ReadyBell
Software Services Pvt. Ltd.

Course Name	AZ-104: Microsoft Azure Administrator
About the Course	This course teaches IT Professionals how to manage their Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, back up and share data, and monitor your solution
Key Skills You Will Learn	Manage Azure identities and governance, Implement and manage storage, Deploy and manage Azure compute resources, Implement and manage virtual networking, Monitor and maintain Azure resources
Course Pre-Requisite	You should be familiar with: Operating systems, Networking, Servers, Virtualization, PowerShell, Azure CLI, The Azure portal, Azure Resource, Manager templates, Microsoft Entra ID
Target Audience	This course is suitable for Azure Administrators or anyone who wants to learn Cloud, pursue career in Cloud, Cloud Engineers/Architects/Managers, Software Developers, DevOps Engineers, Network Engineers, Data Analysts etc.
Job prospects with this role	Azure Administrator Associate, Azure Administrator, Azure Data Engineer, Azure Data Scientist, Azure Database Administrator, Cloud Architect or DevOps Engineer
Course Duration	~ 40 Hrs
Course Customisation	No job assistance
Certification	READYBELL AZ-104: Microsoft Azure Administrator 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**

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CURRICULUM		
Topic	**Sub-Topic**	**Duration (Hrs)**
AZ-104: Microsoft Azure Administrator	**AZ-104: Prerequisites for Azure administrators**	40 Hrs
	Module 1: Introduction to Azure Cloud Shell	
	Introduction	
	What is Azure Cloud Shell?	
	How does Azure Cloud Shell work?	
	When should you use Azure Cloud Shell?	
	Module 2: Introduction to Bash	
	Introduction	
	What is Bash?	
	Bash fundamentals	
	Bash commands and operators	
	Exercise - Try Bash	
	Exercise - Terminate a misbehaving process	
	Exercise - Use Bash and grep to filter CLI output	
	Module 3: Introduction to PowerShell	
	Introduction	
	What is PowerShell?	
	Exercise - Run your first PowerShell commands	
	Locate commands	
	AZ-104: Manage identities and governance in Azure	
	Module 4: Understand Microsoft Entra ID	
	Introduction	
	Examine Microsoft Entra ID	
	Compare Microsoft Entra ID and Active Directory Domain Services	
	Examine Microsoft Entra ID as a directory service for cloud apps	
	Compare Microsoft Entra ID P1 and P2 plans	
	Examine Microsoft Entra Domain Services	
	Module 5 : Configure user and group accounts	
	Introduction	
	Create user accounts	
	Manage user accounts	
	Create bulk user accounts	
	Create group accounts	
	Create administrative units	

	Module 6: Configure subscriptions	
	Introduction	
	Identify Azure regions	
	Implement Azure subscriptions	
	Obtain an Azure subscription	
	Identify Azure subscription usage	
	Implement Microsoft Cost Management	
	Apply resource tagging	
	Apply cost savings	
	Module 7: Configure Azure Policy	
	Introduction	
	Create management groups	
	Implement Azure policies	
	Create Azure policies	
	Create policy definitions	
	Create an initiative definition	
	Scope the initiative definition	
	Determine compliance	
	Interactive lab simulation	
	Module 8: Manage users and groups in Microsoft Entra ID	
	Introduction	
	What is Microsoft Entra ID?	
	Create and manage users	
	Create and manage groups	
	Use roles to control resource access	
	Connect Active Directory to Microsoft Entra ID with Microsoft Entra Connect	
	Describe the purpose of Azure Advisor	
	Describe Azure Service Health	
	Describe Azure Monitor	
	Module 9: Secure your Azure resources with Azure role-based access control (Azure RBAC)	
	Introduction	
	What is Azure RBAC?	
	Knowledge check - What is Azure RBAC?	
	Exercise - List access using Azure RBAC and the Azure portal	
	Exercise - Grant access using Azure RBAC and the Azure portal	
	Exercise - View activity logs for Azure RBAC changes	
	Knowledge check - Using Azure RBAC	

