

#_ Becoming Cloud Solutions Architect RoadMap













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|
|-- 📖 Basic Foundations
|   |-- 🧠 Computer Science Fundamentals
|       |-- Data Structures & Algorithms
|       |-- Operating Systems Principles
|       |-- Software Engineering Principles
|       Purpose: Deepen understanding of software's backbone.
|
|   |-- 💻 Programming Languages
|       |-- 🐍 Python
|       |-- 🌐 JavaScript (Node.js for backend)
|       |-- 🗣️ Shell Scripting
|       |-- GoLang
|       Purpose: Enhance ability to script, automate, and develop
applications.
|
|   |-- 🌐 Networking
|       |-- Network Protocols
|       |-- VPNs & Security
|       |-- Load Balancing & High Availability
|       Purpose: Deep dive into advanced networking concepts.
|
|   |-- 🛡️ Cybersecurity
|       |-- 🔒 Encryption
|       |-- 🚫 Access Control
|       Purpose: Protecting data and resources in the cloud.
|
|-- ☁️ Cloud Computing Fundamentals
|   |-- 🏢 Cloud Models
|       |-- 🚀 IaaS
|       |-- 📦 PaaS
|       |-- 💻 SaaS
|       Purpose: Selecting the right model for different applications.
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|  |-- 📊 Cloud Design Principles
|  |    |-- Cost Optimization
|  |    |-- Performance Efficiency
|  |    |-- Operational Excellence
|  |    |-- Reliability
|  |    |-- Security
|  |    Purpose: To design and manage effective cloud infrastructures.
|  |
|  |-- 🛠️ Virtualization
|  |    |-- 📦 VMWare
|  |    |-- 📄 Hyper-V
|  |    Purpose: Creating and managing virtual resources.
|  |
|  |-- ☁️ Cloud Storage Solutions
|  |    |-- 📁 Amazon S3
|  |    |-- 💾 Azure Blob Storage
|  |    Purpose: Storing and managing data in the cloud.
|  |
|-- 📡 Cloud Providers
|  |-- 🟦 AWS
|  |    |-- 📁 EC2, RDS, S3
|  |    |-- 🚀 AWS VPC
|  |    |-- 📦 Lambda
|  |    |-- 📊 CloudWatch
|  |    |-- 🛡️ AWS Security & IAM
|  |    Purpose: Mastering Amazon Web Services.
|  |
|  |-- 🟩 Azure
|  |    |-- ⚙️ Azure Virtual Machines
|  |    |-- 🧩 Azure Functions
|  |    |-- 📈 Azure Monitor
|  |    Purpose: Mastering Microsoft's cloud platform.
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|  |-- ☁ Google Cloud
|  |  |-- 📱 Compute Engine
|  |  |-- ☁ App Engine
|  |  |-- 📊 Stackdriver
|  |  Purpose: Gaining proficiency in Google's cloud services.
|
|-- 🛠 Cloud Tools and Automation
|  |-- 🧩 DevOps & CI/CD
|  |  |-- 🏗 Jenkins, Travis CI
|  |  |-- 🚀 CloudFormation, Azure ARM
|  |  Purpose: Implementing continuous integration and deployment.
|  |
|  |-- 📦 Containers
|  |  |-- 🐳 Docker
|  |  |-- 🏠 Kubernetes
|  |  Purpose: Managing containerized applications.
|  |
|  |-- 🤖 Automation Tools
|  |  |-- 🎪 Terraform
|  |  |-- 🐼 Puppet
|  |  Purpose: Automating cloud provisioning and management.
|  |
|  |-- 🩺 Monitoring & Logging
|  |  |-- 📈 Prometheus
|  |  |-- 📊 Grafana
|  |  |-- AWS CloudWatch, Azure Monitor
|  |  |-- Log Analytics tools (ELK Stack)
|  |  Purpose: Ensuring performance and reliability through
monitoring.
|  |
|  |-- 🔑 Identity and Access Management
|  |  Purpose: Ensuring proper security measures are in place for
resources.
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- | --  **Cloud Governance & Compliance**
 - | | --  Policies & Regulations
 - | | --  Risk Management
 - | **Purpose:** Ensuring legal compliance and managing risks.
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- | --  **Advanced Topics**
 - | | --  **Big Data on Cloud**
 - | | | -- AWS Redshift, Azure Data Lake
 - | | **Purpose:** Manage and analyze vast amounts of data.
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 - | | --  **Global Cloud Deployments**
 - | | | -- Content Delivery Networks (CDN)
 - | | | -- Multi-region deployments
 - | | **Purpose:** Deliver content globally with low latency.
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- | --  **Certifications**
 - | | --  [AWS Certified Solutions Architect – Associate Certification](#)
 - | | --  [Microsoft Certified: Azure Solutions Architect Expert -](#)
[Certifications](#)
 - | | --  [Professional Cloud Architect Certification | Learn](#)
 - | | **Purpose:** Recognized validation of cloud expertise.
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- | --  **Recommended Resources**
 - | | --  **Books**
 - | | | -- [Cloud Computing: Concepts, Technology & Architecture \(The Pearson Service Technology Series from Thomas Erl\)](#)
 - | | | -- [AWS Certified Solutions Architect Study Guide: Associate SAA-C01 Exam](#)
 - | | | -- [The Cloud at Your Service by Rosenberg, Jothy, Mateos, Arthur - Amazon.ae](#)
 - | | | -- [Architecting the Cloud: Design Decisions for Cloud Computing Service Models \(SaaS, PaaS, and IaaS\)](#)

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| |-- 🖥️ Online Courses
| | |-- [AWS Training and
Certification](https://aws.amazon.com/training/)
| | |-- [Microsoft Learn: Azure](Azure documentation | Microsoft
Learn)
| |
| |-- 👤 Community & Networking
| | |-- 🏢 Conferences
| | |-- 🎉 Meetups
| | |-- 🌐 Online Forums
| |
| | Purpose: Building connections and staying updated with
industry trends.
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