


Course Name	AZ-305 Designing Microsoft Azure Infrastructure Solutions	
About the Course	This course will prepare you to prove your skills in designing, governing, and migrating to reliable, scalable, secure, and performant solutions within Azure. Throughout the course, we'll learn about the services, features, pricing, and licensing and also how you can apply the knowledge you gain when architecting Azure solutions in the real world.	
Key Skills You Will Learn	Design identity, governance, and monitoring solutions, Design data storage solutions, Design business continuity solutions, Design infrastructure solutions	
Course Pre-Requisite	Conceptual knowledge of compute, applications, networking and migration solutions. Working experience with architecting compute and network solutions.	
Target Audience	This course is suitable for IT professionals with experience in Azure who want to become Azure solution architects, Solution architects, Cloud engineers, Azure infrastructure specialists, DevOps engineers, Technical decision makers, Systems administrators, Enterprise architects, Technology managers, Developers, and Data engineers	
Job prospects with this role	Cloud architect, Solutions architect, Software architect, Cloud engineer, IT consultant	
Course Duration	~ 40 Hrs	
Course Customisation	Not applicable	
Certification	READYBELL AZ-305 Designing Microsoft Azure Infrastructure Solutions Certificate	
Mode of Training	Instructor-led 100% Online or 100% Classroom (Salt Lake, Kolkata - India) or hybrid mode (Online + Classroom) as suitable for the learner	
Course Fees	Please contact us	
Refund Policy	Get a 3-hours free trial during which you can cancel at no penalty. After that, we don't give refunds	
Job Assistance	Will assist candidate in securing a suitable job	
Contact	READYBELL SOFTWARE SERVICES PVT. LIMITED AH 12, SALT LAKE SECTOR 2, KOLKATA (INDIA) - 700 091 E-MAIL: contact@readybellsoftware.com PH: +91 - 9147708045/9674552097, +91 - 33-79642872	 <p>ReadyBell Software Services Pvt. Ltd.</p>

CURRICULUM		
Topic	Sub-Topic	Duration (Hrs)
AZ-305 Designing Microsoft Azure Infrastructure Solutions	AZ-305 Microsoft Azure Architect Design Prerequisites	40 Hrs
	Module 1: Describe the core architectural components of Azure	
	Introduction	
	What is Microsoft Azure	
	Get started with Azure accounts	
	Exercise - Explore the Learn sandbox	
	Describe Azure physical infrastructure	
	Describe Azure management infrastructure	
	Exercise - Create an Azure resource	
	Module 2: Describe Azure compute and networking services	
	Introduction	
	Describe Azure virtual machines	
	Exercise - Create an Azure virtual machine	
	Describe Azure virtual desktop	
	Describe Azure containers	
	Describe Azure functions	
	Describe application hosting options	
	Describe Azure virtual networking	
	Exercise - Configure network access	
	Describe Azure virtual private networks	
	Describe Azure ExpressRoute	
	Describe Azure DNS	
	Module 3: Describe Azure storage services	
	Introduction	
	Describe Azure storage accounts	
	Describe Azure storage redundancy	
	Describe Azure storage services	
	Exercise - Create a storage blob	
	Identify Azure data migration options	
	Identify Azure file movement options	
	Module 4: Describe Azure identity, access, and security	
	Introduction	
	Describe Azure directory services	
	Describe Azure authentication methods	
	Describe Azure external identities	
	Describe Azure conditional access	
	Describe Azure role-based access control	

	Describe Zero Trust model	
	Describe defense-in-depth	
	Describe Microsoft Defender for Cloud	
	Module 5: Microsoft Cloud Adoption Framework for Azure	
	Introduction	
	Overview	
	Define strategy	
	Plan	
	Ready	
	Adopt	
	Govern and manage	
	Module 6: Introduction to the Microsoft Azure Well-Architected Framework	
	Introduction	
	Azure Well-Architected Framework pillars	
	Cost optimization	
	Operational excellence	
	Performance efficiency	
	Reliability	
	Security	
	AZ-305: Design identity, governance, and monitor solutions	
	Module 7: Design governance	
	Introduction	
	Design for governance	
	Design for management groups	
	Design for subscriptions	
	Design for resource groups	
	Design for resource tags	
	Design for Azure Policy	
	Design for role-based access control (RBAC)	
	Design for Azure landing zones	
	Module 8: Design authentication and authorization solutions	
	Introduction	
	Design for identity and access management (IAM)	
	Design for Microsoft Entra ID	
	Design for Microsoft Entra business-to-business (B2B)	
	Design for Azure Active Directory B2C (business-to-customer)	
	Design for conditional access	
	Design for identity protection	
	Design for access reviews	
	Design service principals for applications	

