

Assignment (1A)- Introduction to DevOps.

1) What is devops? What are the roles of devops engineer in an organization?

Ans – a) Devops is a culture which brings two working teams together Development and Operations. Teams like Developer, Operations, Monitoring, Testing, Feedback teams work together with all the required tools.

b) Roles- Main coordinator between Development and Operation team.

Motive is making work faster, smoother, and reliable.

Collaboration– Work with developers, testers, and upper management.

Automation– Set up tools like Jenkins, Docker, Terraform, Kubernetes to automate builds, tests, and deployments.

CI/CD Management– Maintain continuous integration and continuous delivery pipelines. (Jenkins and Kubernetes)

Infrastructure as Code (IaC)– Use tools like Terraform to create and manage servers and cloud resources with code.

Monitoring & Logging– Making sure that applications run well by tracking performance and fixing issues quickly.

Scalability– Use tools like Kubernetes to scale dockers up or down as per traffic on site/app.

2) Differentiate between traditional development and Devops.

Ans – a) Traditional Development aka Agile

- Mainly focuses on software development. It relies on manual process. It involves business and developers teams. It may have slower deployment.

b) Devops

- It focuses on both Development and Deployment. Uses automation for speed and efficiency. Brings development and Operations together. continuous integration and continuous Deployment is done for faster services.