**📘 GitLab CI/CD Pipeline Guide**

**1. Introduction**

GitLab CI/CD is a powerful tool integrated into GitLab that automates the software development lifecycle. It enables developers to build, test, and deploy code automatically with minimal manual intervention. This guide will walk you through everything from basic setup to advanced features.

**2. Getting Started**

To begin using GitLab CI/CD:

* Create a file named .gitlab-ci.yml in the root of your repository.
* Define your pipeline configuration in this file.
* Push the file to GitLab — the pipeline will trigger automatically.

**Prerequisites:**

* A GitLab account and repository.
* Basic knowledge of Git.
* Access to GitLab Runners (shared or custom).

**3. Basic Syntax of .gitlab-ci.yml**

The .gitlab-ci.yml file uses YAML syntax. Key elements include:

stages:

  - build

  - test

  - deploy

A screen shot of a computer program

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**Explanation:**

* stages: Defines the order of execution.
* Each job (like build\_job) is assigned to a stage.
* script: Contains the shell commands to run.