

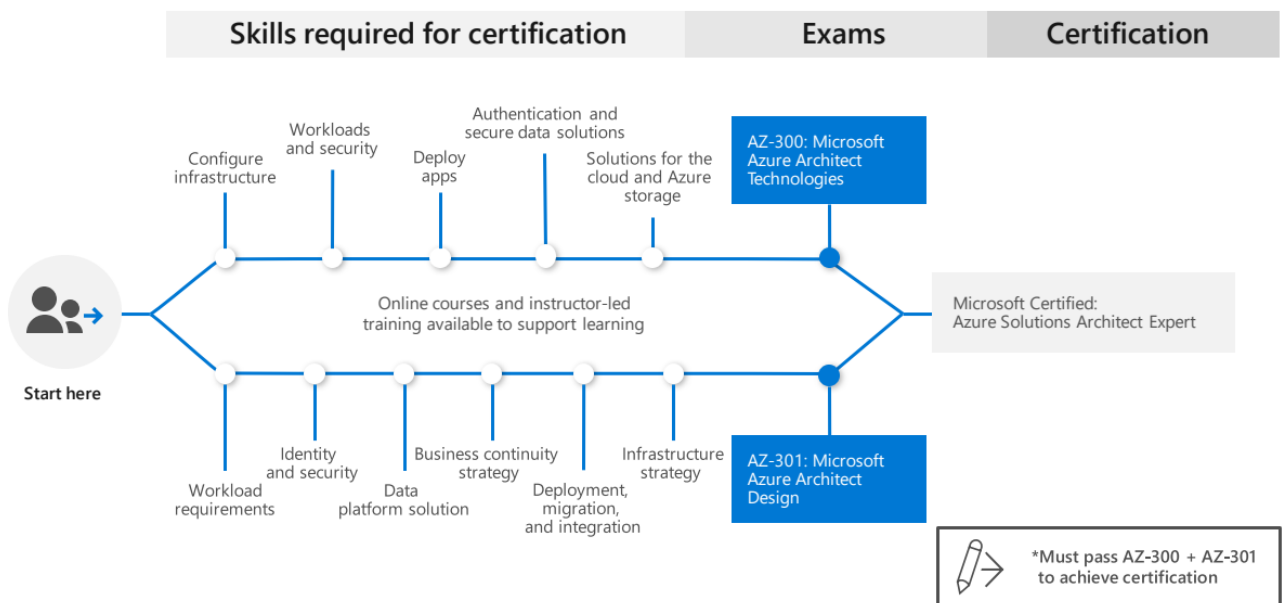
**INTRODUCTION | DATABASE ARCHITECT | NETWORK |  
APP SOLUTIONS | STORAGE DESIGN | SECURITY  
PLANNING| MIGRATION PLAN | MONITORING | COST**

**14 MODULE | 37 LABS | CERTIFICATION ASSISTANCE**

## QUOTATION AND COURSE OUTLINE

### MICROSOFT AZURE ARCHITECT PROFESSIONAL

### EXAM AZ 300- MICROSOFT AZURE ARCHITECT TECHNOLOGIES



### Course Materials

TechPledge will provide a customized set of Lecture Notes for each class scheduled along with Recoded video . You will be given a PDF file which you may make copies from, email to your participants, or make available via internal website.

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## Learning Path for Azure Solutions Architect

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Azure Architect Professionals must have skills needed to design solutions that run on Azure. A Microsoft Azure Solutions Architect must have expertise in compute, network, storage, and security. At the TechPledge we provide the training which is always updated inline with the Azure Solutions Architect Skills required by the industry and recommended by Microsoft. Below is the patch for training

### Evolve your Implementation Skills

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- *Azure architecture and service guarantees*
- *Manage services with Azure portal*
- *Security, responsibility and trust in Azure*
- *Apply and monitor infrastructure standards with Azure Policy.*
- *Control and organize Azure resources with Azure Resource Manager*

### Manage Resources in Azure

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- *Align requirements with cloud types and service models in Azure*
- *Control Azure services with the CLI*
- *Automate Azure tasks using scripts with PowerShell*
- *Predict costs and optimize spending for Azure*
- *Control and organize Azure resources with Azure Resource Manager*

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### Architect Great Solutions in Azure

