



The Fundamentals and Benefits of CI/CD

IN A BID TO ACHIEVE, BUILD, AND DEPLOY AUTOMATION FOR CLOUD-BASED SOFTWARE PRODUCTS

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Experience error Isolation with Unit Testing.

- ▶ As the first line of testing before codes are integrated, testing each unit of a code is essential, as it helps to discover irregularities and bugs.
- ▶ This will result in fewer bugs in production and less time for testing, which translates to enabling the company to avoid the cost of having the release process advance to stages before it breaks (where cost here could be, but not limited to: time, human labor and money for provisioning infrastructure as the release process advances.)

Experience easy maintenance and updates of infrastructure using Infrastructure as Code

- ▶ Making use of infrastructure as code will enable us to eliminate human error and avoid unnecessary costs of provisioning infrastructures with unintended configurations.
- ▶ This allows us to be able to make the exact deployments thousand times over which ultimately gives rise to reduced deployment errors and deployment efficiency.
- ▶ By Automating Infrastructure creation, we experience fewer human errors, faster and more consistent deployments which translates to the company Avoiding costs.

Experience more reliable tests with automated Smoke Tests.

- ▶ Having essentially the last deliberate phase for testing a release project, will mean protecting revenue.
- ▶ This is because a reduced downtime from a deploy-related crash or major bug will not only protect the integrity of the company to its customers but will avoid downtime in the production service they use.

Experience reduced manual clean-up processes using IAC

- ▶ Having to automate Infrastructure Cleanup brings about reduced cost, as this will eliminate the laxity and inaccuracy humans may exhibit during project release phases. This essentially gives rise to less infrastructure costs from unused resources