

# CI/CD

- A better way to build and ship products to market

The core main Benefits of CI/CD is to achieve build and deploy automation within our company's products lifecycle and entrench a fast-to-market culture in the system which will inturn increase our customer satisfaction .

# Objectives

- The biggest reasons why the switch to CI/CD is required; to greatly speed up and immensely improve the overall Software Development Life cycle, which will greatly enhance code quality and marginally improve on reliability through applicable use of automation techniques and thereby leading to increased revenue for the organization.
- There is also the need to prevent embarrassing and costly security holes and vulnerabilities, which can cause severe loss in revenue for the organization.
- Avoiding huge costs incurable to the organization due to avoidable post-production failures.
- Protecting the revenue of the organization through early failure detection mechanisms offered by CI/CD and thereby ensuring defective products never leaves the production line; the company does not incur huge costs of payments for product recalls.

# What are the some benefits of CI/CD to the organization?

Enumerated below are some of the reasons why the organization needs to make the switch to CI/CD:

- There is always that human factor of negligence or missteps while handling systems using manual approach, but deploying CI/CD for Software Development would greatly allow us catch compile errors after continuously merging changes from different developers quickly and that translates to less Developer time spent on issues arising from new developer codes and hence reduced cost and overheads for the organization.
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- CI/CD helps us to catch Unit Test Failures on time, thereby leading to fewer or no bugs in the code production of Software Development lifecycle. This means that developers spend less time testing and that means avoiding unnecessary costs.
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- We will be able to avoid or prevent embarrassing and costly security holes by being able to detect security vulnerabilities early and thus again avoid unnecessary costs.
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- CI/CD brings about automation of the processes involved in Software Development lifecycle;

- This means less human error, faster deployments, and cost avoidance where applicable in many areas.
  - Fewer infrastructure costs from unused resources.
- New value-generating features will be released more quickly through faster, reliable and more frequent production deployments, which would lead to increased revenue for the organization.
- Employing CI/CD techniques leads to less time to market by deploying to production without manual checks, leading to increased revenue for the organization.
- Reduced downtime from a deployment-related crash or major bug in the code by performing automated Smoke tests and thus protecting our revenue.
- In case of developer mistakes, CI/CD pipelines have built-in automated rollback features that can be triggered by a job failure, hence leading to a quick return to production working state and that helps to protect the company's revenue.

# Summary

CI/CD techniques have quite a substantial amount of benefits for our organization in comparison to the negatives and I am hopeful that, with the stated benefits above, among many others, that will prompt you to make the right call for the immediate and long-term benefits for the organization.