BENEFITS OF CI/CD

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WHAT IS CI/CD

- CI and CD stand for continuous integration and continuous delivery/continuous deployment.

- It is a method to frequently deliver apps to customers by introducing automation into the stages of app development.

- CI/CD automates much of the manual human intervention traditionally needed to get new code from a commit into production such as build, test, and deploy, as well as infrastructure provisioning.

ADVANTAGES OF CI/CD

AUTOMATICALLY CATCH COMPILE ERRORS

- Whenever new code is added to the codebase, a CI/CD pipeline can automatically build the latest codebase.

- If the new codebase fails to build, the pipeline notifies the team immediately ensuring that problems are detected and fixed immediately

- This reduces costs for business because bugs that are detected early are less expensive to fix than those that are caught later

AUTOMATICALLY RUN TESTS

- Whenever new code is pushed to the codebase CI/CD pipeline automatically runs tests on the code

- This means runtime errors can be detected early and on all modifications of the code

- This avoids costs incurred by the business due to bugs in production since problems can be caught before the code is deployed to production environment

AUTOMATICALLY CHECK FOR VULNERABILITIES

- CI/CD pipeline can be configured to run security audits and static analysis of our code whenever there are changes.

- This allows for constant automated checks that would not be possible manually.

- This will save the business in costs due to security breaches and application downtime from attacks.

AUTOMATICALLY REVERT CHANGES ON FAILED DEPLOYMENTS

- Once an app has been deployed a CI/CD pipeline can run a smoke test to determine if the deployment was a success or not.

- If there was a problem, the pipeline will revert the changes and restore the last working deployment of the application.

- This save the business from lost revenue due to downtime.

AUTOMATICALLY DEPLOY TO PRODUCTION

- A CI/CD pipeline can be configured to automatically provision infrastructure and deploy an application when all checks and tests pass.

- This means that new features can be seamlessly introduced to customers with minimal manual intervention.

- This increases business revenue because features can be quickly delivered t customers thereby increasing customer satisfaction and acquisition.

THE END