20 Days TOC – Architect API & Integration Services (Azure)

Day 1 – API Management Fundamentals & Gateway (Module 1)

- Introduction to API Management
- Create an API Gateway
- Import and publish an API
- Call API with subscription key

Day 2 – API Performance & Caching (Module 2)

- API Management policies
- Choosing caching policy
- Configure response caching
- Performance improvement under load

Day 3 – API Security & Protection (Module 3)

- Remove technical headers
- Mask URLs using transformation policies
- Throttling and rate limiting
- Protect backend APIs

Day 4 – Authentication & Access Control in APIM (Module 4)

- API keys and subscriptions
- Client certificate authentication
- Secure API access

Day 5 – Azure Functions with API Management (Module 5)

- Exposing Function Apps as APIs
- Import Azure Function apps into APIM
- Unified API surface

Day 6 – Logic Apps & Integration Account (Module 6)

- Logic Apps overview
- Logic Apps workflow model
- Logic Apps V2
- Triggers, actions and conditions
- Integration with Blob & SQL
- Developing Logic Apps in VS Code

Day 7 – Azure Service Bus (Queues & Topics) (Module 7)

- Service Bus concepts
- Queue implementation
- Topics and subscriptions
- Connection strings

- Service Bus vs Storage queues
- Use cases and best practices

Day 8 – Event Grid – Subscriptions & Domains (Module 8)

- Event Grid introduction
- Register Event Grid subscription
- Logging and monitoring in Functions
- Use cases and case studies

Day 9 – API Management Advanced Services (Module 9)

- Need and benefits of APIs
- OpenID Connect & OAuth2
- Create managed APIs
- Apply policies
- Logging and monitoring

Day 10 – Developer Portal & API Discovery (Module 10)

- Azure Developer Portal architecture
- Publishing and discovering APIs

Day 11 – API Gateway Architecture (Module 11)

- API Gateway concepts
- Authentication and SSL termination
- Routing
- Load balancing
- Monitoring and billing

Day 12 – Event Grid Topics & Events (Module 12)

- Built-in and custom events
- Register Event Grid topics
- Logging and monitoring

Day 13 – Azure Data Factory (Module 13)

- Data Factory concepts
- Pipelines, activities, datasets
- Linked services
- Triggers and Data Flows
- User properties and monitoring

Day 14 – Azure Key Vault (Module 14)

- Azure Key Vault overview
- Permissions and RBAC
- Accessing secrets through APIs

Day 15 –Azure Monitor/Log Analytics (Merged) (Module 15 + Module 16)

- Azure Monitor architecture
- Alerts and diagnostics
- Log Analytics concepts
- Log Analytics workspace
- Scoping monitored resources

Day 16 – Azure Function Apps (Module 17)

- Azure Functions overview
- Triggers and bindings
- Supported languages
- Function pipeline
- Building serverless pipelines

Day 17 – Azure DevOps (Module 18)

- Azure DevOps architecture
- Boards, Repos, Pipelines, Artifacts
- Test Plans
- YAML pipeline basics
- Git vs TFVC
- Project management using DevOps

Day 18 – Azure Active Directory & Managed Identity (Module 19)

- Azure AD fundamentals
- Identity management
- Securing applications
- SSO concepts
- OpenID vs OAuth
- Authentication flow
- RBAC

Day 19 –App Registrations & Resource Groups (Merged) (Module 20 + Module 21)

App Registrations

- App registration configuration
- Auth & authorization workflows
- Integrating App Services with AAD

Resource Groups

- Resources and Resource Groups
- ARM concepts
- Policies
- Cost and management best practices

Day 20 – Azure Storage & Data Lake (Module 22)

- Azure Storage overview
- Blob, Table, File and Queue storage
- Block, page and append blobs
- Lifecycle management
- GPv1 vs GPv2
- Azure Data Lake security
- Organizing data using Blob storage
- Creating and accessing storage resources