

Experiment No. 1

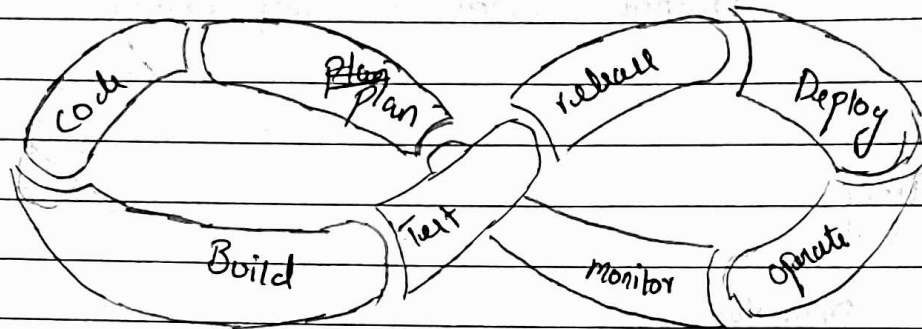
Aim : To understand Devops, principles, practices & Devops roles & responsibilities.

Theory :

Definition

- Devops is the combination of 2 words Development & other operations.
- Devops helps to increase organization speed to deliver application & services.
- Devops can also be defined as a sequence of development & IT operations with better communication & collaboration.
- Devops has become one of the most valuable business disciplines for enterprises or organisations.
- With help of Devops, quality & speed of the application delivery has improved to a great extent.

Architecture



① Build



without DevOps the cost of the consumption of the resource was ~~not~~ evaluated based on the pre-defined individual way, with fixed hardware allocation.

② Code



many good practices such as Git enable the code to be used, which ensure writing the code for business helps to track changes.

③ Test

Σ

The application will be ready for production after testing. In the case of manual testing, it consumes more time in testing & moving code to the output.

④ Plan

Σ

Develops the agile methodology to plan the development.

⑤ Monitor

Σ

Continuous monitoring is used to identify any risk for failure. Also, it helps in tracking the system accurately so that the health of the app can be checked.

⑥ Deploy

Σ

Many systems can support the schedule for automated deployment. The cloud management platform enables users to perform updates & view the optimization metrics.

⑦ Operate



DevOps ~~Replaces~~ changes the traditional approach of develop & testing separately. The teams operate in a collaborative way where both the teams actively participate throughout the service lifecycle.

⑧ Release



Deployment to an environment can be done by an automation. But when the deployment is made to the production environment, it is done by manual triggering.

Principles

- i) Collaboration
- ii) Data based Decision making.
- iii) Customer centric decision making.
- iv) Constant Improvement
- v) Responsibility throughout the lifecycle
- vi) Automation
- vii) Failure as learning opportunity.

Advantages

- i) Devops is an excellent approach for quick development & deployment of applications.
- ii) It responds faster to the market changes to improve business growth.
- iii) It improves customer satisfaction & experience.
- iv) Devops means collective responsibility which leads to better team engagement & productivity.

Disadvantages

- i) Devops professional or expert developers are less available.
- ii) Developing with devops is so expensive.
- iii) Adopting new Devops Technology into the Production is hard to manage in a short time.
- iv) Lack of devops knowledge can be a problem in the continuous integration of automation projects.

Conclusion

Here, we have known what drops is
its advantages & disadvantages.