	Design managed identities	
	Design for Azure Key Vault	
	Module 9: Design a solution to log and monitor Azure resources	
	Introduction	
	Design for Azure Monitor data sources	
	Design for Azure Monitor Logs (Log Analytics) workspaces	
	Design for Azure Workbooks and Azure insights	
	Design for Azure Data Explorer	
	AZ-305: Design business continuity solutions	
	Module 10: Describe high availability and disaster recovery strategies	
	Introduction	
	Describe recovery time objective and recovery point objective	
	Explore high availability and disaster recovery options	
	Describe Azure high availability and disaster recovery features for Azure Virtual Machines	
	Describe high availability and disaster recovery options for PaaS deployments	
	Explore an IaaS high availability and disaster recovery solution	
	Describe hybrid solutions	
	Module 11: Design a solution for backup and disaster recovery	
	Introduction	
	Design for backup and recovery	
	Design for Azure Backup	
	Design for Azure blob backup and recovery	
	Design for Azure files backup and recovery	
	Design for Azure virtual machine backup and recovery	
	Design for Azure SQL backup and recovery	
	Design for Azure Site Recovery	
	AZ-305: Design data storage solutions	
	Module 12: Design a data storage solution for non-relational data	
	Introduction	
	Design for data storage	
	Design for Azure storage accounts	
	Design for data redundancy	
	Design for Azure Blob Storage	
	Design for Azure Files	
	Design for Azure managed disks	
	Design for storage security	
	Module 13: Design a data storage solution for relational data	
	Introduction	
	Design for Azure SQL Database	

	Design for Azure SQL Managed Instance	
	Design for SQL Server on Azure Virtual Machines	
	Recommend a solution for database scalability	
	Recommend a solution for database availability	
	Design security for data at rest, data in motion, and data in use	
	Design for Azure SQL Edge	
	Design for Azure Cosmos DB and Table Storage	
	Module 14: Design data integration	
	Introduction	
	Design a data integration solution with Azure Data Factory	
	Design a data integration solution with Azure Data Lake	
	Design a data integration and analytic solution with Azure Databricks	
	Design a data integration and analytic solution with Azure Synapse Analytics	
	Design strategies for hot, warm, and cold data paths	
	Design an Azure Stream Analytics solution for data analysis	
	AZ-305: Design infrastructure solutions	
	Module 15: Design an Azure compute solution	
	Introduction	
	Choose an Azure compute service	
	Design for Azure Virtual Machines solutions	
	Design for Azure Batch solutions	
	Design for Azure App Service solutions	
	Design for Azure Container Instances solutions	
	Design for Azure Kubernetes Service solutions	
	Design for Azure Functions solutions	
	Design for Azure Logic Apps solutions	
	Module 16: Design an application architecture	
	Introduction	
	Describe message and event scenarios	
	Design a messaging solution	
	Design an Azure Event Hubs messaging solution	
	Design an event-driven solution	
	Design a caching solution	
	Design API integration	
	Design an automated app deployment solution	
	Design an app configuration management solution	
	Module 17: Design network solutions	
	Introduction	
	Recommend a network architecture solution based on workload requirements	
	Design patterns for Azure network connectivity services	

