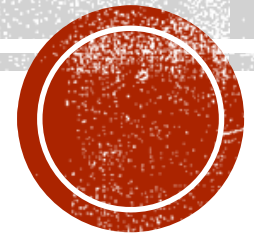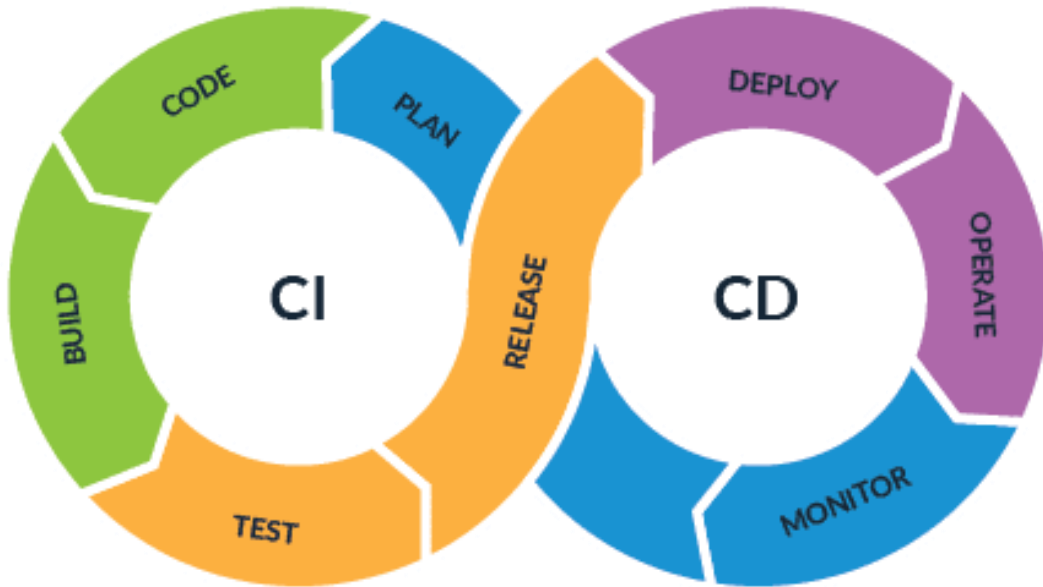# CI/CD, WHAT AND WHY

CONTINUOUS INTEGRATION

- Continuous Integration is automating the process of building and testing of code.

- CI allows developers to frequently merge code changes into a central repository where builds and tests are run.
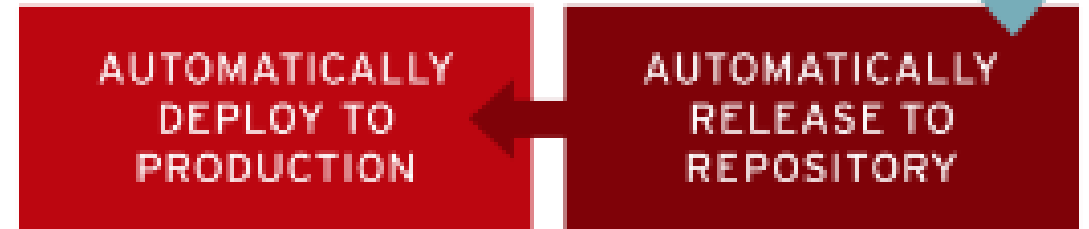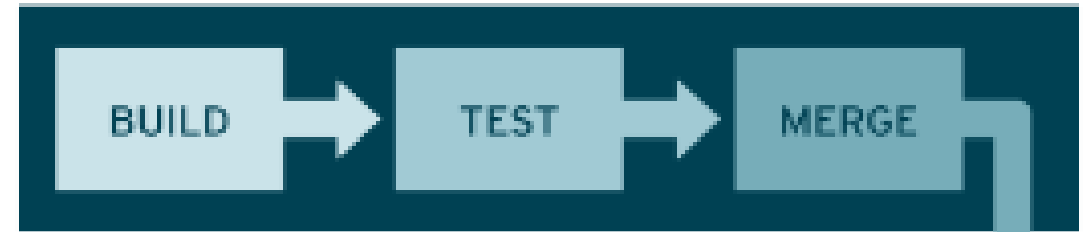
CONTINUOUS DEPLOYMENT

- After code has been built and tested, the next step is deployment.

- Continuous deployment is the process of automating the deployment of code into production.

CI/CD IMPLEMENTATION

WHY CI/CD

- catch errors easily and spend less time on issues, saving costs because of reduced man-hours

- Automating Unit Tests in CI means developers can catch production-breaking bugs in development

- Automating infrastructure deployment in CD means there will be less human error and faster deployment

- Continuous monitoring allows for practice detection and ability to define incident response

MONITORING WITH PROMETHEUS