

# CI/CD – In a Dynamic Market Space

Automated resource handling and management

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# Overview of Continuous Integration

The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making".

- Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact!

- Some common CI-related phases might include:

- Compile
  - Unit Test
  - Static Analysis
  - Dependency vulnerability testing
  - Store artifact

# Overview of Continuous Deployment

- This is a software engineering approach in which the value is delivered frequently through automated deployments.
- Everything related to deploying the artifact autonomously fits here. It's the process of "Moving" the artifact from the shelf to the spotlight without human intervention.
- Some common CD-related phases might include:
  - Creating and configuring infrastructure
  - Promoting to production
  - Smoke Testing (aka Verify)
  - Rollbacks in case of any failure

# Benefits of CI/CD in a Dynamic Market

The rationale of CI/CD is the famous saying: 'a penny saved is a penny earned', so here's a preview of the benefits of setting up a CI/CD pipeline:

- Automate Infrastructure Creation
- Faster and More Frequent Production Deployments
- Automated Smoke Tests
- Detect Security Vulnerabilities
- Risk Management
- Revenue Protection
- Cost Control
- Deploy to Production Without Manual Checks
- Revenue Generation

# Conclusion

In summary, CI/CD can provide significant benefits to our by improving software quality, reducing time to market, controlling costs, and managing risk. By implementing CI/CD, our business can improve their competitiveness, protect revenue, and increase profitability in the long term.