# **INFOSOFT IT SOLUTIONS**

# Training | Projects | Placements

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# <u> APIGEE</u>

### **Introduction to APIGEE**

- Overview of APIGEE: Features, benefits, and use cases
- API Management Fundamentals: Role of API gateways and management platforms
- Evolution and History of APIGEE: Google's acquisition and platform development

## **Getting Started with APIGEE**

- Setting Up APIGEE Edge: Account creation, Organization setup
- APIGEE Edge Architecture: Components (API Proxy, API Products, Developer Portal)
- APIGEE Edge UI: Navigating the UI, Dashboard overview

# **APIGEE API Design and Development**

- Designing APIs with APIGEE: RESTful API design principles
- API Proxy Creation: Creating, editing, and managing API proxies
- API Proxy Bundles and Revisions: Versioning and revision control

# **Security and Access Control**

- API Security Fundamentals: Authentication (OAuth, JWT), Authorization, and Encryption
- Implementing Security Policies: OAuth, API Key validation, IP Whitelisting

• OAuth 2.0 with APIGEE: Configuring OAuth providers and clients

# **API Traffic Management**

- API Traffic Control: Rate limiting, Quotas, and Spike Arrest policies
- Content-Based Routing: Routing traffic based on request content
- API Monitoring and Analytics: Monitoring API traffic, Performance metrics

### **APIGEE Extensions and Customization**

- Adding Custom Code: JavaScript and Node.js in API proxies
- Using Extensions: Policy extensions and custom plugins
- APIGEE Flowhooks: Customizing proxy behavior with Flowhooks

### **Developer Experience (DX) with APIGEE**

- Developer Portal Essentials: Setting up and customizing developer portals
- API Documentation: Publishing API documentation and guides
- Onboarding Developers: API Key management, Developer registration

# **API Lifecycle Management**

- API Lifecycle Stages: Design, Develop, Deploy, Publish, Monitor, and Retire
- Versioning APIs: Managing multiple versions of APIs
- Continuous Integration and Deployment (CI/CD) with APIGEE

### **APIGEE Policies and Extensions**

- Pre-built Policies: Traffic management, Security, Mediation, and Transformation
- Writing Custom Policies: Developing Java-based policies

• Policy Execution Order: Understanding the flow of policy execution

## **API Monetization and Billing**

- Monetizing APIs: Creating and managing API products
- Developer Billing: Configuring rate plans and billing cycles
- Reporting and Analytics: Revenue tracking and reporting

## **APIGEE** for Microservices and Cloud Integration

- Integrating APIs with Microservices: Managing microservices with APIGEE
- Cloud Integration: Connecting APIGEE with cloud platforms (AWS, Azure, GCP)
- Containerized Deployments: APIGEE hybrid and multi-cloud deployment options

# **Advanced Topics**

- API Transformation: Implementing message transformation and mediation
- API Performance Optimization: Caching strategies, Load balancing, and Scaling
- Multi-region Deployment: High availability and disaster recovery

### **Real-world Use Cases and Case Studies**

- Implementing APIGEE in Production: Case studies across industries
- Best Practices and Lessons Learned from Successful APIGEE Implementations

# **Hands-on Projects and Practical Application**

- Designing and Implementing API Proxies: Hands-on projects covering various scenarios
- Integrating APIs with Backend Systems: Testing integrations and data flows

# **Career Development and Job Preparation**

- Building a Career in API Management: Skills and certifications
- Interview Preparation: APIGEE-related interview questions and scenarios
- Freelancing and Consulting Opportunities in APIGEE development and management