

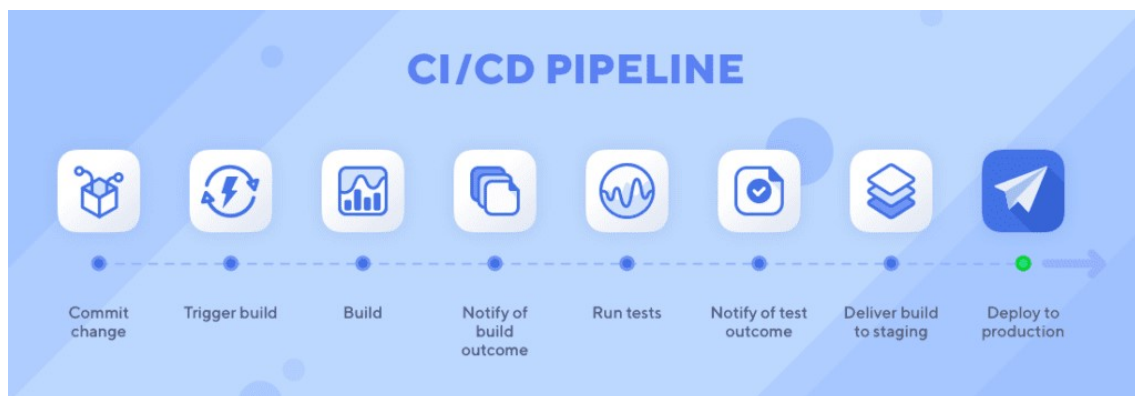
UdaPeople Tech Report | 21Q1

A project with the size and the potential of UdaPeople requires solid management, both in the financial and technological areas. I am here today to speak about ways to improve the technological management of UdaPeople and how it can, in turn, improve the financial performance of the project as well.

Implementing a Continuous Integration / Continuous Deployment Pipeline will allow us to increase the reliability of the application, improve the quality of our code, boost the confidence of our users and stakeholders, release new features faster and more often and, in doing so, increase our revenue.

A CI/CD Pipeline will allow us to automate the process from the moment developers write code to the moment the code is released to production, and it includes all intermediate steps, like building new releases, spinning up the required resources, testing for bugs, rolling back quickly in case of issues and, finally, deploying the new version into production.

This is how a typical CI/CD Pipeline looks like and in the following slides I will explain how we can benefit from it:



CI/CD | Benefits | Reduce Costs

By automatically integrating the code from all developers, it is possible to detect very early any issues with the code and fix them immediately. Developers thus spend less time investigating issues and more writing useful code.

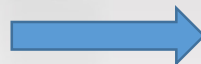
Additionally, once IT resources (servers, gateways...) are no longer needed, they can be quickly disposed of and so reduce the infrastructure costs.

Detect code errors
right after code is merged



Developers spend less time
investigating issues on the new code

Automate Infrastructure
Cleanup



Infrastructure costs reduced by
Eliminating unused resources ASAP

CI/CD | Benefits | Avoid Costs

Automatically detecting errors in unit tests as well as security vulnerabilities, a CI/CD Pipeline allows us to spend less time on testing, have less bugs in production and prevent costly security holes.

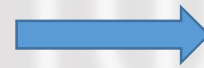
Having an automated process to create infrastructure resources leads to fewer human errors and faster deployments.

Catch unit test failures



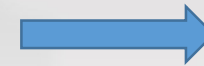
Less time spent in testing and
Fewer bugs reach production

Detect security vulnerabilities



Prevent costly security holes

Automate infrastructure creation



Fewer human error and
Faster deployments

CI/CD | Benefits | Protect Revenue

Being able to automate the smoke tests leads to a reduction in downtime caused by crashes derived from issues during deployment or major bugs.

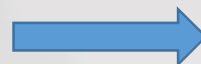
Additionally, when a job fails in the CI/CD Pipeline, the rollback operation is automatic, which allows us to return the Production environment rapidly back to a functional state.

Automated smoke tests



Reduced downtime from a deploy-related crash or major bug

Automated rollback triggered
by job failure



Quick undo to return production to
working state

CI/CD | Benefits | Increase Revenue

All the above will allow us to launch new releases containing new value-generating features in a faster and more consistent way.

Deploy new releases
Faster and more often



We will release new features that
Generate value more quickly and
consistently

Deploy to production
Without manual checks



We will reduce the time to market
of new versions
