## Why we should use CI/CD

## What is CI/CD?

Continuous integration/continuous delivery (CI/CD) is a method to frequently deliver apps to customers by introducing automation into the stages of continuous delivery, and continuous deployment. CI/CD is a solution to the problems integrating new code can cause for development and operations teams

**Continuous integration (CI)** is the practice of integrating all your code changes into the main branch of a shared source code repository early and often, automatically testing each change when you commit or merge them, and automatically kicking off a build. With continuous integration, errors and security issues can be identified and fixed more easily, and much earlier in the development process.

**Continuous Delivery (CD)** is a software development practice that works in conjunction with CI to automate the infrastructure provisioning and application release process.

## What will we gain by using CI/CD?

We will bring products to market faster: i.e start generating revenue from new features as they are deployed rather than waiting days or weeks for teams to build, test and deploy bundles of features

**Faster time to fault resolution:** smaller code changes, means that features can be delivered faster, and if there is a problem, then rolled back and fixed quicker.

**More testing!:** test reliability improves due to the bite-size and specific changes introduced to the system, allowing for more accurate positive and negative tests to be conducted

## **Reduction of costs**

A CI/CD pipeline should reduce time to live, fewer testing rounds, fewer deployment problems, no more scheduling builds with a deployment team

Developers will be free to spend more time on product development

Bugs will be caught by the tests.

All these add up to an increase in our ROI!