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WHAT IS CI/CD

CI / CD stands for Continuous Integration and Continuous Deployment or Continuous Deployment.

According to Atlassian, **CI** which stands for continuous integration is a fundamental DevOps best practice where developers frequently merge code changes into a central repository where automated builds and tests run. **CD** on the other hand is a practice that for every change that passes all stages of your production pipeline, the program is released to your customers. There's no human intervention, and only a failed test will prevent a new change to be deployed to production.

These distinct strategies were created and/or developed to help develop, test and release software in a quick and consistent way. The combination of both CI and CD is often referred to as **Continuous Delivery.**

The Continuous Delivery process is quite important and will prove to be valuable to UdaPeople in the long run.

We are proposing two main resolutions to your company:

1. Production will be available to your users always
2. Features will be built continuous.

Moving from manual processes of deployment of your software to Automatic method will also be seamless, and we will available to support the team through the process.

For this task of Automatic Deployment (Continuous Delivery) we are going to be using the following tools and we want you to confirm with your technical team of the safety, security and trustworthiness of these tools.

1. AWS – Cloud Provider
2. Circle CI– Cloud Integration Pipeline
3. Ansible – IT Automation
4. Prometheus – Analytics and Metrics

BENEFITSOF CI/CD

For the benefit of our dear company. These are the benefits of CI/CD:

1. Team Satisfaction:

Currently with manual processes, there are the chances that developers are into the blame game if deployment of software encounter hiccups. With Automated deployment it is possible to catch these unit test failures early enough which will prevent downtime to your production system, and also remove the possibility of developers blaming one another for breaking the production server.

There would be less developer time wasted on catching errors and looking for issues in the codebase and more time in working on new features and more code being written for the software.

2. Easy Maintenance and updates

We can automate maintenance of the production server as well without having to log on and manually deploy new software changes and having to alter the codebase from time to time. These manual processes are the leading cause for most software breaks. Automation of these maintenance will help avoid cost caused from security vulnerabilities that might be caused by some software on the server and prevent embarrassing or costly security holes.

3. Customer Satisfaction

CFCIFE Cloud Solutions is promising the UdaPeople users 99.99% uptime. We plan to achieve this by putting more time in our deployment process. We are going to implement a quick undo and return to production of your server to its working state immediately there is a failure. This will allow the sitge to be up at all time and also protect UdaPeople from losing customers due to downtime and in turn protect your revenue.

All these benefits above are few of our planned solution to common issues with using manual deployment of software deployment. We are open to more questions that may be lingering in your minds form the technical perspective and/or business perspective.

AYANTUNDE TOLU **FOR: UdaPeople**

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