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T23-120

SEPM Experiment No 1.

**Aim:** - To understand DevOps principle, practice, DevOps roles and responsibility.

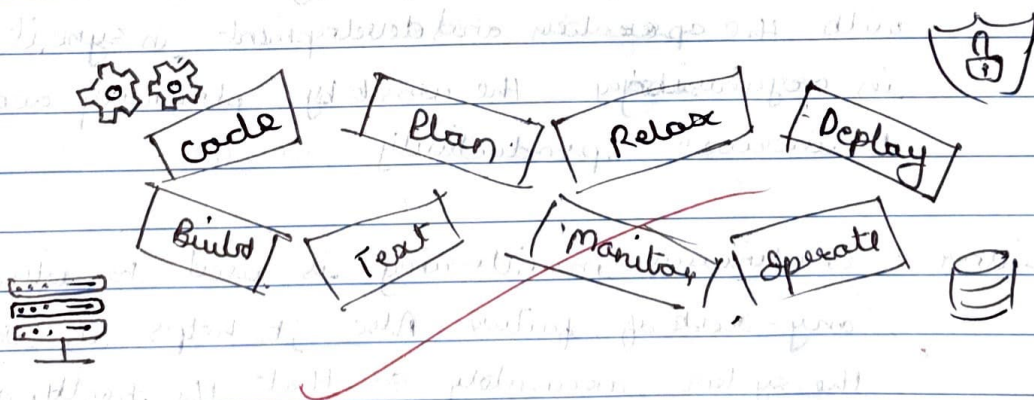
**Theory:**

**Definition:** • DevOps is the combination of two words, one is Development and other is operations process collectively.

- DevOps helps to increase organisations to ~~serve~~ serve their customer better and compete more strongly in the market.
- DevOps can be defined as sequence of development and IT operations with better communication and collaboration.
- DevOps has become one of the most valuable business disciplines for enterprise or organisations.

## Architecture

### DevOps Architecture





- 1] Build - Without DevOps the cost of the consumption of the resource were evaluated based on the pre-defined ~~individual~~ individual usage of cloud sharing of resources. ~~co~~ into the picture.
- 2] Code - Many good practice such a Git enable the code to be used which ensure writing the code for business helps to track changes, getting modified at the reason behind the difference in the actual and expected output.
- 3] Test - The application will be ready for production after testing. In the case of manual testing moving the code to the output. The test can be automated, which are the time for testing. So that the time to deploy the code to production can be reduced as automating running of the scripts will remain many manual steps.
- 4] Plan - DevOps use, Agile methodology to plan the development with the operation and development in sync it helps in ~~organising~~ the work by planning 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 schedules for automated deployment. The cloud management platform enables user to capture accurate insight.
- 7] **Operate** - DevOps changes the traditional approach of developing & testing separately. The teams operation is a collaborative way where both the teams actively participate throughout the service lifecycle.
- 8] **Release** - Deployment to an environment can be done by automation. But when the deployment is made to the production environment it is done by manual triggering.

### DevOps Principles

- Collaboration
- Data Based decision making.
- Customer Centric decision making.
- Constant Improvement
- Responsibility Throughout lifecycle.
- Automations
- Failure as a learning opportunity.

*reliable*