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PROPOSED IMPLEMENTATION OF CONTINUOUS INTEGRATION AND CONTINUOUS DELIVERY (CI/CD) FOR DONAGON TECH. INTL.

INTRODUCTION

These days, code updates merged into project repositories are trusted by automated build and test steps triggered by CI/CD. This simplifies the entire application deployment process for your organization.

WHAT CONTINUOUS INTEGRATION AND CONTINUOUS DELIVERY (CI/CD) MEAN

Continuous Integration (CI) is a modern software development methodology in which incremental code changes are made reliably and regularly. It is often routine to merge all developers' working copies into a common repository. This method basically cleans up the code written by the developer and ensures that it meets all the functional and non-functional requirements of an enterprise product. The code is then quickly and easily deployed as part of the continuous delivery CD process. This is a software engineering process where products are typically delivered via automated deployment. Everything related to deploying artifacts is covered in this phase.

A CI/CD pipeline, as used in this context, is an automation that enables developers to push incremental code changes from their desktops to production environments quickly and reliably, with the ultimate goal of creating great deployable artifacts. It's a goal.

Below is an example of a CI/CD process.

CI processes:

- Developers working on applications see their code in private workspaces.
- Once they are done, they commit the modifications to the repository.
- The integration server continuously monitors the repository while checking for changes in progress.
- The integration server continuously builds the system before running the unit and integration tests.
- The server then releases all of the deployable artifacts for testing.

- The server then assigns a build tag to a certain version of the code it just generated before notifying the team successfully.

CD processes:

- Create the infrastructures
- Provision the servers
- Copy files
- Promote to Production
- Carry out Smoke test
- Roll backs

BUSINESS BENEFITS OF CI/CD

Below are examples of a CI/CD process.

- Increase sales by offering value-added new features whenever possible.
- Reduce costs by reducing infrastructure costs due to automation capabilities.
- Increase your revenue because the product can get to market faster than our existing manual
- Reduced costs as developers spend less time on new developer code issues.
- Avoid costs because there are fewer bugs and developers focus on testing and debugging.
- We can instantly rollback changes caused by failed deployments and revert back to the previous operating conditions to protect revenue by reducing downtime of a evolution.
- Avoid costs as it helps prevent embarrassing or costly security breaches.
- Reduce costs by reducing human error and facilitating faster deployment.

Thank you for your time and dedicated attention to this project as we look forward to

reliable answer.

Henry Anorue

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