Vedika Vaswani
T23 - 119

THADOMAL SHAHANI
TSEC
ENGINEERING COLLEGE

SEPM : Experiment 1

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

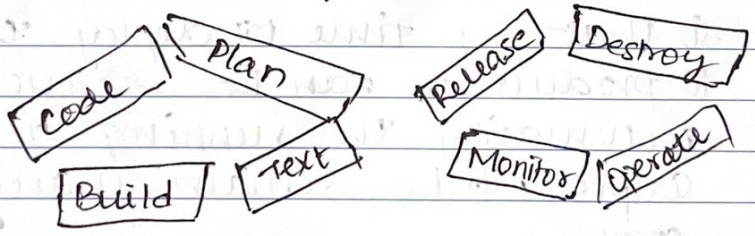
Theory:-

definition

- DevOps is the combination of 2 words: one is development and other is Operations process collectively.
- DevOps helps to increase organisation to serve their customers better & compete more strongly in the market.
- DevOps can be defined as sequence of development & IT operations with better & communication & collaboration.
- DevOps has become one of the most valuable business disciplines for enterprises or organisations.

Architecture

DevOps Architecture



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1) Build - Without DevOps the cost of the consumption of the resources were evaluated. based on the pre-defined unindividual user of cloud sharing of resources into the picture.

2) Code - Many good practices such as bit enable the code to be used which ensure writing code for business helps to trade changes getting notified at the reason behind the difference in the actual & expected output.

3) Test - The application - will be ready for production after testing. In case of manual testing moving the code to the output - The test can be automated, which decreases the time for testing so that the time to deploy the code to production can be reduced an automating the running of the scripts will be remain many manual steps.

4) Plan - DevOps uses Agile methodology to plan the development with operation & development in sync, it helps in organising the work to plan

according to increase productivity.

5) Monitor - continuous monitoring is used to identify any risk of failure. Also it helps in tracking the system accurately so that the health of the application can be checked.

6) Deploy - Many systems can support the scheduler for automated deployment. The cloud management platform enables users to capture accurate insights.

7) Operate - DevOps changes the traditional approach of developing & testing seperately. 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 automative But when the deployment is made to the production environment its done by manual triggering.

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Principles :-

- Collaboration
- Data Based decision making
- Customer centre Decision Making
- Constant Improvement
- Responsibility throughout lifecycle
- Automation
- Failure is a learning Opportunity

Advantages :-

- DevOps is an excellent approach for the quick development & deployment of application.
- It responds faster to the market changs to improve business growth.
- DevOps escalates business profit by decreasing software deliveries time & transportation costs.
- DevOps clearer the descriptive process which given clarity can produce development &

deliveries.

- It improves customer experience & satisfaction
- DevOps simplifies collaboration & places all tools in the cloud for customer to access.
- DevOps means collective responsibility which leads to better team engagement & productivity.

Disadvantages :-

- DevOps professional or expert in developers are less available.
- Developing with devops is so expensive.
- Adding new DevOps technology into industries is hard to manage in short time.
- Lack of DevOps knowledge can be problematic in the continious integration & automation projects.
- Conclusion :- Hence, we have known about DevOps & its disadvantages.