Benefits of CI/CD for Cloud-Based Software Products

Fundamentals of CI/CD

- CI/CD is a two-step process that dramatically streamlines code development and delivery using the power of automation.
- CI makes developer tasks like source code integration and version control more efficient so software can get into production faster.
- CD automates software testing and deployment. Together, CI/CD is a powerful and unmatched engine of modern software development and it has untold benefits for businesses.

- One of the most important reasons why so many businesses implement a CI/CD pipeline is automation. The automation of the build, test, and deploy phases makes the life of a DevOps team much easier. It also significantly reduces the cost of software development.
- Respond to consumer needs as they evolve: Early feedback and usability issues can be addressed without the need for major time-consuming refactors to change the direction later on.

- Deliver faster with an accelerated release rate:
 Expensive developer resources aren't sitting idle
 when a successful CI/CD pipeline is in play. The
 faster code is released, the more new code can be
 developed, and then released.
- CI/CD pipelines: Automation reduces the cost: Not only do delayed releases impact the business from a cost, branding, public relations, and even a reputation perspective, they are deadly to businesses relying on speedy time-to-market.

- Fault detection & isolation: Developers can easily identify and then isolate code faults, dramatically improving productivity. You can limit potential breakdowns and other critical issues by isolating bugs and vulnerabilities before they damage the entire application.
- Loyal customer base: A stable operating environment and faster resolution to production requirements enable you to cement customer loyalty and create great experiences.

- Reduce Costs and Boost Profits: It standardizes deployment processes across all projects, and, done right, it enables teams to systematically test every change made to the source code.
- Simplified rollback: The ability to easily rollback code saves teams time, energy, and resources and leads to faster fixes of problem code.
- Continuous feedback: A unified CI/CD process, operating as part of a DevOps platform, gives everyone on the team including business stakeholders — a way to see what's happening, where it's happening, and what might be going wrong.