By OnlineInterviewQuestions.com

DevOps Interview Questions

What is DevOps?

DevOps is a one-stop solution for all software engineering. From creating the software to implementing it in real-time, DevOps does all. This creates an infinite demand for excellent **DevOps developers** in the market. Since the platform is quite fast and effective, it is attracting the attention of many organizations that are looking to develop software solutions for their own business. Thus, here are a few **DevOps interview questions** that can help you crack an interview in your dream organization and grow your career.

For reliable building, testing, and releasing software faster and more reliably **DevOps** brings in a set of practices with facilitating the processes between the software development and the IT team. DevOps ensures that every software has the minimum systems development life cycle and sees to the fact that the software is of high quality. The core activities of DevOps can be enlisted as follows-

- Processes
- Requirements
- Design
- Engineering
- Construction
- Testing
- Debugging
- Deployment
- Maintenance
- DevOps is not only an isolated collection of processes but it also extends its scope to other approaches like Agile. DevOps and Agile are complementary to each other.

Finally, practice here the top **20+ Interview Questions on DevOps**, that are mostly asked during Job Interviews.

Q1. What is DevOps ?

DevOps is the term derived from Development and Operations. It is used in software engineering culture. It helps to perform the software operations and software developments. It provides a step-by-step process of software development. DevOps gives the clear process of software creation, testing, implementation and much more. It enhances the development frequency, makes short development cycle, and other for business activities.

Q2. What are the advantages of DevOps ?

There are various advantages that are offered by DevOps platform. The people gain many advantages with it. It reduces the risk of the problem and provides the possible solution in a simple way. It is more stable in the operating environments. It produces standard software delivery and adds value to the business.

Q3. What are the anti-patterns of DevOps ?

The pattern is the common practice followed by the organization. When others commonly adopt a pattern, it does not work for your business if you blindly follow it. Thus, it is necessary to look for anti-pattern. There are plenty of myths that are revolving around the DevOps and therefore search well before you are going to do anything.

Q4. What are the advantages of DevOps with respect to Technical and Business perspective ?

DevOps offer a lot of the technical benefits such as:
- Reduce the manpower
- Reduces the complexity of the technical issues
- Resolve the technical problems quickly

DevOps not only offer the technical benefits but also provide business benefits such as:

- Stable environments for operating
- Optimum the delivering rate its features
- Enable speedier feature time to the market
- Extra time grabbled to the Add values.

Q5. What are the major CI tools ?

The Continuous integration is one of the most important parts of the agile software development. Here are some of the popular tools for Continuous Integration, which helps you to complete the task quickly such as:
- Team City
- GitLab CI
- Buildbot
- NET
- Jenkins
- Bamboo
- Go CD
- CircleCI

Q6. What is the role of AWS in DevOps ?

If this question is asked in an interview, you have to explain the point that these are cloud-based service provided by Amazon. AWS determine scalability via infinite computing storage and power. It is a great option that boosts enterprises of IT to create and supply products convenient ways of a cloud application. You can also discuss some cloud platforms.

Q7. How is Chef used as a CM tool ?

The chef is regarded as the preferred CM tools. The chef platform is very helpful for the people to minimize the

delay of the automation process. It is incorporated into the cloud platform that keeps up the different library for the new system. The chef server plays a major role in organizing several policies.

Q8. How is DevOps different from Agile/SDLC ?

Agile is the set of principles and values about how to develop software. If you have some ideas and wish to work on, then make use of agile methodology. Alternatively, DevOps is only responsible for development and deployment of the software in the reliable and safe manner. Refer the blog "Evolution of DevOps" to know more details.

Q9. What is the most important thing DevOps helps us achieve ?

DevOps is the combination of the tools, social strategies that help to expand the company to provide the services and application at high speed. It is the important thing that helps you achieve to get changes into the production. It helps to good working relationships and communication between the teams. Both the Dev. and Ops team deliver the high- quality software that provides the higher customer satisfaction.

Q10. Explain with a use case where DevOps can be used in industry/ real-life

Lots of industries are operating DevOps software at present. Consider the example given below:
Etsy is an e-commerce website, which offers peer-to-peer service. It is focused on the vintage products and manufactured items. The DevOps developers can create a complete development site within four hours thereby offering good results.

