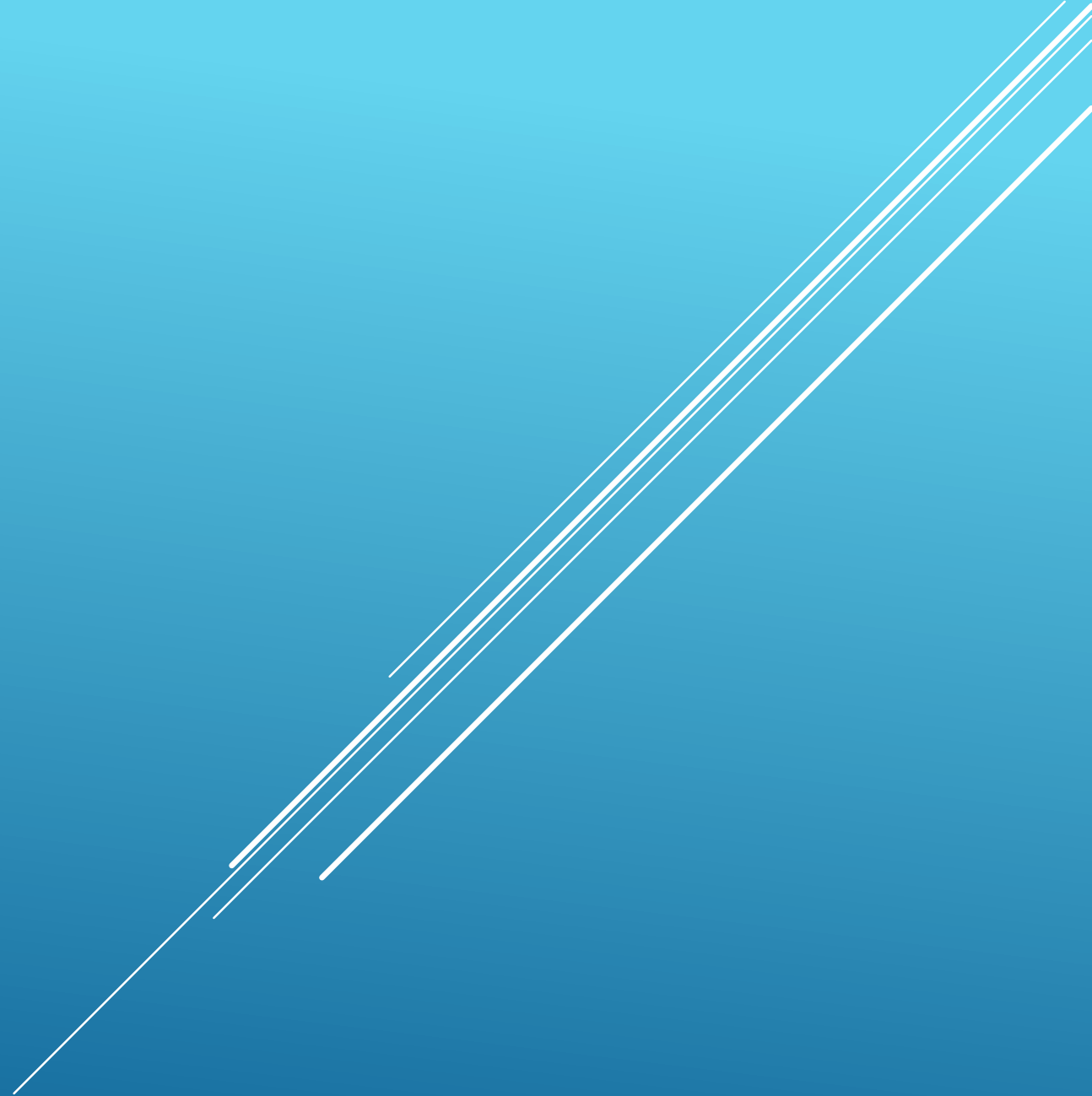# CI/CD PIPELINES EXPLAINED

Mukul Kumar
