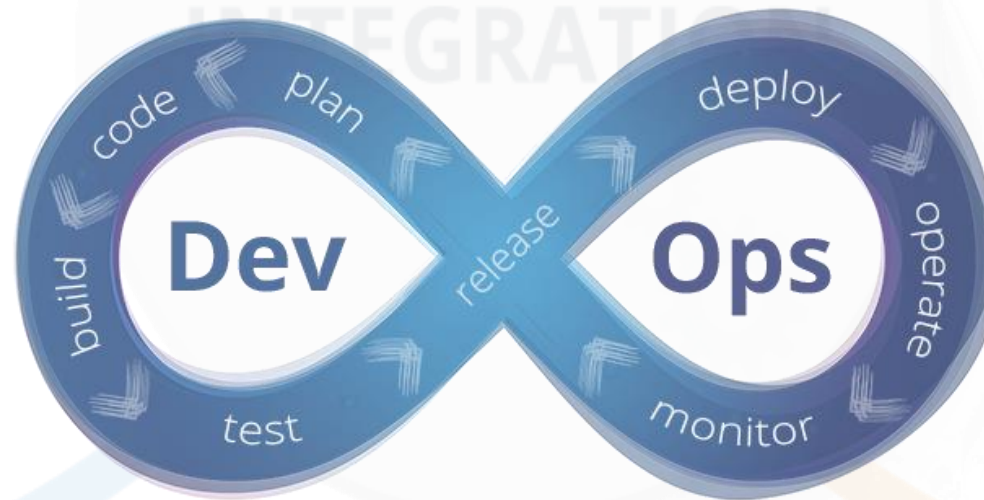# CI/CD FOR AUTOMATION IN DEVELOPMENT ENVIRONMENTS
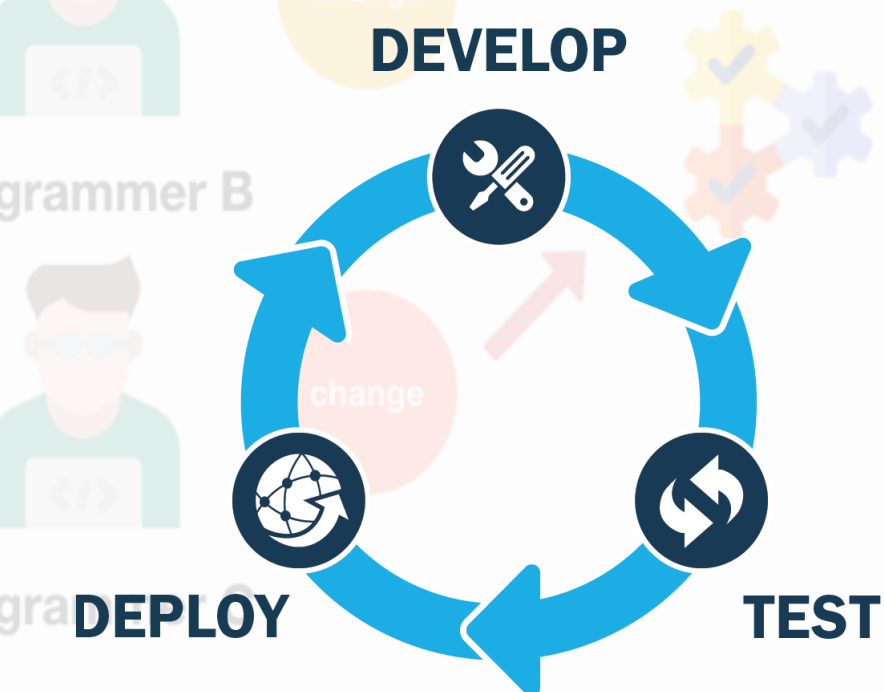

OYINUAH SIMENI

Continuous Integration (CI)

- At ThoughtWorks, CI is defined as;

"Continuous Integration (CI) is a development practice that requires developers to integrate code into a shared repository several times a day. Each check-in is then verified by an automated build, allowing teams to detect problems early."
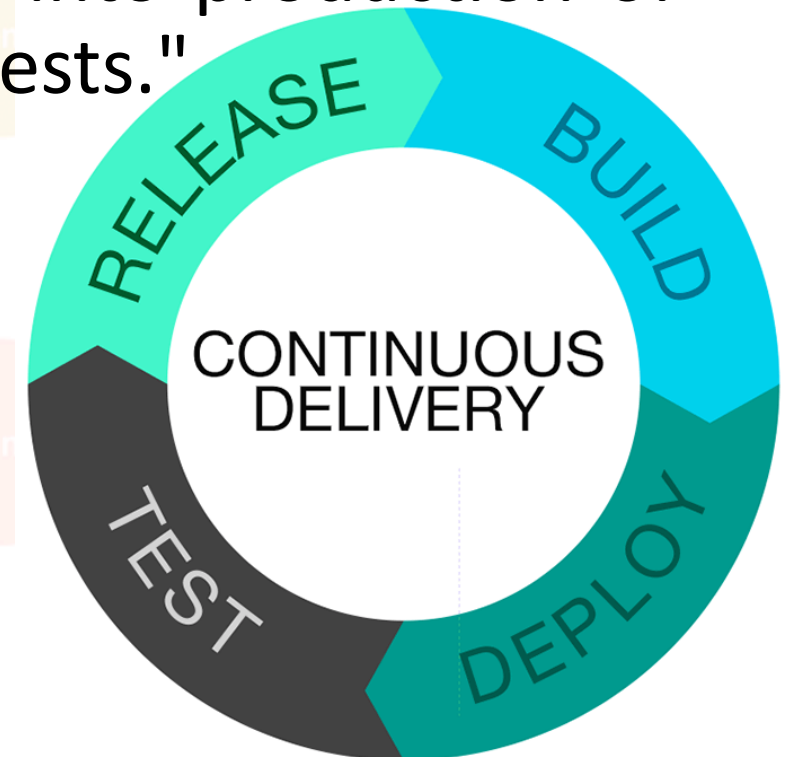
DEVELOP

DEPLOY

TEST

Simply put, every change in the code, has to be saved to a central repository regardless of how small the change might be. This makes changes trackable, and easy to rollback.

Continuous Delivery (CD)

Jez Humble and David Farley in their book 'Continuous Delivery: Reliable Software Releases through Build, Test, and Deployment Automation' defined CD as;

"Continuous Deployment is closely related to Continuous Integration and refers to the release into production of software that passes the automated tests."

Continuous delivery ensures that new codes or features are delivered in smaller batches; at great speed, bug-free and easy to manage.

Benefits of CI/CD

CI/CD has a host of benefits for businesses that implement this best practice. Major reasons businesses need CI/CD are:

- Cost-effective: The CI/CD pipeline focuses resources on things that matter, reducing the costs and complexity that comes with combining resource (developers, budget) and business constraints (deadline, Product delivery).

- Continuous revenue generation: Since product/feature release is continuous organizations can generate revenue from new features as that are rolled out.

- CI/CD encourages continuous deployment of codes/features leading to increased speed of innovation and competitive advantage in the marketplace.

- Improved customer satisfaction: Using CI/CD approach improves customer satisfaction because of the fast and frequent releases of improvements or features without interruption in business flow/operations.

CI/CD is described as a set of development best practices that allows the swift and reliable delivery of code changes. CI/CD is a game changer with the capability to save both money and time; bringing all members of the development processes together.

THANK YOU