Udapeople App

Fundamentals and Benefits of CI/CD to Achieve, Build, and Deploy Automation for Cloud-Based Software Products

1. Reduce Cost

Implementing CI/CD in the project will help the company to reduce costs. This is evident in the following scenarios:

a. There will be less developer time on issues from new developer code. CI/CD will allow developers to become aware of any errors after adding new code.

b. By using automation, the infrastructure costs will be low. This is because any unused resource will be automatically cleaned up.

2. Avoid Cost

The company will avoid cost through the automation of CI/CD:

a. Most of errors are immediately caught using unit testing. This helps in eliminating bugs in production and reduce time used in testing.

b. CI/CD detects security vulnerabilities which can be quickly fixed and prevent costly security holes.

c. Automation of infrastructure means there is no room for human error and deployments are done in a faster rate. Less human error avoid costs to the company in terms of system downtime.

3. Increase Revenue

The company will realize an increased revenue because:

a. The product will be deployed faster making it available to the market. Also new features will be released quickly and thus generating income.

b. Manual checks slow down deployment taking a long time to market the product. Also this can allow competitors to beat us to the market share. CI/CD automation guarantees less time to market.

4. Protect Revenue

Automation gives confidence to customers allowing customer retention. This can be seen through:

a. New features taken to production will be automatically subjected to smoke tests to ensure system stability. Therefore, system downtime will be low.

b. A new unstable feature taken to production will be quickly taken down incase of a job failure. The last stable version will be running and the deployment step will be undone automatically and customers will not notice any failures.