



TechSolutions™

Google Kubernetes Engine (GKE)

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Course Topics:

- **GKE Deployment and Administration:**
 - Introduction to GKE, its architecture, and core components
 - GKE cluster creation and configuration
 - Managing and scaling GKE clusters
 - Monitoring and logging using the Cloud Operation suite.
 - Upgrades and maintenance of GKE cluster components
- **Networking for GKE Clusters:**
 - Networking Requirements for GKE
 - Configuring VPC-native clusters
 - Load balancing GKE traffic using Ingress and Services
 - GKE cluster Isolation using network policies and firewall rules.
- **Managing Security Aspects:**
 - Securing GKE clusters control plane and workload nodes
 - Controlling access to the GKE cluster using authentication and authorization
 - Three states of data encryption in GKE
- **Planning, Deploying, and Managing Workloads on GKE:**
 - Different types of workloads on GKE
 - Migrating workloads from other platforms to GKE
 - Using node taints and pod toleration to control workload deployment on GKE
 - Rolling updates and canary deployments on GKE
- **GKE Design Considerations:**
 - High availability and fault tolerance on GKE
 - Multi-tenant GKE clusters
 - Service Mesh on GKE
 - Best practices for GKE cluster design and management