# GIVE YOUR APPLICATION AUTO-DEPLOY SUPERPOWERS

Eya Ben Slimen

WHAT IS DEVOPS?

DevOps is a set of practices that combines software development and IT operations to shorten the development lifecycle while providing continuous delivery and integration of high-quality software. The goal of DevOps is to increase collaboration and communication between development and operations teams, enabling faster delivery of features and improvements to customers. This is often achieved through automation of infrastructure, testing, and deployment processes.
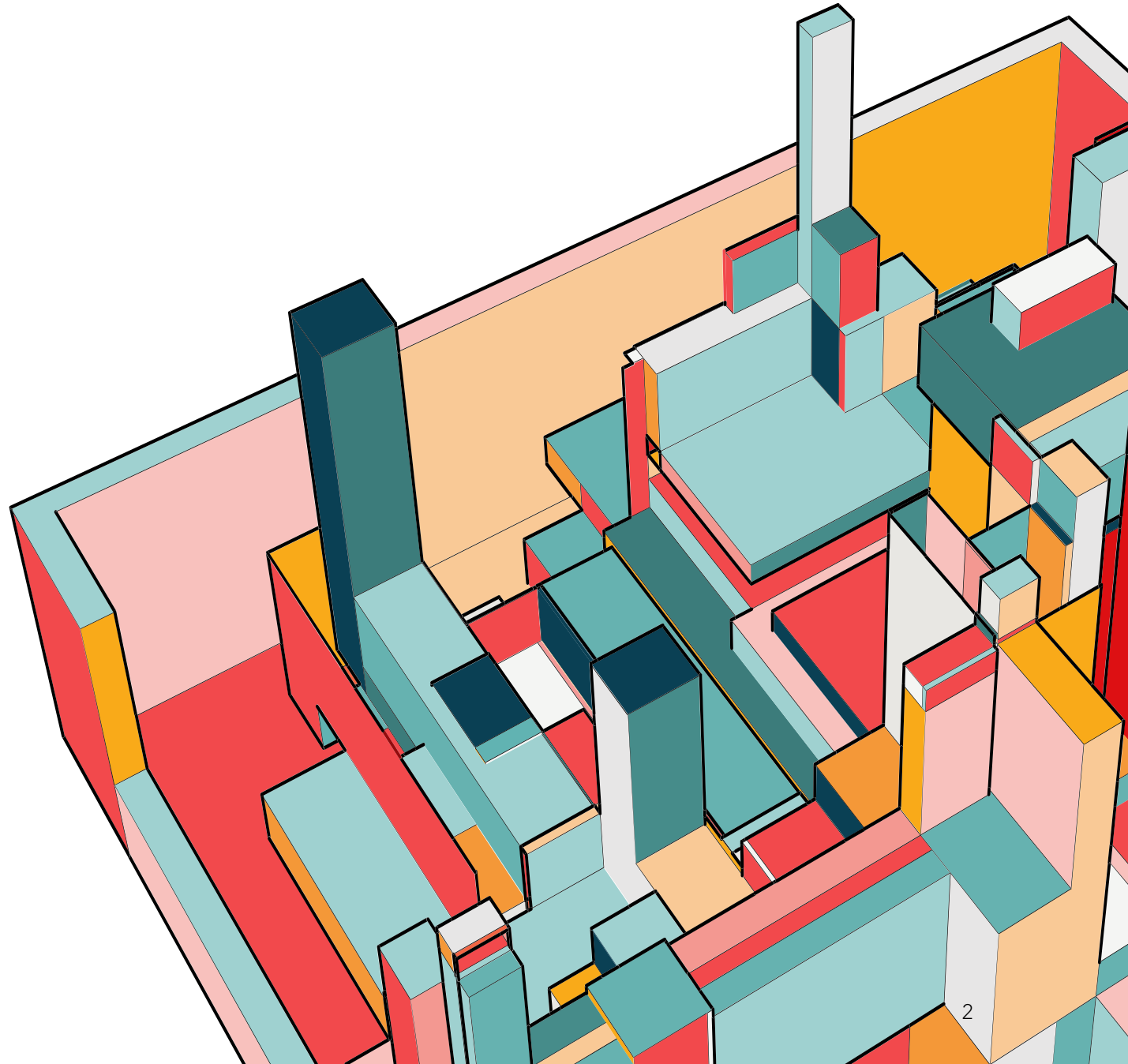
BENEFITS OF CI/CD

Faster release cycles

By automating the build, test, and deployment processes, teams can release new features and bug fixes to customers more quickly and frequently.

Greater collaboration

CI/CD encourages teams to work together more closely, with development, testing, and operations teams collaborating to ensure that new code is deployed quickly and safely.

