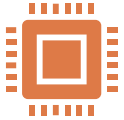
Fundamentals of CI/CD

What are the Business Benefits of CI/CD?

Bring Products to Market Faster

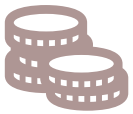


Allows Developers to Deliver Products Consumers Want Now.

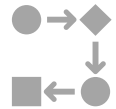
Boosts DevOps efficiency

CI/CD Improves App Quality

Supports Cloud-Based App Development



Reduce Costs and Boost Profits



Gain Real-Time Visibility of the Development Process

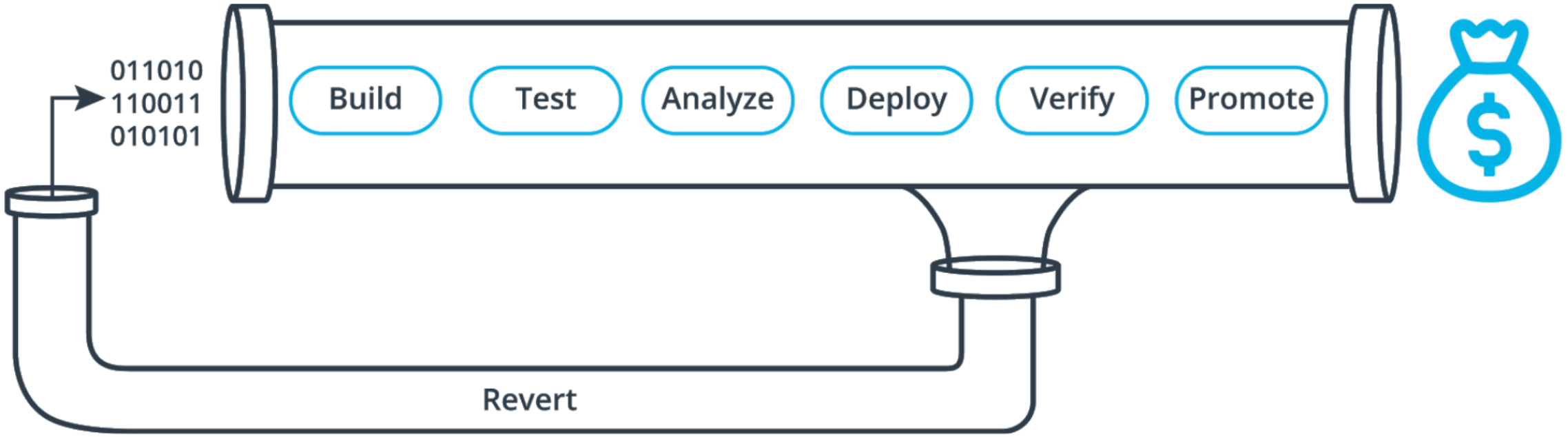
Continuous Integration

- *The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "**Making**". Some common CI-related phases might include:*
  - Compile
  - Unit Test
  - Static Analysis
  - Dependency vulnerability testing
  - Store artifact

Continuous Deployment

- *A software engineering approach in which the value is delivered frequently through automated deployments. Everything related to deploying the artifact fits here. Some common CD-related phases might include:*
  - Creating infrastructure
  - Provisioning servers
  - Copying files
  - Promoting to production
  - Smoke Testing (aka Verify)
  - Rollbacks

The CI/CD Pipeline



Benefits of CI/CD

- Smaller code changes
- Error Isolation
- Reduced deploy errors
- More reliable tests
- Faster release rate
- Increase accountability and transparency
- Smaller backlog
- Faster error resolution time
- Customer satisfaction
- Team satisfaction
- Easy maintenance and updates