Syllabus for “Getting Started with Cloud Computing”

The term “Cloud” has evolved beyond a mere marketing buzzword to one of the most dynamic and essential global technologies in recent years. This phenomenon will not change in this present or upcoming decades. Cloud computing is now a key driver for delivering the value propositions for many small-to-medium sized businesses, large enterprises, global corporations, and government entities around the world. As a result, many IT practitioners and career-shifting professionals are making the wise decision to expand their knowledge into this important area. This course will use Amazon Web Services (AWS), the largest provider and leader according to Gartner, for many of the real-world examples and use cases. The “Getting Started with Cloud Computing” live course is the perfect vehicle for building a solid introductory foundation in Cloud regardless of the selected cloud provider.

This 4-hour live class includes the following topics:

- Cloud Concepts, Architecture and Design
    - Cloud computing defined
    - The value proposition of cloud
    - Cloud global infrastructure
    - Overview of virtualization and hypervisors
    - Datacenter VXLAN concepts
    - Cloud service types
    - Cloud deployment models
    - Survey of cloud services and emerging technologies
    - Opening your first cloud account
- Cloud Networking and Content Delivery
    - Cloud IP addressing
    - Virtual networks and subnets
    - Route tables and gateways
    - Virtual endpoints
    - Peering virtual networks
    - Advanced networking solutions
    - Content delivery networking (CDN)
    - Site-to-site VPNs and Peer-to-site VPN
- Cloud Server-based and Serverless Compute Services
    - Virtual instances
    - Deploying virtual machines
    - Auto-scaling services
    - Elastic load balancing
    - Deploying virtual applications and containers
    - Functions-as-a-service
- Cloud Storage Services
    - Cloud block (volume) storage
    - Elastic file systems
    - Object (Blob) storage in the cloud
    - Storage plans and tiers

    - Storage gateways and OOB data transfer
- Cloud Database Services
    - Survey of relational database services
    - NoSQL and document/key-value pair databases
    - Elastic caching
    - Data warehousing and data lakes
    - Emerging database technologies
- Cloud Monitoring and Optimization
    - Cloud monitoring and optimization of resources
    - Monitoring APIs in the cloud
- Cloud Identity Access Management Basics
    - The cloud security triad
    - Deploying identity and access management