

# What Is Continuous Integration, Delivery and Deployment?

Every employee must take responsibility for continuous improvements to products, services, and processes for an organisation to be effective. Improvements can reduce errors or waste, add value or safety, or address issues that slow down or irritate users.

Companies will occasionally engage in significant improvement projects, but a continuous improvement mindset means that a professional is always looking for and acting on even the smallest opportunities for improvement. Even when things are going well, a professional always looks for ways to improve.

## Continuous Integration

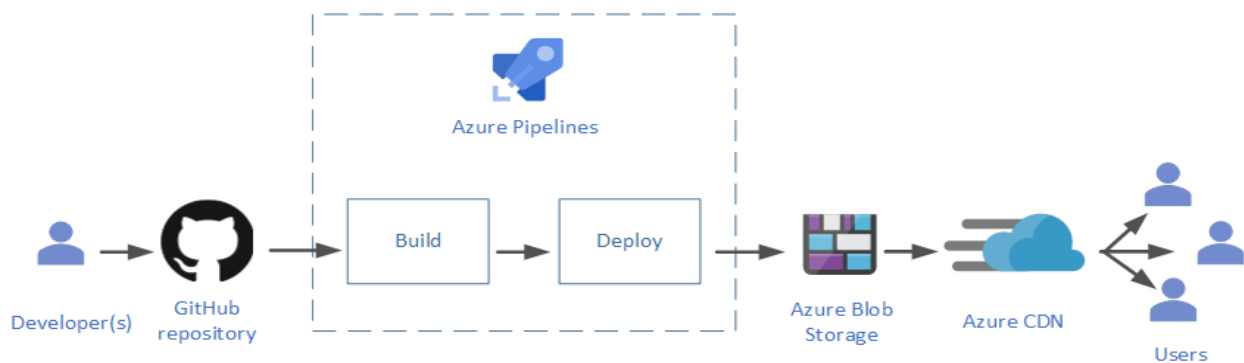
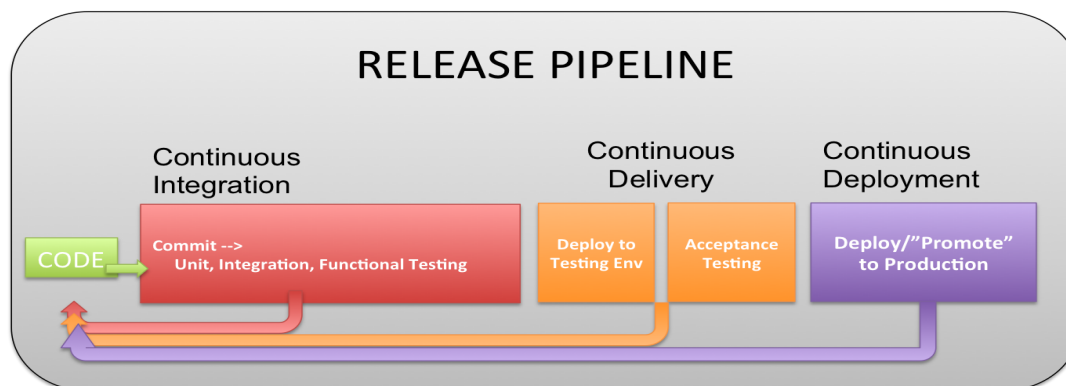


Image from Microsoft azure

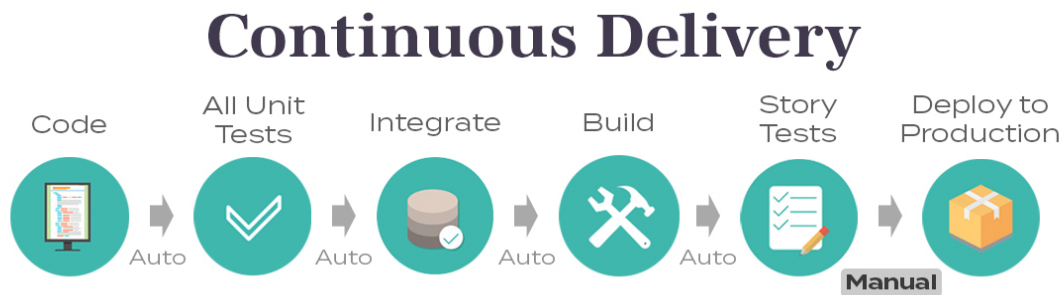
Continuous integration allows development teams to quickly integrate code changes into a shared storage space. Along with automated versioning and pre-integration testing, this capability ensures that only fully functional application code is available for distribution.

## Continuous Deployment



Continuous deployment is a software release strategy in which any code commit that passes the automated testing phase is automatically released into the production environment, resulting in visible changes to the software's users.

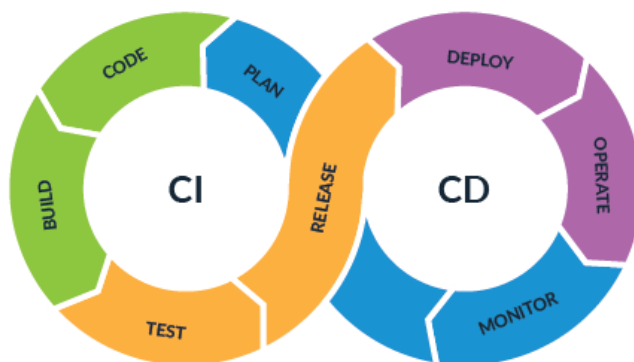
## Continuous Delivery



Continuous delivery is a software development practice in which code changes are automatically prepared for production release. Continuous delivery, a pillar of modern application development, extends on continuous integration by deploying all code changes to the testing and/or production environment following the build stage.

## Why CI/CD?

CI/CD enables organizations to ship software quickly and efficiently. CI/CD enables an efficient process for bringing products to market faster than ever before, continuously delivering code into production, and ensuring an ongoing flow of new features and bug fixes via the most efficient delivery method.



## **The benefit of CI/CD?**

- Smaller Code Changes
- Fault Isolations
- More Test Reliability
- Increase Team Transparency and Accountability
- Faster Release Rate
- Customer Satisfaction
- Smaller Backlog
- Reduced Cost
- Easy Maintenance and Updates