CONTINOUS INTEGRATION/CONTINOUS DEPLOYMENT (ci/cd) BUSINESS PROPOSAL

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Continuous Integration, Continuous Delivery, and it's importance.

Continuous Integration is simply automating the process of building and testing code. CI allows developers to frequently merge code changes into a repository where the code is built and tested. Working codes from all the developers on a team are merged to a shared mainline several times a day. This opens creates many opportunities for triggering automatic pipe sequence, test running and static analysis of the code.

Continuous Deployment is a software engineering approach where value to the client is frequently delivered through automation. This concept eliminates the human factor and guards against unproven code in live software.

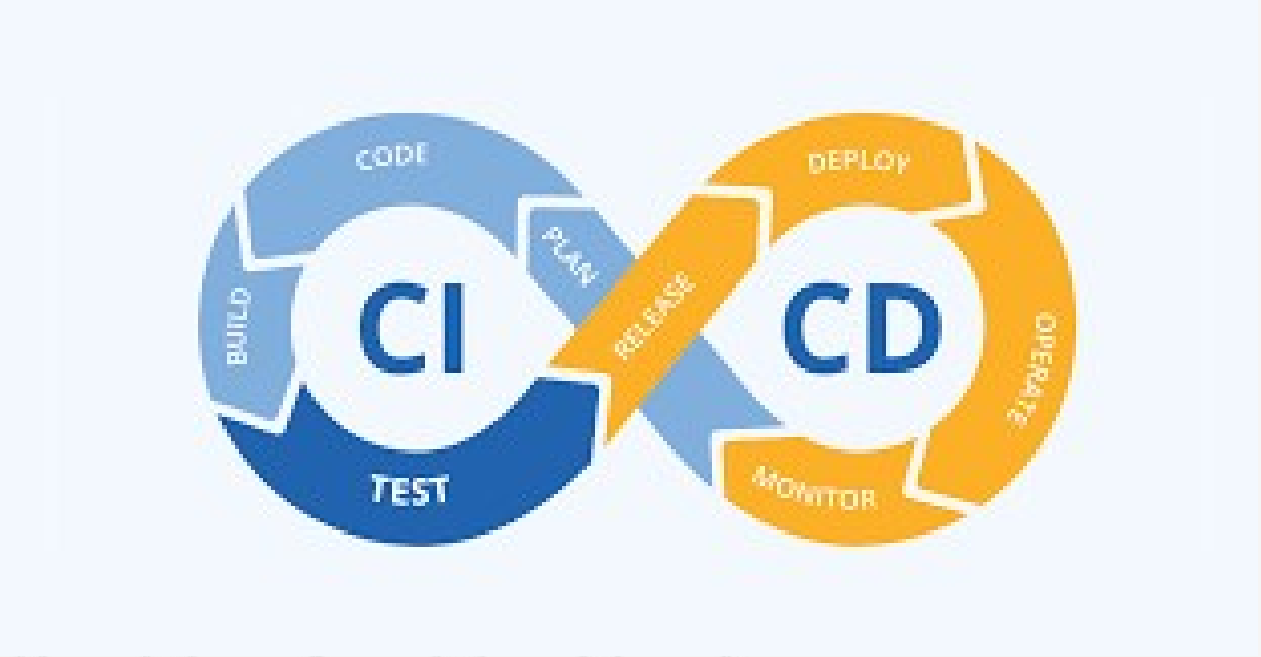
After code in the central repository is built and tested, deployment occurs, creating infrastructure automatically and running the code to continuously deliver value to the client as frequently as possible.

Why CI/CD

Automating CI means developers can catch errors easily and spend less time on issues, hence saving costs because of reduced man-hours

Automating Unit Tests in CI means developers can catch production-breaking bugs in development and have less production bugs. Costs can be saved with this strategy

Automating infrastructure deployment in CD means there will be less human error and faster deployment



Benefits of CI/CD

1. Catch Unit test Failures which helps to avoid cost

2. Automated Rollback triggered by a job failure would protect revenue because there would be a quick undo to return production to the last working state.

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3. Catching compile error helps to reduce cost as less time would be spent by developers on troubleshooting and more time on developing features

4. Faster and more frequent deployment would increase revenue as we have new value adding feature released to the market,

5. Smoke test is automated and this protects revenue as the developer would have reduced downtime from a bug