

99 Azure interview questions to hire top engineers

Questions

1. What is cloud computing, and why is Microsoft Azure an example of it?
2. Imagine you have lots of toys (data). How would Azure help you keep them safe and organized in the cloud?
3. Can you explain the difference between Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS), using building blocks as an analogy?
4. What are Azure Regions and Availability Zones, and why are they important for keeping applications running smoothly?
5. What is the Azure portal, and how would you use it to create a simple virtual machine?
6. Explain what a Virtual Machine is in Azure and why would someone want to use one.
7. What is Azure Storage, and what are the different types of storage it offers (like Blob, Queue, Table, File)?
8. If you wanted to build a website, how could you use Azure App Service?
9. What is Azure Active Directory, and how is it used for managing users and their access in Azure?
10. Describe a scenario where you might use Azure Functions (serverless computing).
11. What is the Azure Marketplace, and what kind of things can you find there?
12. How does Azure help with making sure your applications are secure?
13. What is scaling in the cloud, and how does Azure help you scale your applications?
14. Explain what Azure Resource Groups are and how they help you organize your Azure resources.
15. What is Azure Monitor, and why is monitoring important for cloud applications?
16. If a website hosted on Azure suddenly became very slow, what are some basic troubleshooting steps you might take?
17. What are some of the benefits of using Azure over traditional on-premises infrastructure?
18. What does it mean to deploy a resource to Azure? Give an example.
19. What is an Azure subscription and why is it important?
20. Describe a situation where you would use the Azure command-line interface (CLI) or PowerShell.
21. How does Azure support different operating systems like Windows and Linux?
22. What are some ways to keep the cost of running applications in Azure under control?
23. What is cloud computing, like you're explaining it to a kid?
24. Can you describe Azure in simple terms?
25. What's a virtual machine (VM) in Azure? Pretend I've never heard of it.
26. What is Azure Resource Group, and why is it useful?
27. What's the difference between Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS)? Give a simple example of each.
28. What is Azure Storage? Give me some examples of the different types.
29. What is Azure Active Directory (Azure AD), and why is it important?
30. What does 'scalability' mean in the context of Azure?
31. What does 'high availability' mean, and how does Azure help with it?
32. What is the Azure portal, and what can you do with it?
33. What is Azure CLI, and why would you use it?
34. What is Azure PowerShell, and what's it used for?
35. What's the difference between public, private, and hybrid clouds?
36. What are some security considerations when using Azure?
37. What is Azure Functions? Explain the concept simply.
38. What is Azure Logic Apps? How does it work?
39. What is an Azure subscription, and why do you need one?
40. What are Azure regions and availability zones, and why are they important?
41. What is Azure DevOps? What is it used for?
42. What is Infrastructure as Code (IaC), and how does it relate to Azure?
43. What is Azure Monitor, and what does it do?
44. What is Azure Cost Management, and why is it needed?
45. What is the difference between scaling up and scaling out?
46. What are some advantages of using Azure over traditional on-premises infrastructure?
47. What are some of the challenges of migrating to Azure?
48. What is a container, and why are containers useful in Azure?
49. What is Kubernetes, and how does it relate to Azure?
50. What is serverless computing? How can Azure Functions and Logic Apps help?
51. Can you describe a situation where you would use Azure?
52. Explain Azure Resource Manager (ARM) templates and how they help with infrastructure as code. Can you describe a scenario where ARM templates would be particularly useful?
53. What are Azure Virtual Machine Scale Sets, and when would you choose to use them instead of individual virtual machines?
54. Describe the difference between Azure Blob Storage tiers (Hot, Cool, Archive) and how you would choose the appropriate tier for different data storage needs.
55. Explain the purpose of Azure Load Balancer and how it distributes traffic to backend servers. What are the different types of Azure Load Balancers?
56. What is Azure Key Vault, and how does it help with managing secrets and encryption keys in Azure? How do you grant access to secrets?
57. Describe the different Azure networking options, such as Virtual Networks (VNETs), subnets, and Network Security Groups (NSGs). How do they work together to secure your Azure resources?
58. What is Azure Active Directory (Azure AD), and how does it differ from on-premises Active Directory? How is it used for authentication and authorization in Azure?
59. Explain the concept of Azure Functions and how they can be used to build serverless applications. What are some common use cases for Azure Functions?
