Here’re Top 25 Azure DevOps Interview Questions

One can improve his chances of landing up with a high-paying job if you prepare for interview questions. Most of the time, candidates lack the confidence to appear in an interview. So, mock practice questions on Azure DevOps can help you practice constantly with difficult questions, thereby leading to positive results.

The following discussion would present an outline of Azure DevOps interview questions. Aspiring DevOps professionals could leverage the information in this discussion to improve their chances of impressing interviewers.

1. What is DevOps?

The first question that you would come across in an Azure DevOps interview would deal with the root element. DevOps is a culture or paradigm shift that implies the collaboration between development and operations teams in an organization. The union of process, product, and people help DevOps in providing continuous integration and continuous delivery of value to end-users. Basically, DevOps increases the speed of processes for the delivery of applications and software services at higher velocity. The continuous delivery aspect in DevOps also ensures the minimization of the risk factor through collecting stakeholder and end-user feedback.

2. What are the reasons to use DevOps?

Candidates could easily find this entry as one of the common Azure DevOps interview questions. DevOps helps enterprises deliver smaller features to customers with higher efficiency and speed. The functionalities of DevOps clearly indicate its potential for providing seamless software delivery. Examples of success with DevOps include the names of Google and Amazon. These tech giants could achieve thousands of code deployments every day alongside delivering the benefits of security, stability, and reliability.

3. What advantages does DevOps provide?

The response to this answer should focus on two distinct aspects. The benefits of DevOps are evident in the form of technical and business benefits. The technical benefits include continuous software delivery, faster problem solving, and limited complexity of problems. The business benefits of DevOps include faster delivery of features and additional time for adding value to the end product. In addition, the business benefits of DevOps are also evident in the improvement of stability in operating environments.

4. Present one example of the use of DevOps in real life?

Various industries are using DevOps, thereby leading to a vast number of use cases that can serve as responses here. However, here is an example of Etsy, a peer-to-peer e-commerce website focusing on handmade or vintage products and supplies. Etsy had to face issues with slow and stressful site updates that led to frequent downtimes.

As a result, millions of sellers on Etsy’s marketplace lost sales to their competition. Etsy took a step away from the traditional waterfall model towards DevOps. Now, it employs a completely automated deployment pipeline along with proven continuous delivery practices leading to over 50 deployments daily. The best thing about Etsy’s use case is that it does not experience frequent disruptions with deployment after adopting DevOps.

Preparing for Microsoft Azure DevOps Solutions (AZ-400) certification exam? Follow [Microsoft Azure DevOps Solutions (AZ-400) certification preparation guide](https://www.whizlabs.com/blog/az-400-exam-preparation/) and pass the exam in the first attempt!

5. What are the major areas of DevOps tools?

Candidates could face this simple question, among other common Azure DevOps interview questions. The answer implies that automation plays a major role in the implementation of DevOps. Therefore, [DevOps tools](https://www.whizlabs.com/blog/top-devops-tools/" \t "_blank) are highly dominant in the areas of planning, code management, building and testing, and release management. In addition, DevOps tools also have functionalities in deployment and monitoring tasks in the DevOps ecosystem.

6. What are the popular DevOps tools for continuous integration and continuous deployment?

The notable DevOps tools for continuous integration include Jenkins, GitLab CI, TeamCity, Bamboo, Codeship, CircleCI, and Travis CI. The popular DevOps tools for continuous deployment include Azure Pipelines for Deployment, Jenkins, Bamboo, DeployBot, Shippable, ElectricFlow, and TeamCity.

7. What is continuous testing and the ideal DevOps tools for the same?

Candidates could expect to face this entry in frequently-asked Azure DevOps interview questions. First of all, you need to understand that DevOps is not about tools or process improvements. DevOps focuses on people, automation, and culture changes. Therefore, automated testing through writing scripts to execute the testing process automatically enables frequent releases. Many opensource tools for test automation can help in achieving the DevOps objective of continuous testing. Some of the notable DevOps tools for continuous testing are Selenium, JMeter, AntUnit, JUnit, SoapUI, and Cucumber.

8. What is Azure DevOps?

Azure DevOps is the new name for Microsoft Visual Studio Team Services (VSTS). It is known as a promising application lifecycle management tool. Azure DevOps helps in planning a project with the help of Agile tools and templates. The other functionalities of Azure DevOps include the management and running of test plans and version control of source code alongside the management of branches. In addition, Azure DevOps also helps in the deployment of a solution across different platforms by leveraging Azure Pipelines. Azure DevOps facilitates continuous integration and continuous deployment for faster and effective deployment.

9. What is the difference between Azure DevOps Services and Azure DevOps Server?

Candidates would generally face this entry as one of the tricky Azure DevOps interview questions. Azure DevOps Services is the cloud service of Microsoft Azure with a highly scalable, reliable, and globally available hosted service. On the other hand, DevOps Server is an on-premises offering, built on a SQL Server back end.

