

Assignment-2

KaithKay Kapil
Sec-D

Roll no - 51
1918412

① Why is DevOps a major requirement in Today's scenario?

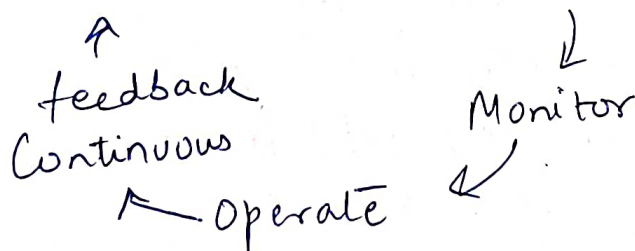
Ans DevOps is an organizational approach that enables faster development of applications and easier maintenance of existing deployments. By enabling organizations to create stronger bond between Dev, Ops and other stakeholders.

- Maximizes Efficiency with Automation.
- Optimizes the Entire Business.
- Improve speed and stability of software development and deployment.
- Lets you to focus on what matter most.
- Cloud Optimization.
- Automation will play major role.

② Explain all the DevOps tools in Detail.

DevOps Tools address the key phases of the DevOps lifecycle. They empower DevOps practices by helping to improve collaboration, reduce context-switching, introduce automation, and enable observability and monitoring.

cycle → Plan → Build → CI/CD



Plan:- Jira Software, Confluence, slack.

Tools

Build:- Kubernetes, Docker.

~~while~~ ~~supper~~ Developers use open source tools like Kubernetes and Docker to provision individual development environments.

Infrastructure as code:-

It means re-provisioning is faster than repairing - and more consistent and reproducible. It also means you can easily spin up variations of your development environment with similar configuration as production. Provisioning code can be applied and reapplied to put a server into a known baseline. It can be stored in version control.

Bitbucket

Gitlab

Gitlab

CI/CD:

Jenkins, AWS, Bitbucket, circleci, snyk, sonarsource

CI: It is the practice of checking in code to a shared repository several times a day, and testing it each time.

mabl

Sourcelabs

XRay

zephyr

Test: Jira Software.

Deployment dashboards:-

Bitbucket

AWS Codepipeline