Q11. What are some of the DevOps best practices ?

When it comes to using the DevOps, the people mainly consider the best practices involved in it. It manages the practices like shorten feedback loops, cultural transformation, go faster, experiment and learn and much more. On the other hand, it generates the customer and business value repeatedly.

Q12. Define a typical DevOps Work Flow ?

DevOps though a very popular platform has a very typical flow:
- Developers develop the source code & Version Control System tools such as Git manages it
- Developers send the code to Git repository
- Through Git plugin, Jenkins pulls the code from repository & develop it using tools.
- Configuration management tools deploy testing and Jenkins release the code
- Later, Jenkins sends the code for deployment to the production service where it is monitored continuously
- Docker is utilized as the containerization platform to offer consistent computing environment via SDLC

Q13. What are the major Benefits of Continuous Integration ?

The continuous Integration is one of the development processes that need some testing to build the process success. Here are some of the continuous Integration benefits:

- Team communication
- Improve the Your Code Coverage
- Risk mitigation
- Deploy the code to the production
- Reduce the review time of code
- Develop the stuff now and faster
- Develop the repeatable processes
- Reduced overhead
- Does not ship cracked code

Q14. Define ALM (Application Life Cycle Management) ?

ALM refers to Application Life Cycle Management, which used for design, testing, and development of the software application. It covers full lifecycle management in the software development. Developers get perfect support on the process at any stage of development easily, which also offer unique conception. With few processes, experts undergo the lifecycle management.

Q15. What are the virtualization Tools in DevOps ?

The users can utilize different kinds of virtualization tools in DevOps. The people follow the important measures while using the virtualization tools. You can learn the complete details about the virtualization tools. Some of the common virtualization tools are Ans. Nagios, Monit, ELK, Jenkins, Docker, Ansible, consul.io etc.

Q16. What all the major Containerization Tools in DevOps ?

There are several containerization tools in DevOps. Here are Some of the many important tools mentioned which a developer can use:
- Chef: It is used for configuration management purpose
- Icinga: It is specifically used for monitoring purpose.
- Docker: This particular tool is used for container management
- GitHub: A well-known tool for source control management
- Elastic search: Another interesting tool for log analytics and much more

Q17. What are the major Configuration Management Tools in DevOps ?

Configuration Management includes the versions, update, and others, which have applied to the package of software, network address, and location of the hardware. The Software Configuration Management provides some benefits such as reduction in the redundant work, tracking the defects, and avoiding the configuration problems. Some of the major configuration management tools are:
- Chef
- Rudder
- Ansible
- Puppet
- CFEngine
- Salt

- Juju

Q18. What all the major Provisioning Tools in DevOps ?

DevOps is well-known software that used to construct any application without any issues. It has provisioning tools to complete the development processes like Chef, puppet, saltstack, Jenkins, Vagrant, Ansible, and Juju. These are the tools, which operate on software development. Tools give a unique approach to the developers on software creation.

Q19. Explain the Difference between Continuous Integration, delivery, and deployment ?

There is a considerable amount of difference between Continuous Integration (CI), Continuous Delivery (CD) and Continuous Deployment (CD).

- **Continuous Integration** is very useful for the developers who wish to identify the bugs and resolve it instantly. With it, the developers come together to the repository.
- **Continuous Delivery** is suitable for the deployment and release processes. It is a right concern for the safe code releases at the possible time.
- **Continuous Deployment** is known for high-end automation where the deployment occurs automatically if the code has a major change.

Q20. What role does QA play in DevOps?

Developers and testers both play a significant role in DevOps. When it comes to their individual responsibilities and job role in DevOps, it seems that the difference is too thin. If you want an application or for that matter a software running, both development and operations are important which comprises QA. Every business that is aiming for success makes sure that each if their software and application have quality and stability. Developers more often act like testers as they intend to check their own codes to look for any possible error. A tester is completely responsible for testing an application/software by using testing tools or even methods. If an organization is not backed up by a team of strong QA who can test the software/application continuously, then they might get troubled in delivering their projects instantly.
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