**Episode 1:** Cloud Computing, High Availability, Scalability, Elasticity, Agility, Fault Tolerance, and Disaster Recovery

**Episode 2:** Principles of economies of scale

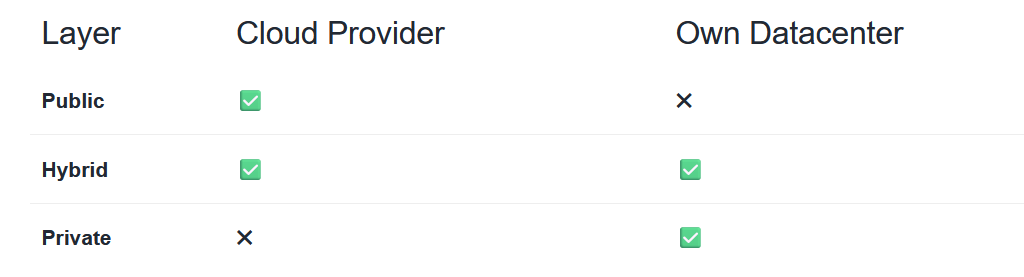
**Episode 3:** Capital Expenditure (CapEx) vs Operational Expenditure (OpEx) and their differences

**Episode 4:** Consumption-based model

* **No associated upfront cost**
* **No wasted resources**
* **Pay for what you need**
* **Stop paying when you don’t**

**Episode 5:** IaaS, PaaS, SaaS and their differences

**Episode 6:** Public, Private, Hybrid cloud and their differences



**Episode 7:** Azure Regions and Availability Zones

**Episode 8:** Azure Resource Groups and Resource Manager

**Episode 9:** Azure Compute Services | Virtual Machine, VM Scale Set, App Service, Functions, Container Instances, Kubernetes Service, availability set

**Episode 10:** Azure Networking Services | Virtual Network, Load Balancer, VPN Gateway, Application Gateway, CDN

CDN: Bringing data close to user

**Episode 11:** Azure Storage Services | Blob, Disk, File and Archive

**Episode 12:** Database Services | Cosmos DB, SQL Database, SQL DB for MySQL and PostgreSQL, SQL Managed Instance

**Episode 13:** Azure Marketplace

* Think of it like an “Azure Shop” where you purchase services and solutions for the Azure platform
* Each product is a template which contains one or multiple services
* Products are delivered by first and third-party vendors
* Solutions can leverage all service categories like IaaS, PaaS and SaaS

**Episode 14:** Azure IoT Services | IoT Hub, IoT Central, Azure Sphere

**Episode 15:** Azure Big Data and Analytics Services | Synapse Analytics (SQL Datawarehouse), HDInsight, Databricks

**Episode 16:** Azure Artificial Intelligence (AI) Services | Machine Learning Studio and Service

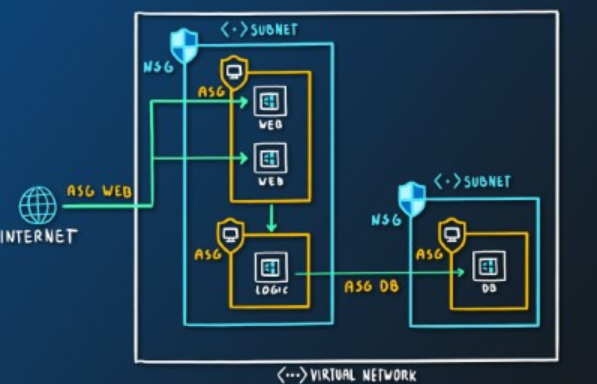
**Episode 17:** Azure Serverless Computing Services | Functions, Logic Apps, Event Grid

**Episode 18:** Azure DevOps Solutions | Azure DevOps, DevTest Labs

**Episode 19:** Azure Tools | Portal, PowerShell, CLI and CloudShell

**Episode 20:** Azure Advisor

**Episode 21:** Security Groups | NSG and ASG | Network Security Groups and Application Security Groups



**Episode 22:** User-defined Routes (UDR)

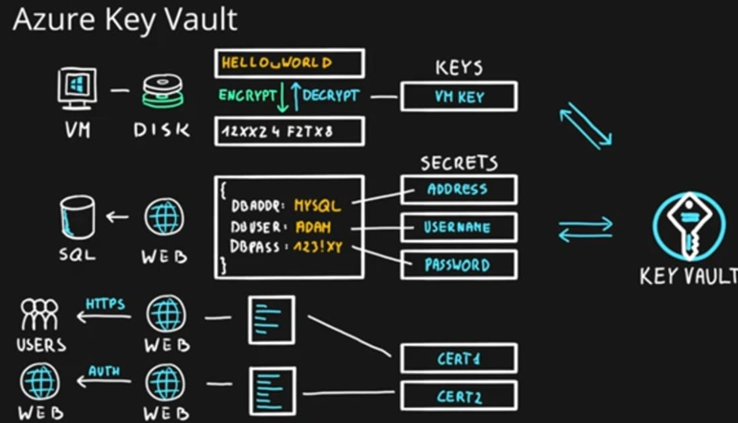
**Episode 23:** Azure Firewall

**Episode 24:** Azure DDoS Protection

**Episode 25:** Azure Identity Services | Identity, Authentication, Authorization & Azure AD

**Episode 26:** Azure Security Center and usage scenarios

**Episode 27:** Key Vault



**Episode 28:** Role-Based Access Control (RBAC)

**Episode 29:** Resource Locks

Designed to **prevent accidental deletion** and/or **modification**

Used in conjunction with RBAC

Two types of locks

* **Read-only** (**ReadOnly**) – only read actions are allowed
* **Delete** (**CanNotDelete**) – all actions except delete are allowed

**Episode 30:** Tags

Tags are simple **Name** (key) - **Value** **pairs**

Designed to help with **organization of Azure resources**

Used for resource **governance**, **security**, **operations management**, **cost management**, **automation**, etc.



**Episode 31:** Azure Policy

**Episode 32:** Azure Blueprints

**Episode 33:** Cloud Adoption Framework

**Episode 34:** Core tenets of Security, Privacy, and Compliance

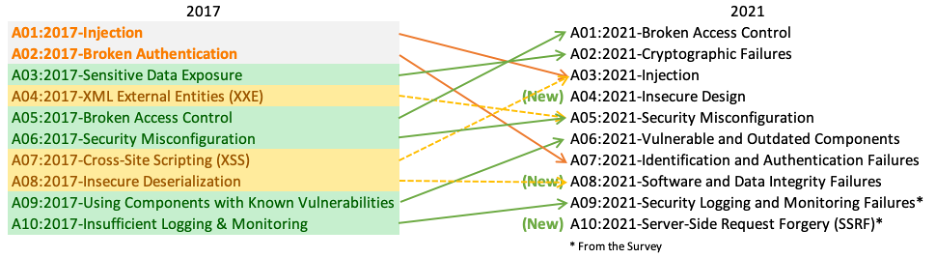
**Episode 35:** Cost Affecting Factors

**Episode 36:** Cost Reduction Methods and Pricing, TCO Calculators

**Episode 37:** Azure Cost Management

**Episode 38:** Azure Service Level Agreement (SLA)

**Episode 39:** Service lifecycle in Azure



Locally Redundant Storage (LRS)

Geo-Redundant Storage (GRS)

Zone-Redundant Storage (ZRS)

Geo-zone-redundant Storage (GZRS)

Read-Access Geo-Redundant Storage (RA-GRS)