Udapeople
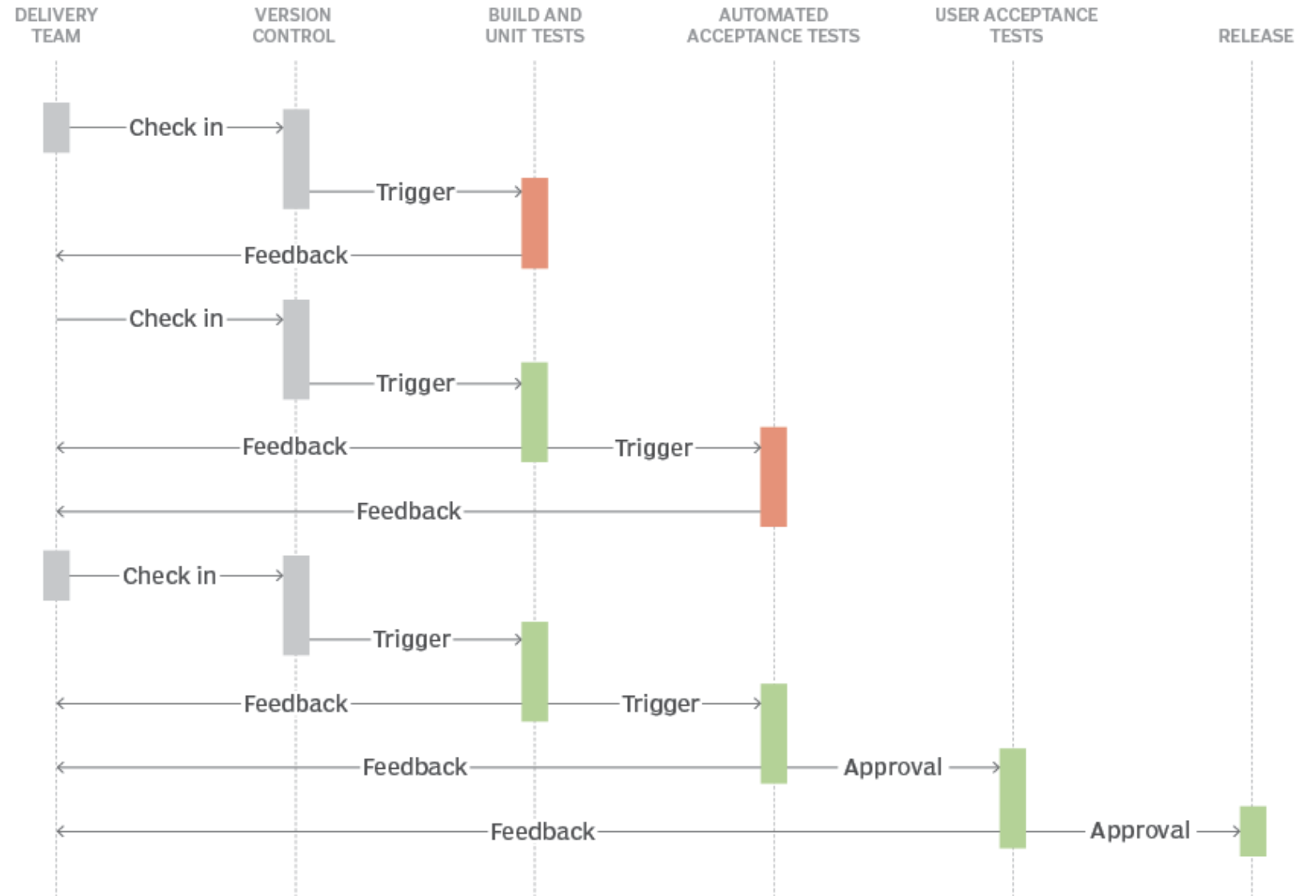
- **Smaller Code Changes**

