

CI/CD

Udapeople Project

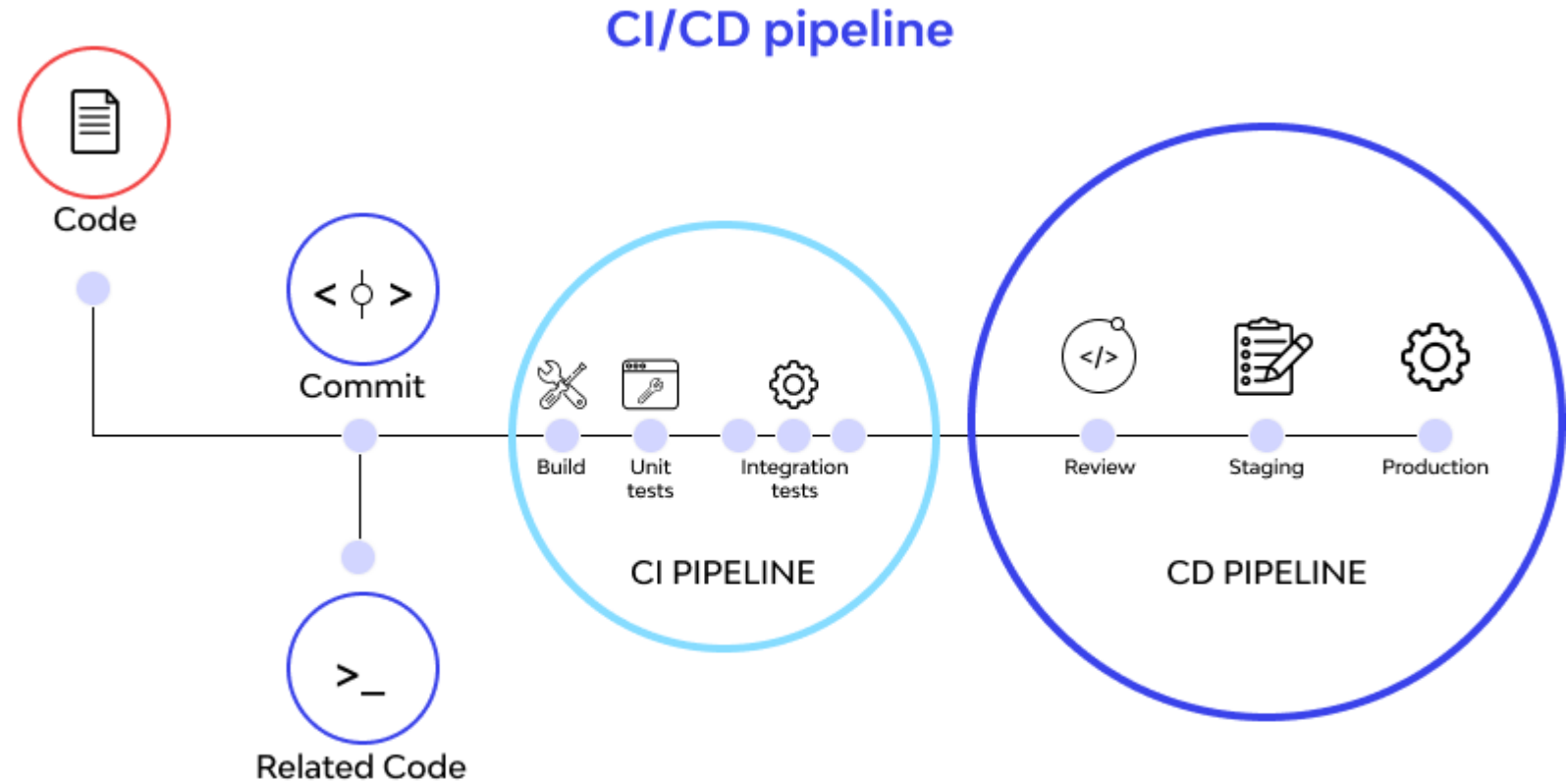
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CONTENTS

1. OVERVIEW
2. THE IMPORTANT OF CI/CD
3. BUSSINESS VALUES

1. OVERVIEW

- A continuous integration (CI) and continuous deployment (CD) pipeline is a series of steps that must be performed in order to deliver a new version of software.
- CI/CD pipelines are a practice focused on improving software delivery throughout the software development life cycle via automation.



2. THE IMPORTANCE OF CI/CD



Faster

Speeds up software delivery and makes the process more efficient. With the automation of most testing and bug fixing, developers can increasingly focus on writing code and improving the quality of the application.



Earlier bug detection

Developers can identify bugs and other problems as they arise — with the majority detected in early stages — eliminating potentially devastating surprises during deployment.



Greater visibility

A CI/CD pipeline allows development teams to analyze builds, as well as test results and coding errors with great detail. This gives them a better understanding of what build changes led to problems and inefficiencies and prepares them to avoid these issues in the future.



Faster feedback

CI/CD sets up a constant user feedback loop that developers can use to their advantage to experiment with features and improve the app experience.



Reduced costs

The automated approach of CI/CD reduces the number of errors at every stage of the development process and simplifies the repair of errors that do occur. Developers no longer have to spend time on mundane, manual tasks, which allows them to focus on improving code quality and making app improvements that boost ROI.

3. Business Values - Costs

CI/CD automation can lower costs for your organization. Fast/frequently released software and features save not only time but also cut down on:

- **Deeply expensive downtime:** Long-term downtime does not only influence the revenue negatively but also undermines the company's credibility.
- **Troubleshooting costs:** With CI/CD pipeline properly automated, the process of the product deployment and release is more reliable, and developers are not wasting hours on bug-fixing.
- **Switching/onboarding costs:** Automated CI/CD let new members of the team get down to business right away without having to deal with an exhausting learning curve.
- **Staff turnover costs:** Happy employees — more successful company! When developers are freed from manual, repetitive tasks, they focus on creating new features and code and continuous quality improvement, isn't that right? Sure, it is. With them knowing they can rely on their system, employees become more relaxed and satisfied and, as a result, they stay with you, work harder and become more and more in love with the company.

THANKS FOR YOUR ATTENTION!