Enterprises choose the on-premises option when they need their day within their network. Another scenario for choosing on-premises involves the need for accessing SQL Server reporting services integrating effectively with Azure DevOps data and tools. Both Azure DevOps Services and Azure DevOps Server offer similar basic services, albeit with certain added benefits of the former. Here are the additional advantages of Azure DevOps Services.

* Simpler server management.
* Better connectivity with remote sites.
* Faster access to new and productive features.
* Transition in focus from capital expenditures on servers and infrastructure towards operational expenditures on subscriptions.

Must Read: [How to Become Microsoft Azure DevOps Engineer](https://www.whizlabs.com/blog/become-microosft-azure-devops-engineer/)?

10. Which factors should I consider for choosing one from Azure DevOps Services and Azure DevOps Server?

Candidates could find this entry as one of the advanced Azure DevOps interview questions. Most important of all, you can get follow-up questions regarding each factor in response to this question. The important factors to consider before making the choice of a platform between Azure DevOps Services and Azure DevOps Server are:

* Scope and scale data
* Authentication requirements
* Users and groups
* Management of user access
* Security and data protection precedents
* Process customization
* Reporting

11. What are the different DevOps solution architectures?

You can leverage multiple tools and technologies with Azure for the following DevOps scenarios to design solution architectures.

* CI/CD for Containers
* Java CI/CD using Jenkins and Azure Web Apps
* Container CI/CD using Jenkins and Kubernetes on Azure Kubernetes Service
* Immutable Infrastructure CI/CD using Jenkins and Terraform on Azure Virtual Architecture
* DevTest image factory
* CI/CD for Azure VMs
* CI/CD for Azure Web Apps

12. What are Azure boards?

Azure Boards is an Azure DevOps service that helps in the management of work in software projects. Azure Boards provide a diverse set of capabilities such as customizable dashboards, integrated reporting, and native support for Kanban and Scrum. The core features of Azure Boards include work items, boards, backlogs, sprints, dashboards, and queries.

13. What are the important reasons to use Azure Boards?

The applications of Azure Boards and its features are the foremost reasons to choose them. Here is an outline of the prominent reasons to use Azure Boards.

* Simple to start with an opportunity for scaling as per growth levels
* The facility of visually interactive tools
* Ease of customization
* In-built tools for social communication
* Flexible information capturing and ample cloud storage capacity
* Easy to find requirements and facility of notifications regarding changes
* Monitoring status and progress with in-built analytics and dashboards
* Integration with MS Office
* The benefit of extensions and extensibility
* Opportunity to start without a price

14. What is Azure Repos?

Candidates should prepare for basic yet tough Azure DevOps interview questions like this one. Azure Repos is a version control system that helps in managing code and the different versions throughout the development lifecycle. Azure Repos can help in tracking changes to the code by different teams. The detailed record of the history of changes can help in coordinating with the team and merge the changes at a later stage.

The interesting factor about Azure Repos is the facility of a centralized version control system and a distributed version control system. Git is the distributed version control system in this case. On the other hand, the Team Foundation Version Control (TFVC) is the centralized version control system.

15. What are containers in DevOps, and which container platforms does Azure DevOps support?

The container provides an easy approach for packaging software code, related configurations, packages, and dependencies in a single project. Candidates could find this entry in Azure DevOps interview questions generally. You can extend the response by stating that multiple containers could run on the same machine and share the operating system with other containers.

As a result, containers could help in faster, consistent, and reliable deployments. Azure DevOps provides container support for Docker and Asp.Net with containers. In addition, the Azure Kubernetes Services and Azure Service Fabric application with Docker support also provide container support on Azure.

According to the report by [Nigel Frank International](https://www.nigelfrank.com/microsoft-technology-for-business-salary-survey/azure-engineer-salary/), the average Azure DevOps Engineer salary is $145,000 per year in the USA which may range from $125,000 to $185,000 per year as per the knowledge and experience level of the candidate.

16. What are Azure pipelines?

This is one of the technical Azure DevOps interview questions for the consideration of candidates. Azure Pipeline is a service on the Azure cloud which you can use for automatically building and testing code project. In addition, it also works effectively with the majority of languages and project types, thereby presenting improvements in the availability of code project to other users.

17. What are the reasons to use CI and CD and Azure Pipelines?

Implementation of CI and CD pipelines is one of the best approaches for ensuring reliable and quality code. This is one of the important Azure DevOps interview questions that you should focus on. Azure Pipelines offer an easy, secure, and faster approach for automation of processes to build projects and ensuring their availability.

In addition, the use of Azure Pipelines for public projects is completely free. On the other hand, using private projects is also cost-effective as you get around 30 hours of pipeline jobs per month for free. In addition, you can also present the following reasons to use Azure pipelines for CI and CD in such Azure DevOps interview questions.

* Support for any language or platform
* Deployment to various types of a target simultaneously
* Integration with Azure deployments
* Building on Windows, Mac, and Linux machines
* Integration with GitHub
* Capability for working with open-source projects

18. What are Azure Test Plans?

Candidates should prepare for Azure DevOps interview questions like this one. Azure Test Plans are a service with Azure DevOps that provides a browser-based test management solution. The test plans also provide crucial capabilities in exploratory testing, user acceptance testing, and planned manual testing. Azure Test Plans also have a browser extension to provide exploratory testing alongside a collection of feedback from stakeholders.