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- *Pillars of a great Azure architecture*
  - *Design for security in Azure*
  - *Design for performance and scalability in Azure*
  - *Design for efficiency and operations in Azure*
  - *Design for availability and recoverability in Azure*
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## Abilities Validated by the Certification

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- Deploy and configure infrastructure
- Implement workloads and security
- Create and deploy apps
- Implement authentication and secure data
- Develop for the cloud and for Azure storage
- Determine workload requirements
- Design for identity and security
- Design a data platform solution
- Design a business continuity strategy
- Design for deployment, migration, and integration
- Design an infrastructure strategy

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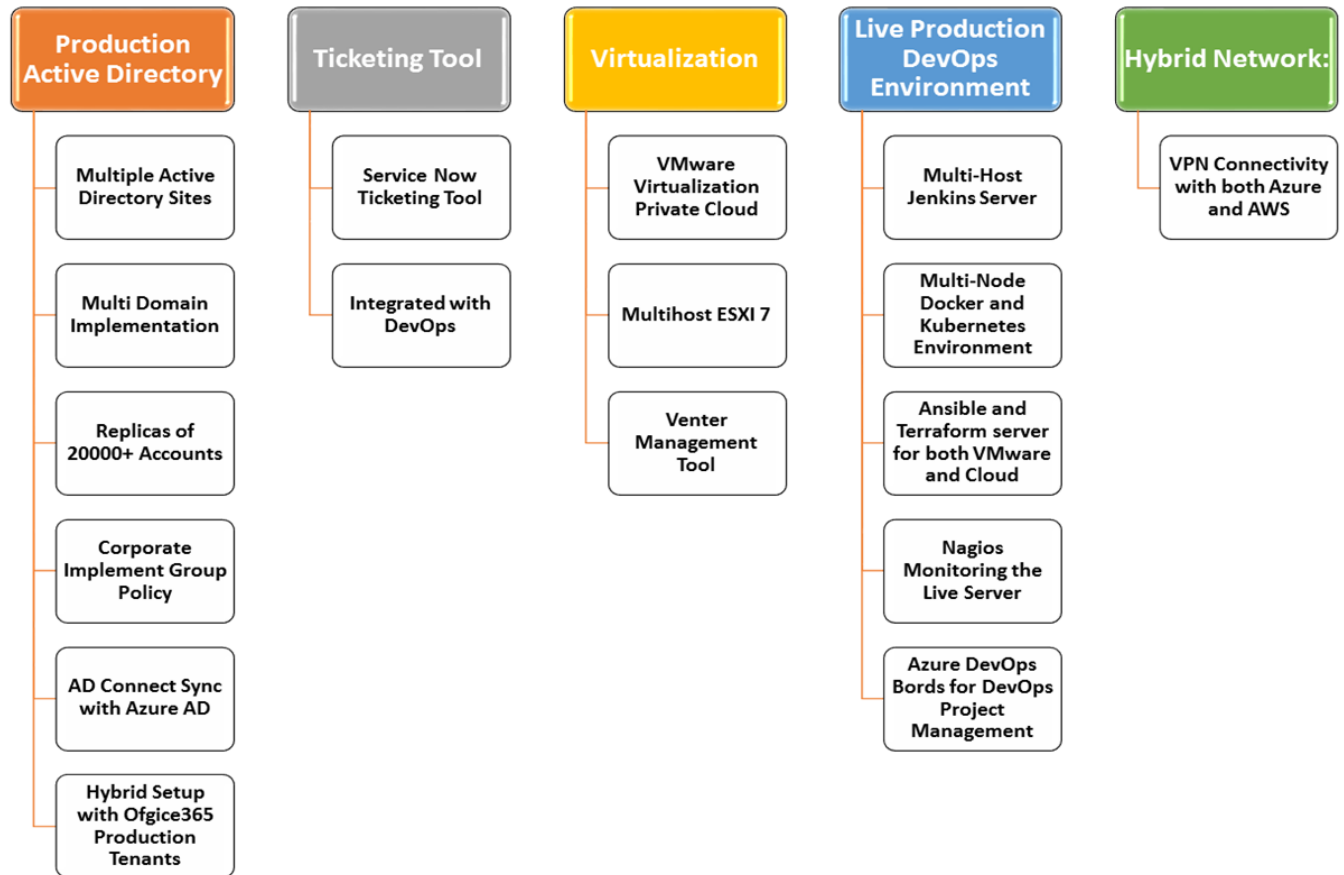
## Customer Immersion – Live Production Walkthrough