- **Fault Isolations**

- **More Test Reliability**

- **Faster Release Rate**

- **Faster Mean Time To Resolution (MTTR)**

- **Easy Maintenance and Updates**

- **Increase Team Transparency and Accountability**

BENEFITS OF CI/CD TO ACHIEVE, BUILD, AND DEPLOY AUTOMATION FOR CLOUD-BASED SOFTWARE PRODUCT

UTILIZE DEPLOYMENT STRATEGIES TO DESIGN AND BUILD CI/CD PIPELINES THAT SUPPORT CONTINUOUS DELIVERY PROCESSES
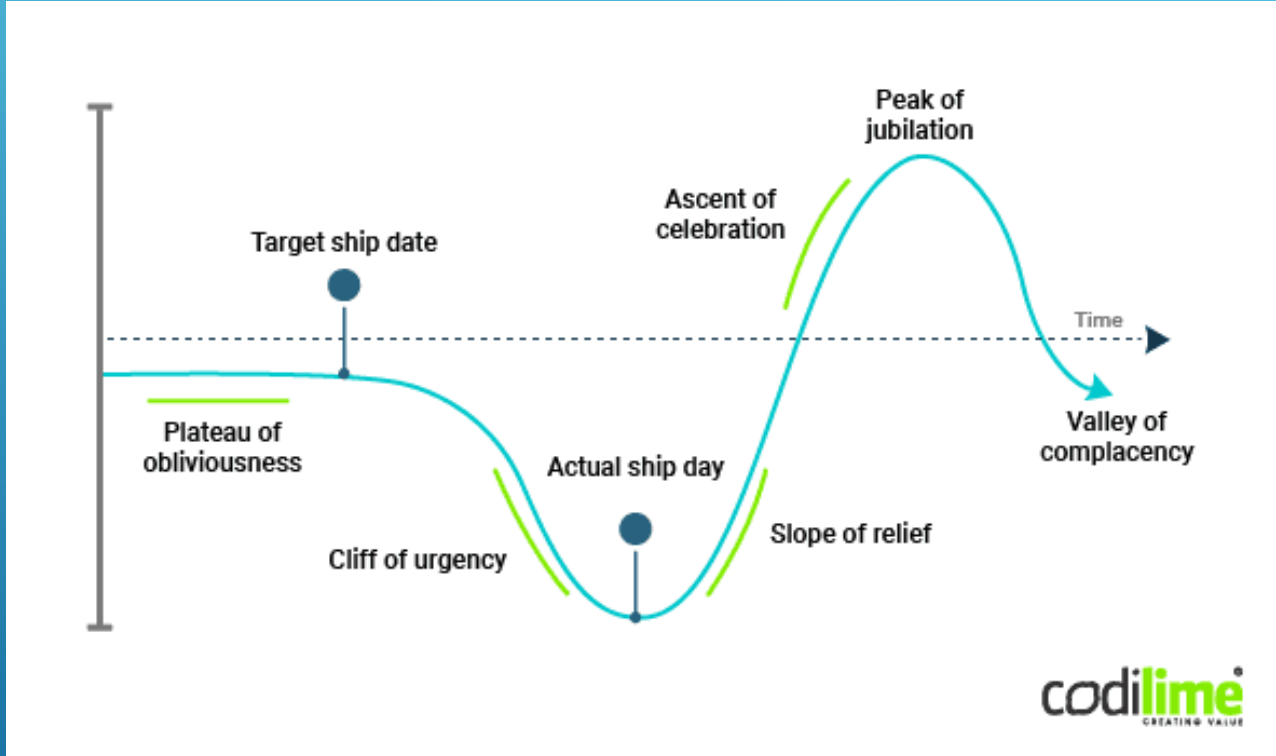

Continuous delivery process

| DELIVERY TEAM | VERSION CONTROL | BUILD AND UNIT TESTS | AUTOMATED ACCEPTANCE TESTS | USER ACCEPTANCE TESTS | RELEASE |

UTILIZE A CONFIGURATION MANAGEMENT TOOL TO ACCOMPLISH DEPLOYMENT TO CLOUD-BASED SERVERS

In the cloud, multiple tools provide automation for infrastructure, compliance, and security management. Configuration management tools allow increased consistency, faster provisioning, better version control on configurations, required governance & control, and speedier recovery from critical events.
Some of the most popular configuration management tools include Puppet, Chef, Ansible etc.

BUSINESS VALUES TRANSLATION

- **Boosts DevOps efficiency**
- **Gain Real-Time Visibility of the Development Process**
- **CI/CD supports customer outcomes from a technical standpoint.**
- **CI/CD plays a crucial role in shortening time to value.**
- **CI/CD enables organizations to respond to consumer needs as they evolve.**
- **Allows Developers to Deliver Products Consumers Want Now.**
- **Bring Products to Market Faster**

- Effective software delivery is essential for success in today's highly competitive business landscape. A recent studying shows that ineffective software delivery could cost organizations up to $126 million annually.

- This staggering figure underscores the importance of streamlining the entire software development process to optimize efficiency, reduce costs, and enhance the overall quality of the end product.

- Implementing robust practices such as Continuous Integration (CI) and Continuous Delivery (CD) can dramatically improve software delivery, providing businesses with the agility and adaptability necessary to stay ahead in the rapidly evolving world of technology.

BENEFITS THAT CREATE REVENUE, PROTECT REVENUE, CONTROL COSTS, OR REDUCE COSTS