Manual and exploratory testing are important techniques for the evaluation of a product or service quality. In addition, Azure Test Plans are also responsible for realizing the focus of DevOps on automated testing. Azure Test Plans helps in assimilating the contributions from developers, testers, product owners, user experience advocates, and managers to the quality of a project.

19. What is the role of Azure Artifacts?

Candidates could find such Azure DevOps interview questions related to components of Azure DevOps commonly in interviews. Azure Artifacts serves as an extension of Azure DevOps Services and Azure DevOps Server. The service is available pre-installed in Azure DevOps Server 2019, Team Foundation Server (TFS) 2017 and 2018 and Azure DevOps Services. Azure Artifacts bring the concepts of multiple feeds for the first time.

Multiple feeds can help in organization and controlling access to packages. Azure Artifacts help in the creation and sharing of Maven, NuGet, and npm package feeds from private and public sources with teams of varying sizes. Azure Artifacts provides the facility of adding completely integrated package management to your continuous integration/continuous delivery (CI/CD) pipelines in a single click.          [](https://www.whizlabs.com/microsoft-azure-certification-az-400/practice-tests/)

20. What should you do to make a NuGet package available to anonymous users outside your organization alongside minimizing the number of publication points?

The solution to this question is the creation of a new feed for the package. Packages hosted in Azure Artifacts find storage in a feed. Setting up permissions on the feed enables sharing packages with higher scalability according to the scenario’s requirements. The multiple feeds on Azure Artifacts help in controlling access to packages across four levels of access. The four levels of access are owners, readers, contributors, and collaborators.

21. What recommendations would you provide an application for enabling communication between members of the development team working in different locations around the world using Azure DevOps?

The foremost criteria for such an application would be the facility of isolation of members of different project teams into different communication channels. In addition, it should also maintain a history of communication in the concerned channels. Furthermore, the application should integrate effectively with Azure DevOps and provide the ability to add external contractors and suppliers to projects. Microsoft Teams offers the right capabilities to address these needs.

Classification of different teams allows users to create different channels for organizing communications according to the topic. Every channel could include a few users or even thousands of users. The guest access feature in Microsoft Teams provides the capability for inviting external people to join internal channels for file sharing, messaging, and meetings. The feature helps in providing business-to-business project management. Microsoft Teams also integrates directly with Azure DevOps.

22. Which feature would you use for developing a multi-tier application using Azure App Service web apps as the front end and Azure SQL database as the back end? The application should send the Azure DevOps team an email message in the event of the front end’s failure to return status code “200.

Application Map in Azure Application Insights is the recommended option in this case as it helps in the identification of performance bottlenecks. In addition, it also helps in identifying failure hotspots in different components of the multi-tier applications. Every node on the map provides a representation of an application component and related dependencies. In addition, it also provides status for health KPI and alerts. If you are an [Azure data engineer](https://www.whizlabs.com/blog/how-to-become-azure-data-engineer/), then also you can come across this type of question in the interview.

23. What solution would you recommend to improve the quality of code upon discovering many unused variables and empty catch blocks?

The solution is to select “Run PMD” in a Maven build task. PMD is a source code analyzer and identifies common programming errors such as unused variables, unnecessary object creation, and empty code blocks. An Apache Maven PMD Plugin helps in automatically running the PMD code analysis tool on a project’s source code. The site report provides detailed results about errors in the code.

24. What are the necessary components for integrating Azure DevOps and Bitbucket?

The solution to this question refers to a self-hosted agent and an external Git service connection. GitLab CI/CD is compatible with GitHub and Git server like Bitbucket. Rather than shifting an entire project to GitLab, it is possible to connect external repository to obtain the benefits of GitLab CI/CD.

25. What are Azure DevOps Projects?

Azure DevOps Projects are an effective option for obtaining a simplified experience for bringing existing code and Git repository for creating CI and CD pipeline to Azure. The use of Azure DevOps Projects is also evident if you select one of the sample applications.

You can also join [Whizlabs Forum](https://www.whizlabs.com/forums" \t "_blank) to submit and discuss your query with the certified Azure professionals.

Bottom Line

The above-mentioned discussion on Azure DevOps interview questions clearly shows that there is a lot of ground to cover! You can also get your hands on the [Azure certification](https://www.whizlabs.com/blog/azure-certifications-path/) for DevOps professionals. Azure DevOps Engineer certification is a high in-demand [DevOps certification](https://www.whizlabs.com/blog/best-devops-certifications/" \t "_blank). Candidates aspiring for roles as Azure DevOps professionals would have to undertake considerable training. You have to select a specific training course that provides the assurance of quality learning resources. Whizlabs provides online training courses and practice tests for [Microsoft Azure DevOps Solutions (AZ-400) certification exam](https://www.whizlabs.com/microsoft-azure-certification-az-400/).

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