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6 Hours Live walkthrough the complete Infrastructure Integration and Migration Process in production environment with full setup of Infrastructure Like **AD, Microsoft SQL , Microsoft Exchange, File Server , ADFS and** DevOps Tool Like **Jenkins , Ansible , Docker , AWS Code Deploy , AWS Code Pipeline , Azure Pipeline and Azure ARM** and Development Environment with Maven, Visual Studio and Python.

The Complete Setups is using **100 of PowerShell & Linux Script** with **237 CI/CD scripts** (Jason, Yamal).

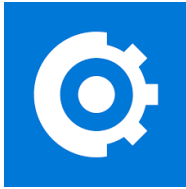
Below is the High-Level Setup Outline of our Customer Immersion Production Replicas. Student will get the access of this setup at end of the course for 6 hours with AD ID and Organization Email.



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## Learn while doing with our Sandbox Environment

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### Azure Sandbox

- Connect with Azure Portal through the TechPledge Provide sandbox environment and play with it will all labs which you want to try.
- Create, destroy, and build Practical, scenario-based applications with ease. Our pre-configured, auto-provisioned servers allow you to try new skills, risk-free.



### AWS Sandbox

- Connect with AWS Console through the TechPledge Provide sandbox environment and play with it will all labs which you want to try.
- Create, destroy, and build Practical, scenario-based applications with ease. Our pre-configured, auto-provisioned servers allow you to try new skills, risk-free.

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## Course Outline

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### Application Architecture Patterns in Azure

- Pattern Resources
- Performance Patterns
- Resiliency Patterns
- Scalability Patterns
- Data Patterns

### Designing Highly Available, Cost-efficient, Fault-tolerant, and Scalable Systems

- Planning and Designing Cloud Services
- How to design Cloud Services

- Monitoring and Logging
- Hybrid IT architectures
- **Lab 1:** Create a sample solution design for customer with draw.io
- **Lab 2:** Create a sample cost estimate for the customer requirement with proposed components

### Deploying Resources with Azure Resource Manager

- ARM Templates
- Role-Based Access Control (RBAC)
- Resource Policies
- Security
- Building Blocks
- **Lab3:** Create Resource Groups
- **Lab4:** Deploy an Virtual Machine Using ARM template
- **Lab 5:** Deploy an Webapp with ARM template from github

### Building Azure IaaS-Based Server Applications

- High Availability
- Templated Infrastructure
- Domain-Connected Machines
- **Lab6:** Deploy a Resource Group using Azure Cli
- **Lab7:** Deploy a Virtual Machine using Azure Cli
- **Lab8:** Deploy a Resource Group using PowerShell
- **Lab9:** Deploy a Virtual Machine using PowerShell

### Creating Managed Server Applications in Azure

- Infrastructure-Backed Platform-as-a-Service (PaaS)
- High-Performance Compute (HPC)
- Introduction to Containerization
- Introduction to Azure Container Service
- **Lab10:** Deploy Docker Image in Azure Container Service

### Authoring Serverless Applications in Azure

- Understanding Web App tiers
- Resource Group and Web Hosting Plans
- Supported language
- Scaling of Websites
- Deployment source
- Horizontal and Vertical Scaling
- Production and Test Deployment Slots
- Integrated web app with Code Repository like git hub
- Using Deployment center
- Use the Visual Studio and Dot net code to Create web app
- Publish Java Application in Web app
- **Lab11:** Create Web App with sample code, Do Horizontal Scaling and Vertical Scaling
- **Lab12:** Create Web App with code from Visual Studio

- **Lab13:** Create Web App with code from GitHub, Implement Deployment slots for Staging, UAT and Production and Implement Ci/CD

