UDAPEOPLE

Benefits of CI/CD to Achieve, Build, and Deploy Automation for Cloud-Based Software Products

Continuous Delivery

Continuous Delivery consist of Continuous Integration and Continuous Deployment

1

Continuous Integration has following steps

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

2

Continuous Deployment has following steps

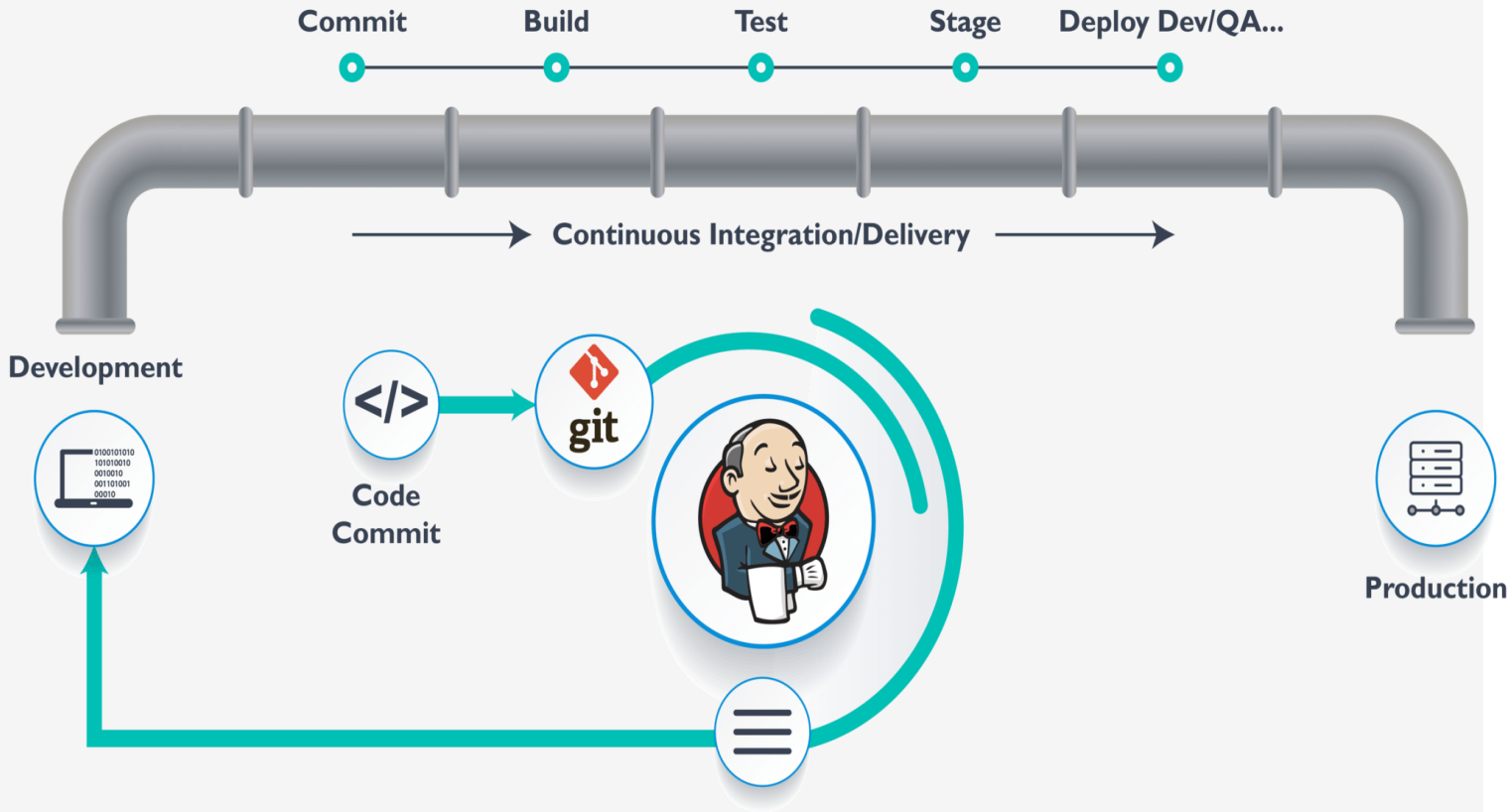
- Creating infrastructure
- Provisioning servers
- Copying files
- Promoting to production
- Smoke Testing (Verify)
- Rollbacks

CI/CD Pipeline

CI/CD Pipeline has many stages. It starts with committing the code to the GIT repo, building the code, testing the code, analyzing the code. These initial stages are considered to be part of continuous integration.

Then deploy, verify and promote the code which is part of the deployment stages

CI/CD will make sure starting from code commit till the deployment of the product, making most of the stages fully automated without any human interactions



Benefits of CI/CD

1. **Automation**:
   - Reduces manual interventions and errors
   - Delivers products very faster
   - Increase revenue

2. **Catch failures early (Shift Left)**:
   - CI/CD helps to detect the failures during code build, testing, scanning and analysis phase
   - Early catching of failure will help to fix the issues quickly
   - Reduce revenue loss

Benefits of CI/CD contd..

3. **Security**:
   - Detect serious security vulnerability in early stage
   - Saves revenue loss due to regulatory and compliance issues

4. **Faster Delivery**:
   - Faster project delivery to customers
   - Increase revenue