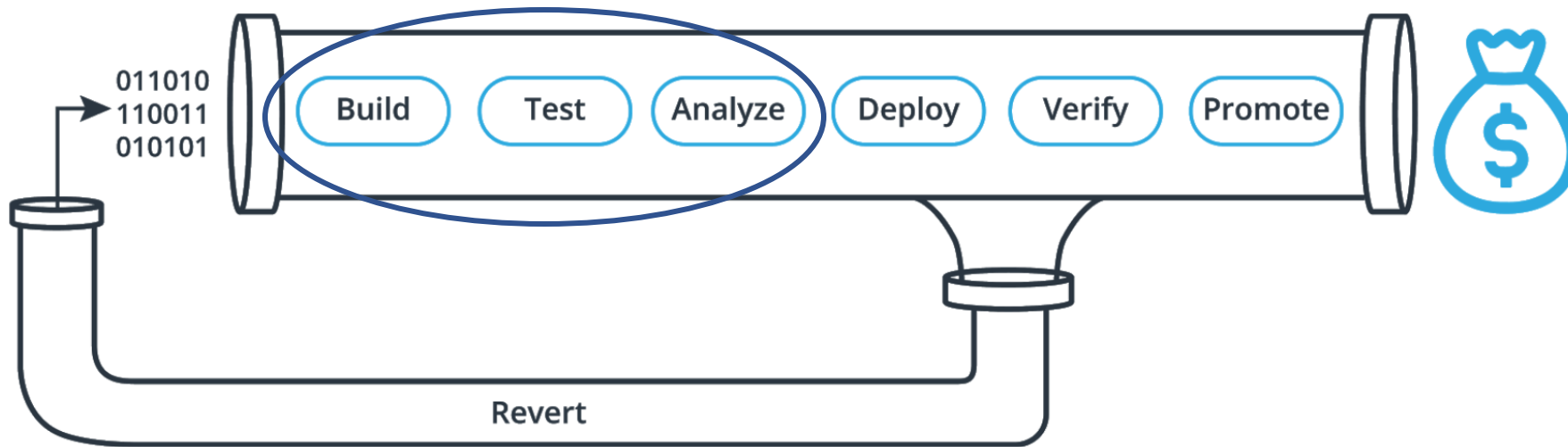# Business Benefits of CI/CD

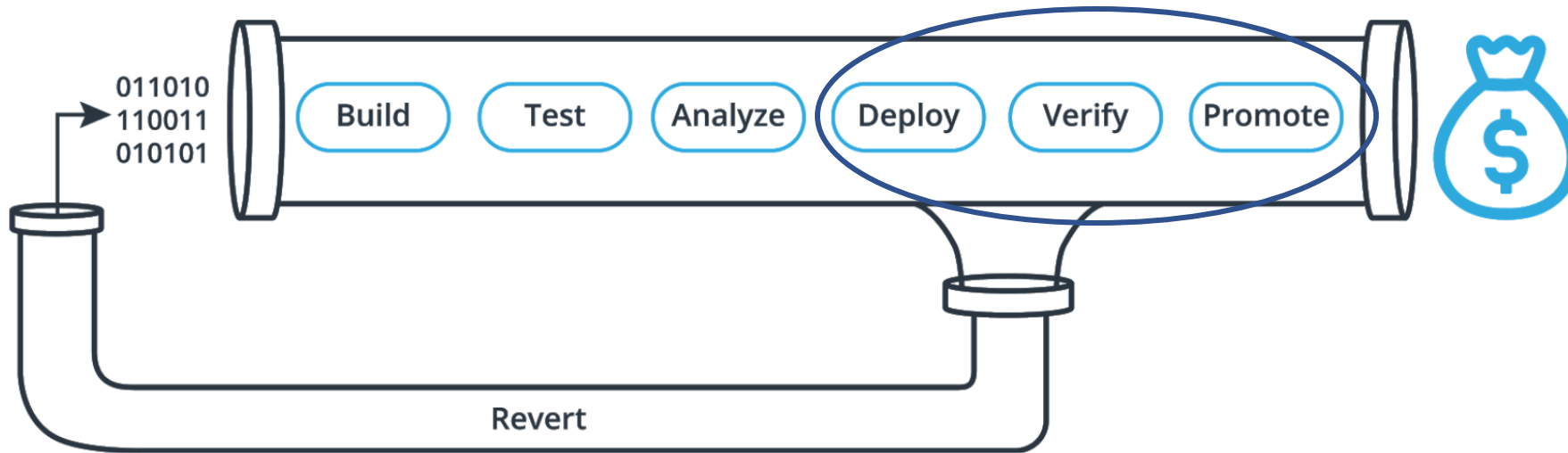**Ahmed ElNabawy**

Feb2023

Continuous Integration (CI)

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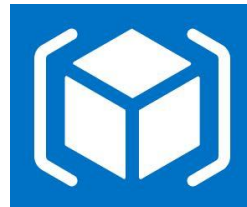
Continuous Deployment (CD)

A software engineering approach in which the value is delivered frequently through automated deployments.

Costs

Avoid Costs

- Less bugs in production and less time in testing due to catching unit test failures.

- Prevent embarrassing or costly security holes as it detects Security Vulnerabilities.

- Less human error, Faster deployments as it automates Infrastructure creation.

Reduce Costs

- Less developer time on issues from new developer code due to catching compile errors directly after merge.

- Less infrastructure costs from unused resources due to the Automated Infrastructure Cleanup.

Avenue

Increase Avenue

- New value-generating features released more quickly due to faster and more frequent production deployments.

- Less time to market as deployment to production will be without manual checks.

Protect Avenue

- Reduced downtime from a deploy-related crash or major bug due to the automated smoke tests.

- Quick undo to return production to working state as there is automated rollback that is triggered by job failures.