

Why CI / CD

A better way to build and ship products to market.



- Continuous Integration (CI) : is the process of integrating code changes which made by developers and make some tests to make the artifact ready to by a good production.
- Its all about code and (Dev) workflow.

Some kinds of tests

- Unit Test: is a way of testing a unit - the smallest piece of code that can be logically isolated in a system In most programming languages, that is a function, a subroutine, a method or property.
- Smoke Test: means verifying the important features are working and there are no showstoppers in the build that is under testing.



- Continuous Deployment: is a strategy in software development where code changes to an application are released automatically into the production environment.
- Its all about (Ops) workflow.

Some kinds of CD jobs

- Deploy Infrastructure: includes all the prerequisites for the network function to be successfully deployed and configured
- Configuration management: is a process for maintaining computer systems, servers, and software in a desired, consistent state. It's a way to make sure that a system performs as it's expected to as changes are made over time.

➤ Benefits of CI/CD

Avoid Cost

- Catch Unit Test Failures: which avoid cost by eliminate bugs in production and reduce time in testing.
- Detect Security Vulnerabilities: which prevent embarrassing or costly security holes.

Reduce Cost

- Catch Compile Errors After Merge: Less developer time on issues from new developer code.
- Automate Infrastructure Cleanup: less human errors and faster deployments

Increase Revenue

- Faster and More Frequent Production Deployments: New Value-generating features released more quickly.
- Deploy to Production Without Manual Checks: less time to market.

Protect Revenue

- Automated Smoke Test: Reduced downtime from a deploy-related crash or major bug.
- Automated Rollback triggered by Job Failure: Quick undo to return production to working state