### Backing Azure Solutions with Azure Storage

- Azure Storage Pricing
- Azure Storage High Availability
- Azure Manage and Unmanage Disk
- Blob Storage
- Access Security in Block Storage
- Key Based Authentication for Blob Storage
- Connect and use blob storage using Java, Dot Net code
- Files Storage
- Queue Storage
- Overview of StorSimple
- **Lab14:** Create a Design decision Flowchart for storage selection
- **Lab15:** Create a Storage Account and Configure Blob Container.
- **Lab16:** Install Azure Storage Explorer, connect with secure string and connect the Storage
- **Lab17:** Create and Attached the additional Disk storage to Azure VM and Format it using NTFS

### Comparing Database Options in Azure

- Relational Database
- Understanding Database as a service
- SQL Database is not SQL Server
- Advance Capabilities
- Benefits of SQL database
- Scaling SQL database
- Connect SQL Database with Visual Studio or Java
- SQL database Unit Test
- Backup Options
- Hands-on Lab: Deploy SQL database on Azure
- NoSQL Services
- Azure Cosmos DB
- Azure Cosmos DB Provisioning and scalability
- Azure Cosmos DB Pricing Model
- **Lab18:** Deploy a CosmosDB Database Instance and Create a sample customer records
- **Lab19:** Deploy a SQL Server Database Instance and Connect SSMS Installed on-prem
- **Lab20:** Deploy a SQL Server Database Instance and Connect with Visual Studio form

### Networking Azure Application Components

- Design VNets On Azure
- Design Load Balancing Options
- Design External Connectivity
- **Lab21:** Design a VNet for a TPCDS Cloud Network

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- **Lab22:** Creating 4 VNETs with CIDR and Create Multiple Subnets and Connect Using VNet Peering

## Managing Security and Identity for Azure Solutions

- Security Monitoring
- Data Security
- Azure IAM
- Azure Security Center
- Use Azure Secure score
- Use Azure Advisor
- Azure Active Directory (Azure AD)
- Hybrid Identity
- Azure AD Application Integration
- **Lab23:** Create Users, Roles and Assign permission on Azure
- **Lab24:** Create a Recommendation chart for customer with Issues, Impact and Solution Steps for Performance, Security and Cost using Advisor and Secure Score
- **Lab25:** Review the customer immersion infra for Hybrid and Sync Identity
- **Lab26:** Create a Recommendation chart for customer with Issues

## Disaster Recovery Planning

- Disaster Recovery Terminology
- Introduction to Azure Disaster Recovery
- Azure High Availability Options
- Overview of Azure ASR
- Overview of Azure Migration
- Understand the Backup option in Azure
- **Lab27:** Create Backup for On-Prem File Data using Azure Backup
- **Lab28:** Create Replicas of VM to other regions using site recovery

## Monitoring and Automating Azure Solutions

- Application Monitoring
- Platform Monitoring
- Network Monitoring
- Alerting
- Azure Automation
- Auto-Scale
- **Lab29:** Create Backup for On-Prem File Data using Azure Backup
- **Lab30:** Use App Insight Application Dashboard to Monitor the Application

## Microsoft Tool

- MAP Tool



- Azure Pricing Calculator
- Azure Bandwidth Calculator
- Microsoft Solutions Architect
- **Lab31:** Review the Customer Immersion Environment with MAP result
- **Lab32** Create a price Estimate with proposed solutions in Azure
- **Lab33:** Review the Customer Immersion Environment with Azure Bandwidth

### Migrating Workloads on Azure

- Azure Migration Tool
- Azure Site Recovery
- Planning for Migration
- How to Migrate SQL Database to Azure (Planning)
- Migrate IIS hosted Application along with Code to Azure App Service (Planning)
- Sync the On-Prem Directory with Azure AD
- **Lab34** Review the Sync Identity (On-Prem AD with Azure AD) at Customer Immersion
- **Lab35:** Review the Sync Identity (On-Prem AD with Azure AD) at Customer Immersion
- **Lab36:** Perform the Live Migration of SQL database to Azure with Customer Immersion
- **Lab37:** Migrate the on-prem Hoisted website to Azure App at Customer Immersion

### Project:

**Project Title:** Design the complete solutions for TPCS to transition from on-prem to Azure Cloud

### Project Description:

- TPCS an Renowned Company based out of USA approached TechPledge Consulting regarding Migration of their on-prem infra to Azure cloud. They want the transition should be smooth and must be within the budget.

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## Course Fee

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Call for Price