	Design outbound connectivity and routing	
	Design for on-premises connectivity to Azure Virtual Network	
	Choose an application delivery service	
	Design for application delivery services	
	Design for application protection services	
	Module 18: Design migrations	
	Introduction	
	Evaluate migration with the Cloud Adoption Framework	
	Describe the Azure migration framework	
	Assess your on-premises workloads	
	Select a migration tool	
	Migrate your structured data in databases	
	Select an online storage migration tool for unstructured data	
	Migrate offline data	
	Build great solutions with the Microsoft Azure Well-Architected Framework	
	Module 19: Introduction to the Microsoft Azure Well-Architected Framework	
	Introduction	
	Azure Well-Architected Framework pillars	
	Cost optimization	
	Operational excellence	
	Performance efficiency	
	Reliability	
	Security	
	Module 20: Microsoft Azure Well-Architected Framework - Cost Optimization	
	Introduction	
	Develop cost-management discipline	
	Design with a cost-efficiency mindset	
	Design for usage optimization	
	Design for rate optimization	
	Monitor and optimize over time	
	Module 21: Microsoft Azure Well-Architected Framework - Operational excellence	
	Introduction	
	Embrace DevOps culture	
	Establish development standards	
	Evolve operations with observability	
	Deploy with confidence	
	Automate for efficiency	
	Adopt safe deployment practices	

	Module 22: Microsoft Azure Well-Architected Framework - Performance efficiency	
	Introduction	
	Negotiate realistic performance targets	
	Design to meet capacity requirements	
	Achieve and sustain performance	
	Improve efficiency through optimization	
	Module 23: Microsoft Azure Well-Architected Framework - Reliability	
	Introduction	
	Design for business requirements	
	Design for resilience	
	Design for recovery	
	Design for operations	
	Keep it simple	
	Module 24: Microsoft Azure Well-Architected Framework - Security	
	Introduction	
	Plan your security readiness	
	Design to protect confidentiality	
	Design to protect integrity	
	Design to protect availability	
	Sustain and evolve your security posture	
	Accelerate cloud adoption with the Microsoft Cloud Adoption Framework for Azure	
	Module 25: Getting started with the Microsoft Cloud Adoption Framework for Azure	
	Introduction	
	Customer narrative	
	Common blockers	
	Module 26: Prepare for successful cloud adoption with a well-defined strategy	
	Introduction	
	Customer narrative	
	Capture strategic motivation	
	Define objectives and key results	
	Evaluate financial considerations	
	Understand technical considerations	
	Create a business case	
	Module 27: Prepare for cloud adoption with a data-driven plan	
	Introduction	
	Customer narrative	

	Exercise - Deploy your first cloud adoption plan	
	Exercise - Customize your cloud adoption plan	
	Module 28: Choose the best Azure landing zone to support your requirements for cloud operations	
	Introduction	
	Customer narrative	
	Common operating models	
	Design areas for Azure landing zones	
	Design principles for Azure landing zones	
	Journey to the target architecture	
	Choose an Azure landing zone option	
	Deploy the Azure landing zone accelerator	
	Enhance your landing zone	
	Module 29: Use the Cloud Adoption Framework Migrate methodology to migrate your workload to the cloud	
	Introduction	
	Prepare for your migration	
	Assess your workload	
	Deploy your assets	
	Release your workload	
	Module 30: Address tangible risks with the Govern methodology of the Cloud Adoption Framework for Azure	
	Introduction	
	Customer narrative	
	Govern methodology	
	Assess cloud governance risks	
	Document cloud governance policies	
	Enforce cloud governance policies	
	Monitor cloud governance	
	Module 31: Ensure stable operations and optimization across all supported workloads deployed to the cloud	
	Introduction	
	Establish business commitments	
	Deploy an operations baseline	
	Protect and recover	
	Enhance an operations baseline	
	Manage platform and workload specialization	
	Module 32: Innovate applications by using Azure cloud technologies	
	Introduction	

	Follow the innovation lifecycle	
	Azure technologies for the build process	
	Infuse your applications with AI	
	Azure technologies for measuring business impact	
	Azure technologies for the learn process	
	Module 33: Prepare for cloud security by using the Microsoft Cloud Adoption Framework for Azure	
	Introduction	
	Customer narrative	
	Methodology	
	Security roles and responsibilities	
	Simplify compliance and security	
	Simplify security implementation	
	Security tools and policies	
	To register for this course please e-mail/call us	