ALL ABOUT
CI/CD
PIPELINE

What is a CI/CD pipeline?

The primary goal of a CI/CD pipeline is to automate the software development lifecycle (SDLC).

CI/CD pipeline integrates automation and continuous monitoring into the development lifecycle.

It will reduce manual tasks for the development team which in turn reduces the number of human errors while delivering fast results.
All these contribute towards the increased productivity of the delivery team.

Stages in a CI/CD pipeline

A CI/CD pipeline can be divided into four main stages:

SOURCE   BUILD   TEST   DEPLOY

Continuous monitoring

SOURCE

The CI/CD pipeline gets triggered by change in the program or a preconfigured flag in the code repository (repo). This stage focuses on source control, covering version control and tracking changes.

What exactly happens in this stage?
If the automated workflow detects a change in the central repository, it will trigger tasks such as codecompilation and unit testing.

BUILD

The pipeline combines the source code with all its dependencies to an executable instance of the development.
This stage covers Software builds & other kinds of buildable objects, such as Docker containers.

This stage is the most important one.
Failure in a build could indicate a fundamental issue in the underlying code.
This stage also includes the build artifact handling. This gives us the ability to roll back to the previous build if there are any issues with the current build.
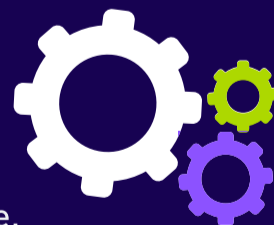
TEST

This stage incorporates all the automated testing to validate the behaviour of the software.

The goal of this stage is to prevent software bugs from reaching end-users.
Multiple types of testing from integration testing to functional testing can be incorporated into this stage.
This stage will also expose any errors with the product.

DEPLOY

This is the final stage of the pipeline. After passing all the previous stages, the package is now ready to be deployed.

The package is deployed to proper environments as first to a staging environment for further quality assurance and then to a production environment.

For more info follow this link:
https://www.bmc.com/blogs/ci-cd-pipeline-setup/
GOOD LUCK!