Microsoft Azure Learning Path (Extended Version)

1. Introduction to Cloud Computing

Understand the basics of cloud computing, its benefits like cost-efficiency, scalability, and global reach. Learn about public, private, and hybrid clouds.

2. Overview of Microsoft Azure

Get familiar with what Azure is, its history, global infrastructure (regions, availability zones), and key advantages over other cloud providers.

3. Creating a Free Azure Account

Sign up for a free Azure account and explore what free services you get (like free VMs, databases, storage for 12 months).

4. Azure Portal and Resource Management

Explore the Azure Portal interface. Learn how to use the Cloud Shell, create and manage resources, and organize them using Resource Groups.

5. Compute Services in Azure

Learn how to create and manage Virtual Machines (VMs), Azure App Services for web apps, and Azure Functions for serverless computing.

6. Azure Storage Services

Understand different storage types: Blob Storage, File Storage, Queue Storage, and Disk Storage. Learn about redundancy and performance tiers.

7. Azure Networking Basics

Learn about Virtual Networks, Subnets, Network Security Groups (NSGs), and VPN Gateway. Understand how networking works in Azure.

8. Azure Identity and Access Management (IAM)

Explore Azure Active Directory (AAD), Role-Based Access Control (RBAC), users, groups, and managing access to resources.

9. Azure Databases

Discover Azure SQL Database, Cosmos DB, and other database offerings. Learn basic operations and scalability features.

10. Azure Monitoring and Management Tools

Use Azure Monitor, Log Analytics, Application Insights, and Azure Advisor to monitor and improve your services.

11. Security in Azure

Understand key security services like Azure Security Center, Key Vault, Azure Defender, and best practices for secure cloud usage.

12. Backup and Disaster Recovery

Learn about Azure Backup and Site Recovery to protect your data and maintain business continuity.

13. Azure DevOps and CI/CD

Explore how to use Azure DevOps tools for project planning, code repositories, build pipelines, and deploying applications.

14. Azure Pricing and Cost Management

Understand pricing models (pay-as-you-go, reserved instances), use the pricing calculator, and set budgets using Cost Management tools.

15. Learning Resources and Labs

Use Microsoft Learn, Azure Sandbox, and GitHub resources to practice and improve your skills with real-world tasks.

16. Certification Path

Start with AZ-900 (Fundamentals), then go for AZ-104 (Administrator), AZ-204 (Developer), or AZ-305 (Architect). Each cert builds deeper knowledge.

17. Real-World Projects

Apply what you've learned by building small cloud projects like deploying a website, creating a database, or setting up a secure network.

18. Stay Updated

Follow Azure blogs, updates, documentation, and attend webinars to keep your skills current in the ever-changing cloud world.