

Project Lead,
UdaPeople Technologies Inc,
2469 Avenue Block,
Lagos, Nigeria

PROPOSAL FOR THE INTEGRATION OF CI/CD(Continuous Integration/Continuous Development) INTO THE UdaPeople PRODUCT

Introduction

Maximizing high levels of productivity with less resources and within a short period of time is paramount to the goals of a dynamic organization striving to lead in the scope of its operation.

UdaPeople is not let out in these goals thus the need to consider the integration of the CI/CD pipeline into our development process which in turn will give the benefits outlined in the detailed explanations in the stages below.

Continuous Integration

Continuous integration (CI) is the practice of automating the integration of code changes from multiple contributors into a single software project. It's a primary [DevOps best practice](#), allowing developers to frequently merge code changes into a central repository where builds and tests then run. Automated tools are used to assert the new code's correctness before integration.

A source code version control system is the crux of the CI process. The version control system is also supplemented with other checks like automated code quality tests, syntax style review tools, and more.

Importance Of Continuous Integration includes the following:

- ★ CI automates coordination and communication for developers when they are contributing code to the end product.
- ★ The communication overhead of a CI environment becomes simplified, which in turn reduces unnecessary bureaucratic cost to projects significantly.
- ★ It leads to fast code releases with lower rates of failure.
- ★ CI helps to scale up headcount and delivery output of engineering teams.

- ★ CI allows software developers to work independently on features in parallel. When they are ready to merge these features into the end product, they can do so independently and rapidly.
- ★ CI is a valuable and well-established practice in modern, high performance software engineering organizations.

Continuous Development

Continuous development is a software development procedure that comprises of several DevOps processes such as:

- ★ Continuous Integration(CI)
- ★ Continuous Testing
- ★ Continuous Delivery
- ★ Continuous Deployment.

Importance Of Continuous Development includes the following:

- Eliminating code conflicts and code incompatibilities early.
- Providing developers with immediate feedback on changes.
- Identifying vulnerabilities, errors, and defects early in development.
- Enforcing quality gates.

With continuous development, every change to your software may be integrated, tested, and verified. This helps to ensure that your team is able to release a safe, secure, reliable, and high-quality product on time.

With these brief points, I hope I was able to clearly present the need for a CI/CD interaction into the organization. Awaiting approval as soon as possible. Thanks.

*David Baba
Lead Engr. DevOps Unit,
UdaPeople Corporations.*