

# CI/CD

A more effective way to deliver apps to market

# 1. Continuous Integration (CI)

- Continuous Integration (CI) is the process of integrating work changes from multiple developer to create a single software project.
- The foundation of continuous integration is the assumption that programming teams who release small changes of code frequently provide dependable results that are simple to debug.
- The primary purpose of CI is to produce high quality deployable artifact
- CI phases: Compile, test and analysis

## 2. Continuous Deployment (CD)

- It's all about deployment the artifact in an automatical way
- Continuous Deployment (CD) aims to reduce the lead time for reliably releasing software at any time
- CD phases: deploy infrastructure, configure infrastructure, Promotion, and cleanup

# 3. Benefits Of CI/CD

## 1. Release faster, Make more money

A CI/CD pipeline's main purpose is to provide functioning software to consumers as frequently as possible. Also, the features could be released quickly to the market which maximizes customer approval.

## 2. Reduce risk

Finding and fixing bugs late in the development process is expensive and time-consuming. But CI/CD pipeline enables you to test and release code more frequently, enabling testers to find problems as soon as they arise and to solve them right away. In essence, you are real-time risk mitigation.

# Benefits Of CI/CD Cont..

## 3. Increase Revenue

CI/CD could increase revenue as projects will be delivered to the market faster, and minimize the downtime of resources which save money

## 4. Minimize Cost

Less human error, Faster deployments, and Fewer infrastructure costs from unused resources. some costs could be avoided such as bugs and less time for testing, As CI/CD converts it to an automatic process in less time

## 5. Quick Rollback Protect Revenue

If there is any problem it will return the production to working state which will catch error quickly reduce the downtime of the resources