CI-CD PROJECT

OVEVIEW

- **What is CI/CD?**
- **Why CI/CD Matters**

CI/CD Pipeline

Code — Commit — **Build — Unit Tests — Integration Tests** (CI PIPELINE) — **Review — Staging — Production** (CD PIPELINE)

Related Code
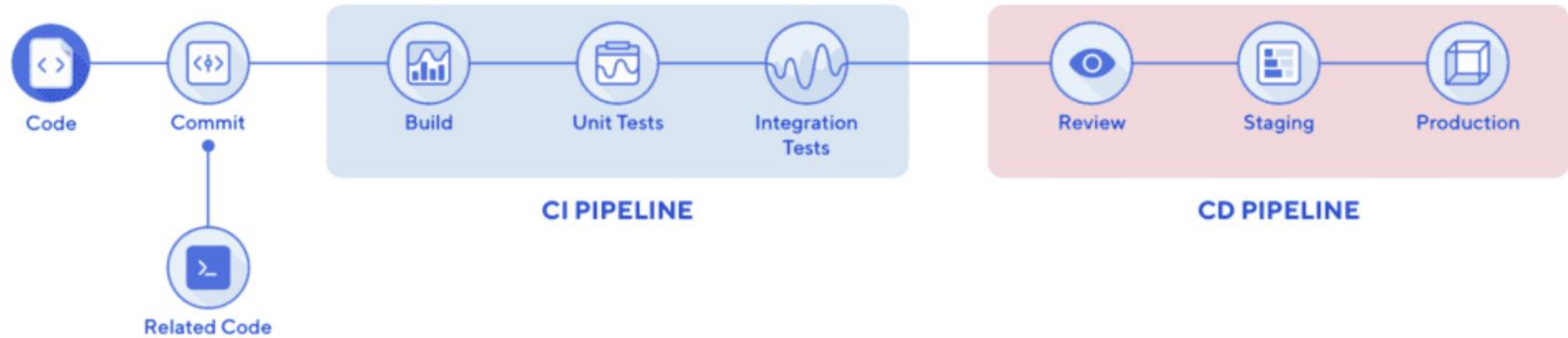
What is CI/CD?

- Continuous integration (CI) and continuous delivery (CD) are the processes that are used to build, package, and deploy your application. Basically, it lays out some practices to follow in order for the code you write to more quickly and safely get to your users and ultimately generate value.

Why is CI/CD Important?

CI/CD practices should matter to you as it helps get continuous feedback not only from your customers but also from your own team. Moreover, in an organization, it can also lead to big advantages. Some of the notable benefits of implementing CI/CD pipelines to your everyday software development process are:

- ➢ **Reduce costs:** Using automation in the CI/CD pipeline helps reduce the number of errors that can take place in the many repetitive steps of CI and CD.
- ➢ **Smaller code changes:** One technical advantage of CI and CD is that it allows you to integrate small pieces of code at one time. This helps developers to recognize a problem before too much work is completed afterward.
- ➢ **Faster release rate:** Failures are detected faster and as such, can be repaired faster, leading to increasing release rates.
- ➢ **Fault isolations:** Designing your system with CI/CD ensures that fault isolations are faster to detect and easier to implement.
- ➢ **More test reliability:** Using CI/CD, test reliability improves due to the bite-site and specific changes introduced to the system, allowing for more accurate positive and negative tests to be conducted.