Better visibility

By continuously monitoring the pipeline and providing feedback, teams can track the progress of their work and take corrective action when necessary.

Improved quality

Automated testing and continuous integration help to catch and fix bugs early in the development process, reducing the likelihood of introducing new bugs into production.

Increased efficiency

Automating repetitive tasks frees up time for teams to focus on more important work and reduces the risk of human error.

Cost savings

Automation of the build, test and deployment processes can lead to cost savings in terms of human resources and infrastructure.

3
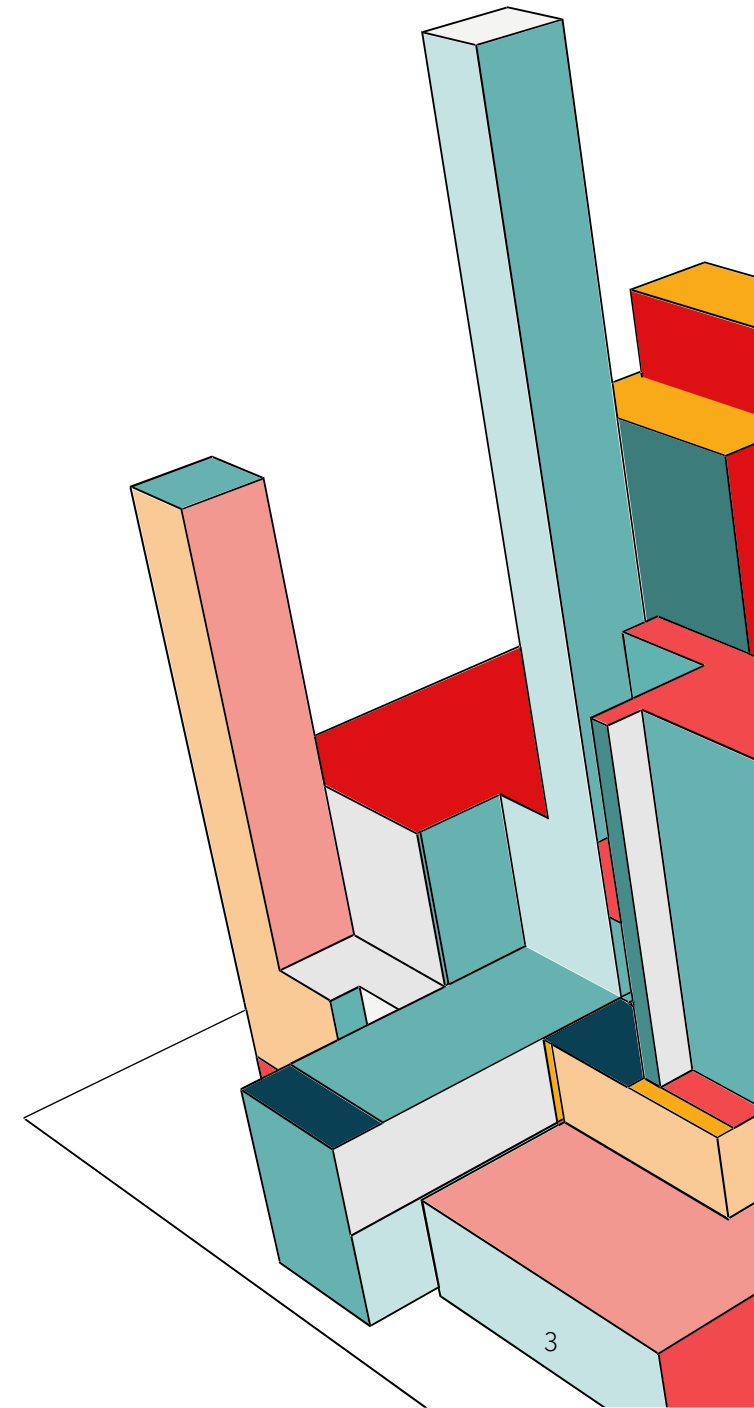
THE FUNDAMENTALS OF CI/CD

The fundamentals of CI/CD are built around the idea of automating and streamlining the software development and delivery process. The key components of CI/CD include:

- Continuous Integration: This is the practice of integrating code changes into a shared repository several times a day. This allows development teams to detect and fix issues early in the development process.
- Automated Testing: This is the practice of using automated testing tools to ensure that code changes do not introduce new bugs or break existing functionality.
- Continuous Deployment: This is the practice of automatically deploying code changes to a production environment once they have passed automated testing.

THE FUNDAMENTALS OF CI/CD

- Continuous Delivery: This is the practice of making sure that code changes are always in a releasable state and can be deployed to production at any time.

