and evaluation.

Our Partners Company's

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THANK YOU

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