

PR-701: Migrate Enterprise Applications

Day1

Planning

In this topic, Planning, starting from a common baseline understanding, you explore the Cloud Adoption Framework and app migration tool set, while determining the best choice of cloud service to host your application.

1	PR-701 Office hours: Orientation - Welcome to the class
2	Common web application architectures
3	Describe the core architectural components of Azure
4	N-tier architecture style
5	Microservice architecture style
6	PR-701 Chalk talk #1 - Understanding application architecture
7	Microsoft Cloud Adoption Framework for Azure
8	Prepare for successful cloud adoption with a well-defined strategy
9	Design an Azure compute solution
10	Choose a data storage approach in Azure
11	PR-701 Chalk talk #2: Planning for migration
12	Explore Azure App Service
13	Explore Azure Functions
14	PR-701 Chalk talk #3 - Introduction to Azure PaaS
15	Bonus - .NET architecture guides
16	Bonus - Enable automatic updates in a web application using Azure Functions and SignalR Service
17	Bonus - Decompose a monolithic application into a microservices architecture
18	Bonus - Design a geographically distributed application
19	Bonus - Choose the right Azure service for deploying your Java application
20	Bonus - Reliable web app pattern
21	Bonus - Migrate Tomcat applications to Tomcat on Azure App Service
22	Bonus - .NET migration cases for Azure App Service
23	PR-701 Facilitated labs/Case study time
24	Implement web apps
25	Case study - Application architectures
26	Compute solutions
27	Data storage and security
28	Rehost or migrate

Day 2

Migrate and modernize

In this topic, Migrate and modernize, you learn to migrate and configure your web apps into Azure App Services, function apps, and even container-based solutions. You explore implementation using modern application design principles to enable scalability and reliability.

1	PR-701 Chalk talk #4 - Deep dive into Azure App Service
2	Bonus - Migrate a web app to Azure App Service
3	Bonus - Migrate Java web applications to Azure App Service
4	Configure Azure App Service plans
5	Configure web app settings
6	Bonus - Stage a web app deployment for testing and rollback by using App Service deployment slots
7	Bonus - Scale an App Service web app to efficiently meet demand with App Service scale up and scale
8	Bonus - High-density hosting on Azure App Service using per-app scaling
9	Bonus - Deploy a Java EE (Jakarta EE) application to Azure
10	Bonus - Azure App Service Local Cache overview
11	PR-701 Office hours: General technical Q&A
12	Bonus - Publish an Angular, React, Svelte, or Vue JavaScript app with Azure Static Web Apps
13	Bonus - Run background tasks with WebJobs in Azure App Service
14	Develop Azure Functions
15	Execute Azure Functions with triggers
16	PR-701 Chalk talk #5 - App Services background processing
17	Bonus - Introduction to cloud-native apps on Azure
18	Bonus - Introduction to Docker containers
19	Bonus - Containerize and migrate ASP.NET applications to Azure App Service
20	Manage container images in Azure Container Registry
21	Bonus - Deploy and run a containerized web app with Azure App Service
22	Run container images in Azure Container Instances
23	Introduction to Azure Kubernetes Service
24	Configure a container app in Azure Container Apps

25	PR-701 Chalk talk #6 - Modernizing apps with containerization
26	PR-701 Facilitated labs/Case study time
27	Implement Azure Functions
28	Implement containerized solutions
29	Functions and Azure Container Instances
30	Using containerized solutions

Day3

Optimize applications

In this topic, Optimize applications, you have the opportunity to grow your skills beyond the basics by exploring advanced automation and optimization techniques, such as continuous deployment, caching to boost performance, key and API management, and event-based/message-based design patterns.

1	PR-701 Chalk talk #7 - Automating Azure App Service deployments
2	Bonus - Continuous deployment to App Service
3	Bonus - Deploy to App Service using GitHub Actions
4	Explore Azure Blob Storage
5	Bonus - Store application data with Azure Blob Storage
6	Develop for storage on content delivery networks
7	Bonus - Create a CDN for your website with Azure Content Delivery Network and blob services
8	PR-701 Office hours: General technical Q&A
9	Develop for Azure Cache for Redis
10	Implement Azure Key Vault
11	Implement managed identities
12	Implement Azure App Configuration
13	PR-701 Chalk talk #8 - Caching, configuration, and security
14	Bonus - Choose a messaging model in Azure to loosely connect your services
15	Bonus - Event-driven architecture style
16	Bonus - Explore Azure Event Grid
17	Bonus - Web-Queue-Worker architecture style

18	Discover Azure message queues
19	PR-701 Chalk talk #9 - API management and event-based solutions
20	PR-701 Facilitated labs/Case study time
21	Integrate caching and context delivery within solutions
22	Implement secure cloud solutions
23	Caching
24	Managed identity

Secure and monitor

In this topic, Secure and monitor, you discover how to master security and monitoring essentials for protecting and maintaining your web apps across multiple layers of the network stack, while implementing diagnostics and testing to bring application resilience.

1	PR-701 Chalk talk #10 - Certificates plus AuthN and AuthZ in App Service
2	Explore the Microsoft identity platform
3	Implement authentication by using the Microsoft Authentication Library
4	Bonus - Add and manage TLS/SSL certificates in Azure App Service
5	Bonus - Secure a custom DNS name with a TLS/SSL binding in Azure App Service
6	Bonus - Authentication and authorization in Azure App Service and Azure Functions
7	Bonus - Sign in users with Microsoft Entra ID in a Java web app
8	Bonus - Authenticate users with Azure Static Web Apps
9	PR-701 Office hours: General technical Q&A
10	Bonus - Azure App Service access restrictions
11	Load balance HTTP(S) traffic in Azure
12	Bonus - Load balance your web service traffic with Azure Front Door
13	Bonus - Introduction to Azure Web Application Firewall
14	PR-701 Chalk talk #11 - Scaling with load balancing and Firewall services
15	Bonus - Back up and restore your app in Azure App Service
16	Bonus - Azure App Service diagnostics overview
17	Monitor app performance
18	Bonus - Monitoring App Service
19	Bonus - Continuously validate and test mission-critical workloads

20	Bonus - Troubleshoot web app down scenarios with App Service diagnostics
21	Configure Log Analytics
22	PR-701 Chalk talk #12 - Monitoring, backups, and performance testing
23	PR-701 Facilitated labs/Case study time
24	Implement user authentication and authorization
25	Load balance HTTP(S) traffic in Azure
26	Monitoring
27	User and App AuthN and AuthZ
28	Comparing Azure load balancing services
29	Layer 7 load balancing