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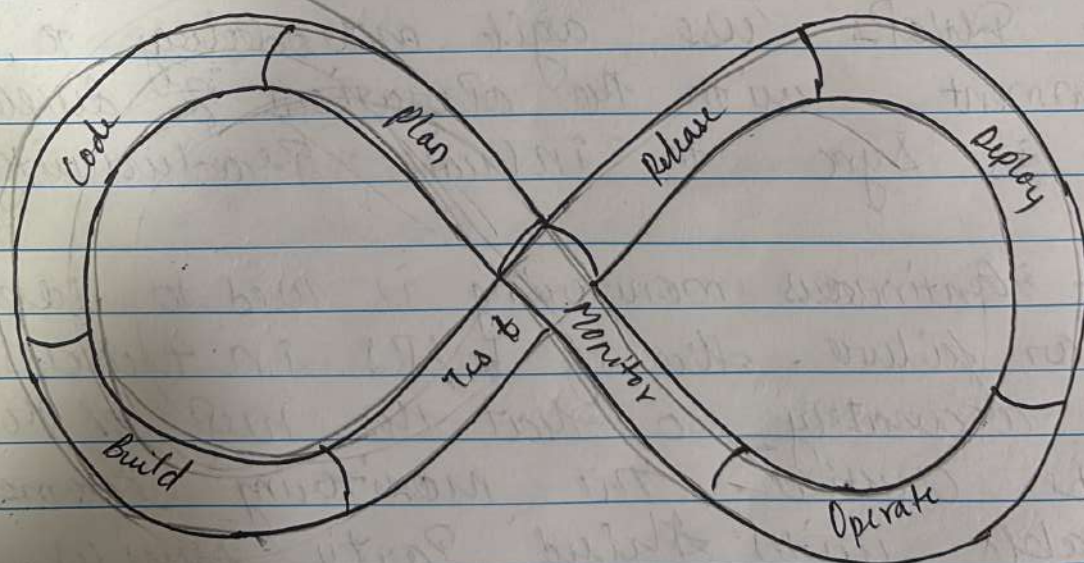
Experiment No - 1

Aim - To understand DevOps Principles, Practices DevOps roles & responsibilities

Theory
Definition

- DevOps is the combination of two words, one & other is Operations. It is a culture to Pe the development & operation
- DevOps helps to increase organisation speed to application & services. It allows to organis to serve their customers better & compli
- DevOps can also be defined as a sequence development & IT operations with better con
- DevOps has become one of the most valu business disciplines for enterprise or orga with the help of DevOps quality & the application delivery has improved to

1) Build - without devops, the cost of the consumption of the resources was evaluated based on the pre-defin individual usage with fixed hardware allocations & the devops the usage of cloud, sharing of resources comes into the picture & the build is dependent upon the user's need.

2) Code - many good practices such as Git enable the code to be used which ensured writing the code for business helps to track changes. getting notified about the reason behind the difference is actual & the expected output if neassary original code.

3) Test - The application will be ready for production after testing. In the case of manual testing, it consumes more time in testing & moving the code to the output. The testing can be automated which decreass the time for testing so time to deploy

> Plan - DevOps, use agile methodology to plan the environment. with the operations & development team is Sync to inbreate productivity.

> monitor - Continuous monitoring is used to identify any risk or failure. Also if helps in tracking the system accurately so that the need of the application can be checked. The monitoring becomes mor comfortable with third party services.

6) Diplay - Many systems can support the schedule for automated deployment. The cloud management platform enabled users to capture accurate insights & view by the deployment of dash boards.

7) Operate - DevOps changes the traditional approach of developing & testing seperately. The teams operate in collaborative way where both the teams actively participate throughout the service lifecycle. The operation team came up with a monitoring plan serves the IT & business.

8) Release - Deployment to an environment can be done by automation But when the deployment is made to the Production environment, many processes involved in release management. Commonly used to deployment in the Production environment to impact on customers

Principles
- collaboration
- constant improvement
- Automation
- Data - Based Decision making
- failure as a learning opportunity
- responsibility throught the lifecycle.

Advantages

- It res Pons faster to the market changes to improve business yet
- It improves customer experience & satisfaction
- DevOPS is an excellent approach for quick development & deployment of application
- DevOPS simplifies collaboration & Places all tools in the cloud for customer to access
- DevOPS means collective responsibility which leads to better team engagement & Productility
- DevOPS escalates business Profit by decreasing software delivery time & transpartation cost

Disadvantages

- DevOPS Profissional as expert's developer are less available
- Developing with DevOPS is so expensive
- Adopting new DevOPS technology into the industries is hard to mango in short time
- lack of devers knowledge can be a Problem in the continuous integration of Projects

Conclusion

Heng, we have known what devops is and it advantages & disadvantages.