Day 1 - Introduction to DevOps

Day 1 :

What is **DevOps** ? → Code to PROD

Development & Operations

Development → Code (By Developers)

Operations → Build, Test, Security Analysis, Deployment and Managing the PROD

In Application Building → DevOps is CI/CD can be used for smooth process.

CI → Continuous Integration

   → Commit, Build, Automation Build, Reporting the Results

CD - Continuous Deployment / Continuous Delivery(manual interventions needed)

   → Deployment Pipeline, Automated Deployment, Testing, Release & Rollback, Monitoring

→ Uses Git Branching Strategy to implement it.

   Dev - for Developers, **Quality Assurance(QA)** - For Testers , **Pre Production (PPD)** , **Production(PROD)** , **Disaster Recovery(DR)** → to roll back when issues in PROD

How DevOps is benefits a Company?

- **Saving time** in bringing a product/software to market.
- **Early Bug detection** before release.(Using Security Tools) E.g.. Sonar Cube.
- **Increased Collaborations** with Teams(Development Team & Operations Team).
- Improved Code **Quality** and Product Quality.

- **Agility & Flexibility** → Can be adapted according to the Market and make changes.

Questions :

1) What is DevOps ? and What id CI/ CD ..?

→ DevOps is not a Tool. Its a way/ process of building and deploying any application to Production Server by running several tests and security analysis.

→ Multiple Developers working on same projects with different features to be pushed to same branch. We use CI to make it possible without causing any hinderance and having a smooth flow in the development process.

→ Basically process of Deploying application to different Environments. Its not simply deploying an application but also monitoring with different security tools and fixing the bugs. **CD is both Continuous Deployment(When everything is automated) and Continuous Delivery(When manual triggers are required).**

There are basically 5 environments :

- DEV

- QA

- PPD

- PROD

- DR