

ASSIGNMENT

Ques 1 What is DevOps a major requirement in Today's Scenario?

Ans 1 → Improve the speed and stability of software Development and Deployment :-

It is found that top-performing DevOps organisation do far better on software. Due to development/deployment speed and stability at much faster rate which includes faster software releases, optimized process, enhanced trust and ability to resolve critical issues quickly better serves to customers,

2 They are Agile :- Agile refers to the faster delivery of the product. It guarantees the problem are fixing at every stage or phases rather than finding problem after the product is launched. More products put in the market with utmost quality and security.

3 Reduced Overall Costs - Implementing DevOps methodology reduces overall operational costs and IT staff requirements due to better productivity from staff and optimal resource utilisation.

Ques Explain the DevOps tool in detail.

Ans → DevOps Tool is an application that helps automate the software development process. It mainly focuses on the communication and collaboration between product management, software development, and operations profession.

1 Version Control Tool: Git (bitlab, GitHub, BitBucket)

⇒ Git is a distributed version control system for tracking of changes in computer files.

2 Build Tool: Kubernetes, Docker, Maven

⇒ These are important tools in DevOps for building projects. It eases the build and monitoring process through automation and ~~maintain~~ maintains a uniform build process. Kubernetes and Docker are container platform.

3 CI/CD (Continuous Integration / Continuous Deployment)

Most popular software for CI/CD is Jenkins.

Jenkins is an open-source Java based automated CI server that supported by multiple OS. They can also be deployed on cloud based platform.

4 CM (Configuration Management Tool): Ansible

It refers to maintenance and control of the component of large complex system. Ansible is an open-source CM DevOps tool that is used for deployment, automation and maintenance. Other example includes Puppet and Chef.