	Module 10: Allow users to reset their password with Microsoft Entra self-service password reset	
	Introduction	
	What is self-service password reset in Microsoft Entra ID?	
	Implement Microsoft Entra self-service password reset	
	AZ-104: Configure and manage virtual networks for Azure administrators	
	Module 11: Configure virtual networks	
	Introduction	
	Plan virtual networks	
	Create subnets	
	Create virtual networks	
	Plan IP addressing	
	Create public IP addressing	
	Associate public IP addresses	
	Allocate or assign private IP addresses	
	Interactive lab simulation	
	Module 12: Configure network security groups	
	Introduction	
	Implement network security groups	
	Determine network security group rules	
	Determine network security group effective rules	
	Create network security group rules	
	Implement application security groups	
	Interactive lab simulation	
	Module 13:Configure Azure Virtual Network peering	
	Introduction	
	Determine Azure Virtual Network peering uses	
	Determine gateway transit and connectivity	
	Create virtual network peering	
	Extend peering with user-defined routes and service chaining	
	Interactive lab simulation	
	Module 14: Configure Azure Load Balancer	
	Introduction	
	Determine Azure Load Balancer uses	
	Implement a public load balancer	
	Implement an internal load balancer	
	Determine load balancer SKUs	
	Create back-end pools	
	Create health probes	
	Create load balancer rules	
	Interactive lab simulation	

	Module 15: Configure Azure Application Gateway	
	Introduction	
	Implement Azure Application Gateway	
	Determine Azure Application Gateway routing	
	Configure Azure Application Gateway components	
	Module 16: Design an IP addressing schema for your Azure deployment	
	Introduction	
	Network IP addressing and integration	
	Public and private IP addressing in Azure	
	Plan IP addressing for your networks	
	Exercise - Design and implement IP addressing for Azure virtual networks	
	Module 17: Distribute your services across Azure virtual networks and integrate them by using virtual network peering	
	Introduction	
	Connect services by using virtual network peering	
	Exercise - Prepare virtual networks for peering by using Azure CLI commands	
	Exercise - Configure virtual network peering connections by using Azure CLI commands	
	Exercise - Verify virtual network peering by using SSH between Azure virtual machines	
	Module 18: Host your domain on Azure DNS	
	Introduction	
	What is Azure DNS?	
	Configure Azure DNS to host your domain	
	Exercise - Create a DNS zone and an A record by using Azure DNS	
	Dynamically resolve resource name by using alias record	
	Exercise - Create alias records for Azure DNS	
	Module 19: Manage and control traffic flow in your Azure deployment with routes	
	Introduction	
	Identify routing capabilities of an Azure virtual network	
	Exercise - Create custom routes	
	What is an NVA?	
	Exercise - Create an NVA and virtual machines	
	Exercise - Route traffic through the NVA	
	Module 20: Improve application scalability and resiliency by using Azure Load Balancer	
	Introduction	
	Azure Load Balancer features and capabilities	
	Configure a public load balancer	

	Exercise - Configure a public load balancer	
	Internal load balancer	
	AZ-104: Implement and manage storage in Azure	
	Module 21: Configure storage accounts	
	Introduction	
	Implement Azure Storage	
	Explore Azure Storage services	
	Determine storage account types	
	Determine replication strategies	
	Access storage	
	Secure storage endpoints	
	Module 22: Configure Azure Blob Storage	
	Introduction	
	Implement Azure Blob Storage	
	Create blob containers	
	Assign blob access tiers	
	Add blob lifecycle management rules	
	Determine blob object replication	
	Upload blobs	
	Determine Blob Storage pricing	
	Interactive lab simulation	
	Module 23: Configure Azure Storage security	
	Introduction	
	Review Azure Storage security strategies	
	Create shared access signatures	
	Identify URI and SAS parameters	
	Determine Azure Storage encryption	
	Create customer-managed keys	
	Apply Azure Storage security best practices	
	Interactive lab simulation	
	Module 24: Configure Azure Files and Azure File Sync	
	Introduction	
	Compare storage for file shares and blob data	
	Manage Azure file shares	
	Create file share snapshots	
	Implement soft delete for Azure Files	
	Use Azure Storage Explorer	
	Deploy Azure File Sync	

