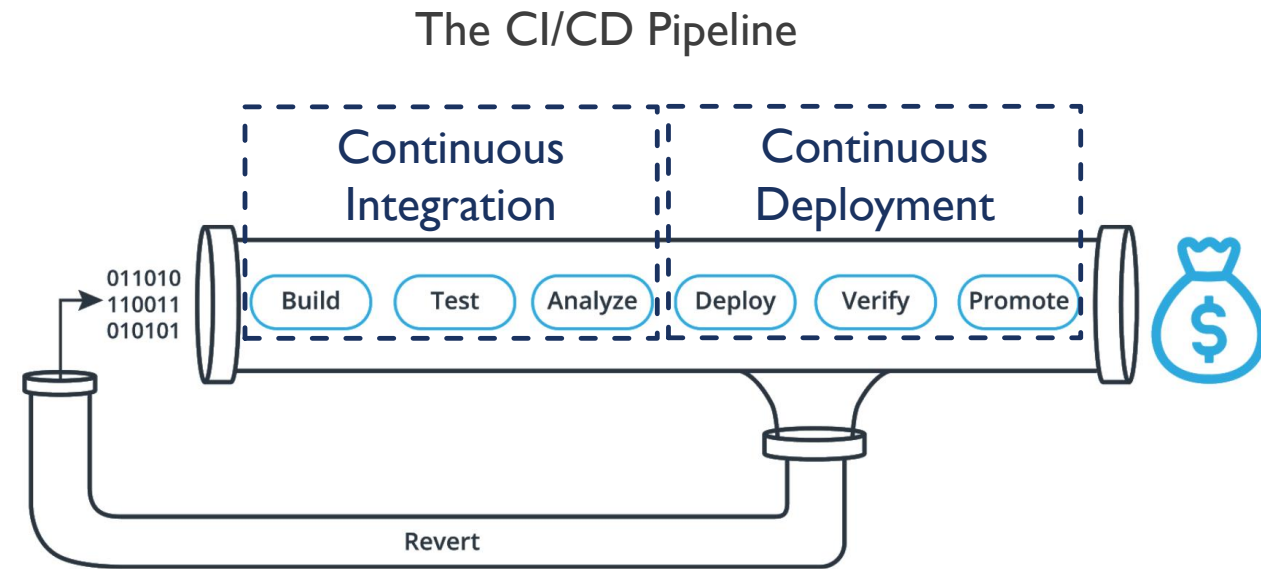




BENEFITS OF CI/CD.

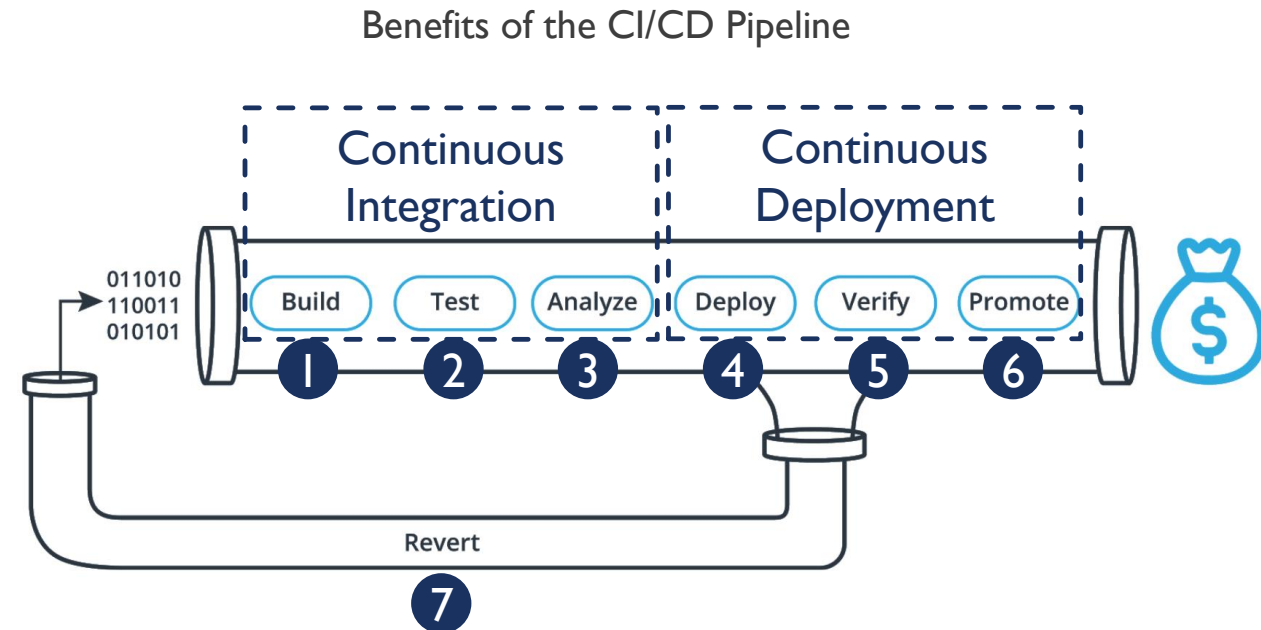
CI/CD ARE PROCESSES TO AUTOMATE AND OPTIMIZE THE MAKING AND DISTRIBUTION OF SOFTWARE PRODUCTS.

- Continuous Integration (CI) is a process that allows making software on a daily basis. All working copies of developers are merged to a common baseline several times per day.
- Continuous Deployment (CD) is a process to automate the distribution of software products.
- Both processes are directly connected with each other into a pipeline that enables a continuous delivery of software products.



CI/CD REDUCES COSTS AND INCREASES REVENUE BY OPTIMIZING AND AUTOMATING THE SOFTWARE DEVELOPMENT PROCESS.

- (1) Reduced cost from development time of new features: errors are caught directly at code merge.
- (2) Less bugs in production code and less time for testing due to automated units tests.
- (3) Security vulnerabilities are avoided by systematic code analysis.
- (4) Automated creation and deletion of infrastructure allows fast and safe deployments as well as the reduction of obsolete resources.
- (5) Automated smoke tests reduce potential downtime from bugs or crashes.
- (6) Automated promotion of new features ensures quick value creation.
- (7) Automated roll-back ensure a quick return to a working production product.



HARVESTING THE BENEFITS OF CI/CD REQUIRES THE RIGHT MINDSET AND ADEQUATE TOOLING.

- Mindset:
 - Fail fast.
 - Measure quality.
 - Maximize automation.
 - Configure everything in code.
 - There is no plan B to production except CI/CD
- Tooling:
 - Must be able to cover all stages of CI/CD process.
 - Must ensure that everything can be automated and programmatically configured.
 - Various products are available.