CI/CD

Business Impact and development improvement

- What Before CI/CD
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Before CI/CD

In traditional software development, engineers develop and merge and test the software in a huge repetitive steps, that usually takes weeks or more, May this process happens every few months, this step is very time-consuming.

And the development steps need someone dedicated for it to develop it or to fix any issue happened in that process, and that my coust the company a lot if you lose this person.

What is CI/CD?

CI/CD is a software development practice that combines development and operations teams and their day-to-day tasks.It applies automation to developing, testing, and delivering applications.

CI: Continuous integration: is the practice of automating the integration of code changes from multiple contributors into a single software project. It's a primary DevOps best practice, allowing developers to frequently merge code changes into a central repository where builds and tests then run. Automated tools are used to assert the new code's correctness before integration.

CD: Continuous deployment: is to eliminates the human safeguards against unproven code in live software. It should only be implemented when the development and IT teams rigorously adhere to production-ready development practices and thorough testing, and when they apply sophisticated, real-time monitoring in production to discover any issues with new releases.

benefits and business impact

- Reduce risk of finding and fixing bugs late in the development process which may cost the company losing money.
- Deliver faster, moving toward releasing features multiple times a day, which is increase the income.
- Increase confident, a good CI/CD strategy means developers get the freedom to focus on essential aspects of the project without worrying about other time-consuming, minuscule tasks. They can also work confidently, knowing that errors will be caught automatically and not right before deployment.

benefits and business impact

-   Boost Customer Satisfaction, since customer-first is the foolproof business approach, and a CI/CD pipeline follows this approach.
    Once a product is released, it monitors the initial few actions of any new customer and keeps track of the results. This helps decide the impression of the product on the user