60. What are Azure Logic Apps, and how do they help with automating workflows and integrating different systems? Give an example scenario.
61. Describe the different types of Azure Storage accounts (General-purpose v2, Blob storage, etc.) and their use cases. How do you choose the appropriate storage account type?
62. What is Azure Cosmos DB, and how does it differ from traditional relational databases? What are the consistency levels offered by Cosmos DB?
63. Explain how you would implement a hybrid connectivity solution between your on-premises network and Azure, using services like Azure VPN Gateway or Azure ExpressRoute.
64. What are Azure policies and how can they be used to enforce compliance and governance in Azure environments?
65. Describe the purpose of Azure Service Bus and how it facilitates asynchronous messaging between different applications and services.
66. What is Azure Monitor, and how does it help with monitoring the health and performance of your Azure resources? What kinds of metrics can you collect?
67. Explain how you would implement a CI/CD pipeline for deploying applications to Azure using Azure DevOps.
68. What is Azure Kubernetes Service (AKS), and how does it simplify the deployment and management of containerized applications?
69. Describe the role of Azure Front Door and how it can improve the performance and security of your web applications. What are the differences between Front Door and Azure Application Gateway?
70. What are Azure Resource Groups and how should they be used to organize and manage Azure resources effectively? What are some best practices for using Resource Groups?
71. Explain the concept of autoscaling in Azure and how you would configure it for different types of Azure resources, such as virtual machines or web apps.
72. How would you design a highly available and scalable web application using Azure App Service and Azure SQL Database?
73. Explain your approach to implementing a hybrid cloud solution with Azure, including networking and security considerations.
74. Describe a time you had to troubleshoot a complex performance issue in an Azure environment. What tools and techniques did you use?
75. How do you approach automation and infrastructure as code (IaC) in Azure using tools like Terraform or Azure Resource Manager (ARM) templates?
76. What are the key differences between Azure Service Bus and Azure Event Hubs, and when would you choose one over the other?
77. Explain your experience with implementing and managing Azure Kubernetes Service (AKS) clusters, including scaling and security best practices.
78. How would you design a disaster recovery strategy for a critical application running in Azure, considering RTO and RPO requirements?
79. Describe your experience with Azure DevOps, including CI/CD pipelines, release management, and testing strategies.
80. How do you ensure the security of data at rest and in transit in Azure, including encryption, access control, and compliance requirements?
81. Explain your approach to monitoring and logging in Azure, including the use of Azure Monitor and other monitoring tools.
82. How would you optimize the cost of an Azure environment while maintaining performance and availability?
83. Describe your experience with implementing serverless architectures using Azure Functions and Logic Apps.
84. How do you approach identity and access management in Azure, including the use of Azure Active Directory (Azure AD) and role-based access control (RBAC)?
85. Explain your experience with migrating on-premises workloads to Azure, including assessment, planning, and execution strategies.
86. How would you design a data lake solution in Azure using services like Azure Data Lake Storage Gen2 and Azure Data Factory?
87. Describe your experience with implementing and managing Azure Cosmos DB, including data modeling and query optimization.
88. How do you approach troubleshooting network connectivity issues in Azure, including virtual networks, subnets, and network security groups?
89. Explain your understanding of Azure Policy and how it can be used to enforce compliance and governance in Azure environments.
90. How would you design a solution for processing large volumes of streaming data in Azure using services like Azure Stream Analytics or Azure Databricks?
91. Describe your experience with implementing and managing Azure Virtual Desktop (AVD) environments.
92. How do you approach designing for high availability and disaster recovery in the context of Azure Storage services (Blob, Queue, Table, File)?
93. Explain your experience with integrating Azure services with other cloud providers or on-premises systems.
94. How would you design a secure and compliant data warehouse solution in Azure using services like Azure Synapse Analytics?
95. Describe your experience with using Azure Machine Learning for building and deploying machine learning models.
96. How would you approach securing Azure resources using Azure Security Center and Azure Sentinel?
97. Explain your understanding of Azure Blueprints and how they can be used to deploy and manage consistent Azure environments.
98. How do you stay up-to-date with the latest Azure services, features, and best practices?