	Module 25: Create an Azure Storage account	
	Introduction	
	Decide how many storage accounts you need	
	Choose your account settings	
	Choose an account creation tool	
	Exercise - Create a storage account using the Azure portal	
	Knowledge check - Create a storage account	
	Module 26: Upload, download, and manage data with Azure Storage Explorer	
	Introduction	
	Connect Azure Storage Explorer to a storage account	
	Exercise - Connect Azure Storage Explorer to a storage account	
	Connect Azure Storage Explorer to Azure Data Lake Storage	
	Exercise - Connect Azure Storage Explorer to Azure Data Lake Storage	
	AZ-104: Deploy and manage Azure compute resources	
	Module 27: Configure virtual machines	
	Introduction	
	Review cloud services responsibilities	
	Plan virtual machines	
	Determine virtual machine sizing	
	Determine virtual machine storage	
	Create virtual machines in the Azure portal	
	Connect to virtual machines	
	Interactive lab simulation	
	Module 28: Configure virtual machine availability	
	Introduction	
	Plan for maintenance and downtime	
	Create availability sets	
	Review update domains and fault domains	
	Review availability zones	
	Compare vertical and horizontal scaling	
	Implement Azure Virtual Machine Scale Sets	
	Create Virtual Machine Scale Sets	
	Implement autoscale	
	Configure autoscale	
	Interactive lab simulation	
	Module 29: Configure Azure App Service plans	
	Introduction	
	Implement Azure App Service plans	
	Determine Azure App Service plan pricing	
	Scale up and scale out Azure App Service	

	Configure Azure App Service autoscale	
	Module 30: Configure Azure App Service	
	Introduction	
	Implement Azure App Service	
	Create an app with App Service	
	Explore continuous integration and deployment	
	Create deployment slots	
	Add deployment slots	
	Secure your App Service app	
	Create custom domain names	
	Back up and restore your App Service app	
	Use Azure Application Insights	
	Interactive lab simulation	
	Module 31: Configure Azure Container Instances	
	Introduction	
	Compare containers to virtual machines	
	Review Azure Container Instances	
	Implement container groups	
	Review Azure Container Apps	
	Interactive lab simulation	
	Module 32: Manage virtual machines with the Azure CLI	
	What is the Azure CLI?	
	Exercise - Create a virtual machine	
	Exercise - Test your new virtual machine	
	Exercise - Explore other VM images	
	Exercise - Sizing VMs properly	
	Exercise - Query system and runtime information about the VM	
	Exercise - Start and stop your VM with the Azure CLI	
	Exercise - Install software on your VM	
	Module 33: Create a Windows virtual machine in Azure	
	Introduction	
	Create a Windows virtual machine in Azure	
	Exercise - Create a Windows virtual machine	
	Use RDP to connect to Windows Azure virtual machines	
	Exercise - Connect to a Windows virtual machine using RDP	
	Configure Azure virtual machine network settings	
	Module 34: Host a web application with Azure App Service	
	Introduction	
	Create a web app in the Azure portal	
	Exercise - Create a web app in the Azure portal	

	Prepare the web application code	
	Exercise - Write code to implement a web application	
	Deploy code to App Service	
	Exercise - Deploy your code to App Service	
	AZ-104: Monitor and back up Azure resources	
	Module 35: Introduction to Azure Backup	
	Introduction	
	What is Azure Backup?	
	How Azure Backup works	
	When to use Azure Backup	
	Module 36: Configure Azure Monitor	
	Introduction	
	Describe Azure Monitor key capabilities	
	Describe Azure Monitor components	
	Define metrics and logs	
	Identify monitoring data and tiers	
	Describe activity log events	
	Query the activity log	
	Interactive lab simulation	
	Module 37: Configure Log Analytics	
	Introduction	
	Determine Log Analytics uses	
	Create a Log Analytics workspace	
	Create Kusto queries	
	Structure Log Analytics queries	
	Module 38: Configure Network Watcher	
	Introduction	
	Describe Azure Network Watcher features	
	Review IP flow verify diagnostics	
	Review next hop diagnostics	
	Visualize the network topology	
	Module 39: Improve incident response with Azure Monitor alerts	
	Introduction	
	Explore the different alert types that Azure Monitor supports	
	Use metric alerts for alerts about performance issues in your Azure environment	
	Exercise - Use metric alerts to alert on performance issues in your Azure environment	
	Use log search alerts to alert on events in your application	
	Use activity log alerts to alert on events within your Azure infrastructure	

	Use action groups and alert processing rules to send notifications when an alert is fired	
	Exercise -Use an activity log alert and an action group to notify users about events in your Azure infrastructure	
	Module 40: Analyze your Azure infrastructure by using Azure Monitor logs	
	Introduction	
	Features of Azure Monitor logs	
	Create basic Azure Monitor log queries to extract information from log data	
	Exercise - Create basic Azure Monitor log queries to extract information from log data	
	Module 41: Monitor your Azure virtual machines with Azure Monitor	
	Introduction	
	Monitoring for Azure VMs	
	Monitor VM host data	
	Use Metrics Explorer to view detailed host metrics	
	Collect client performance counters by using VM insights	
	Collect VM client event logs	
To register for this course please e-mail/call us		