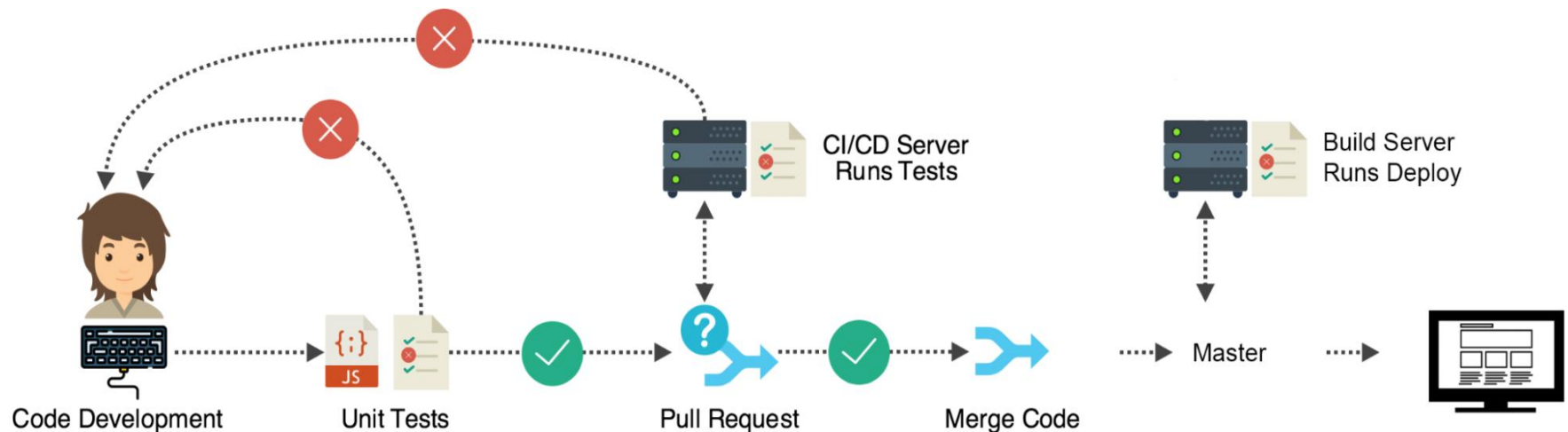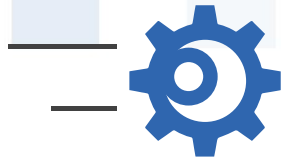# Fundamentals and benefits of CI/CD

A better and effecient way to delever our products.

UDACITY

- **Continous Integration** is a development practice of code integration into a shared repository. Each integration is verified by an automated buid and automated tests.

- **Continous Deployment** is the process by which verified changes in codebase or system architecture are deployed to production as soon as they are ready and with out human input.
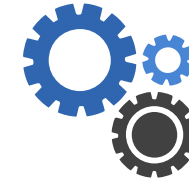
Benefits of CI/CD to our business

Applying CI/CD enables the enterprise to **release features more frequently**.which help us to get feedback earier.
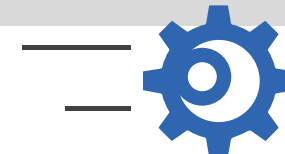
Having less bug in our live app and spending less time doing manual testing would help us **avoid cos**t.

Automated smoke testing would **protect our revenue** by reducing downtime caused by deploy-related cursh and bugs.
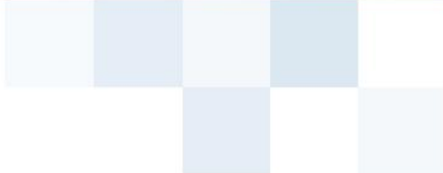
Unit tests are not neglected in CI/CD which will increase code quality and catch errors early. which would **decrease cost.**.
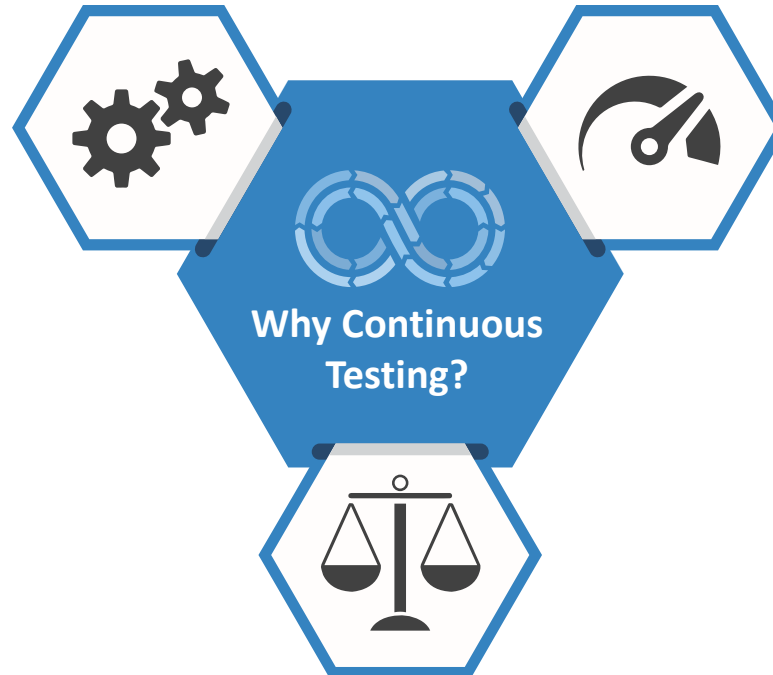
Automating infrastructure creation and clean up will eliminate human errors and **avoid unnecessary costs** of unused for invalid infrastructure.

The new software paradigm requires the business to define and establish automated quality gates that continuously mitigate the risk of *business* failure

Continuous Testing mitigates business risk

Systematic, centralized decision making to factor business risk into SDLC

Safety net to allow developers to bring innovations to market faster

Why Continuous Testing?

A feedback system for better trade-off decisions between release scope, time and quality