# **CONTINUOUS INTEGRATION (CI)**

Continuous integration (CI) is the practice of automating the integration of code changes from multiple contributors into a single software project.

A continuous integration service automatically builds and runs unit tests on the new code changes to immediately surface any errors.

#### **CONTINUOUS DEPLOYMENT (CD)**

Continuous deployment is a strategy for software releases wherein any code commit that passes the automated testing phase is automatically released into the production environment, making changes that are visible to the software's users.

Continuous deployment does not require a staging area for code changes to be manually reviewed and verified because automated testing is integrated early in the development process and continues throughout all the phases of the release

### Benefits of CI/CD - CREATE REVENUE

- Faster Production deployment
- More frequent deployments
- Eliminate manual checks during Production deployments
- More time to innovate

### Benefits of CI/CD – PROTECT REVENUE

- Automated smoke tests
- Automated rollbacks
- Easier to replicate best practices
- Improved communication and collaboration
- Happier, more productive teams

## Benefits of CI/CD – CONTROL COSTS

- Automatic infrastructure deployments
- Catch unit test failures
- Faster problem remediation
- Detect security vulnerabilities

### Benefits of CI/CD – REDUCE COSTS

- Automated CI/CD let new members of the team get down to business right away without having to deal with an exhausting learning curve.
- With CI/CD pipeline properly automated, the process of the product deployment and release is more reliable and developers are not wasting hours on bug-fixing
- CI/CD can significantly reduce downtime which negatively influences revenue and company's credibility