- Monitoring: This is the practice of monitoring the performance of the application in production and identifying and addressing issues as they arise.

Together, these practices allow development teams to deliver high-quality software faster and more frequently, with less risk and greater reliability.
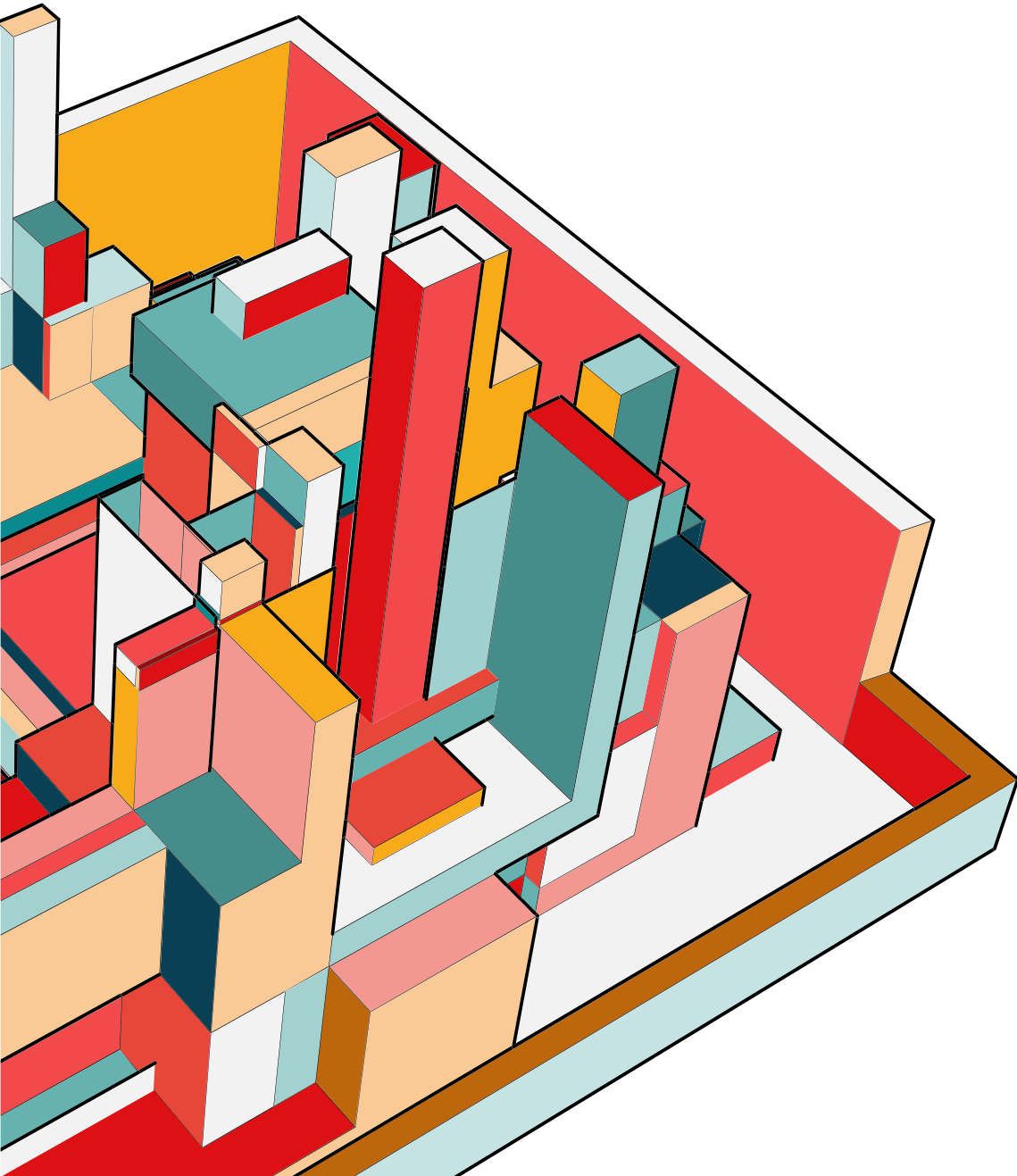
SUMMARY

We discussed DevOps, which is a set of practices that combines software development and IT operations to shorten the development lifecycle while providing continuous delivery and integration of high-quality software. The goal of DevOps is to increase collaboration and communication between development and operations teams, enabling faster delivery of features and improvements to customers. This is often achieved through automation of infrastructure, testing, and deployment processes.

We also discussed about CI/CD which is the fundamentals of DevOps and its benefits such as Faster delivery, Increased collaboration and communication, Improved software quality, and less risk and greater reliability.

THANK YOU