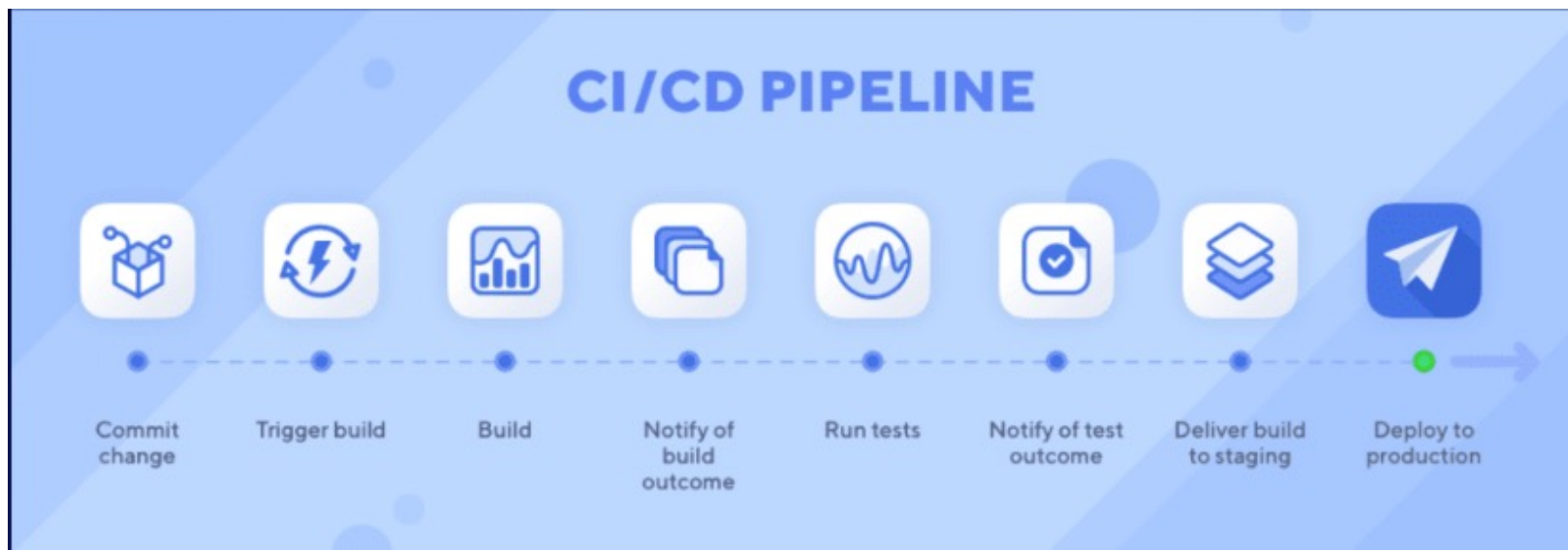


Fundamentals and Benefits of CI/CD to Achieve, Build,
and Deploy Automation for Cloud-Based Software
Products



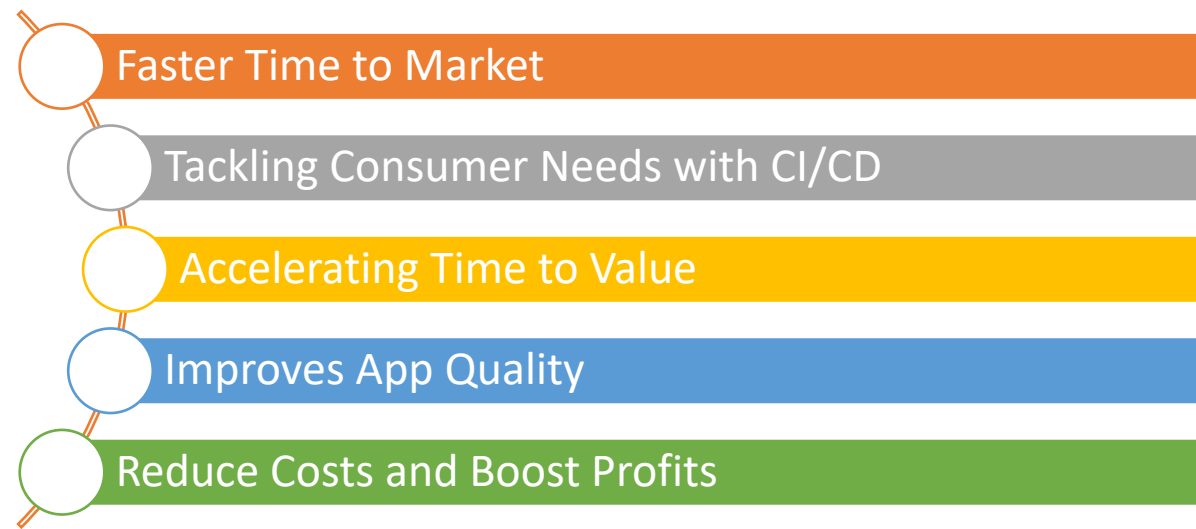
What is CI/CD ?

1. CI - Continuous Integration

The practice of regularly merging code changes from multiple developers into a shared repository. With CI, developers integrate their changes frequently, often multiple times a day.

2. CD - Continuous Deployment

Automatically deploying software changes to production or staging environments after they pass the necessary tests and quality checks. The goal is to make the deployment process fast, predictable, and efficient.



Benefits of CI/CD

1. Faster Time to Market

Allow teams to bring new products and features to market faster, immediately generating revenue from the deployed features, rather than waiting for the entire app to be completed and manually checked before launching

2. Tackling Consumer Needs

Teams can adapt to emerging trends, new markets, and changing expectations by updating applications and building and deploying new ones, giving them the flexibility to respond swiftly and effectively.

3. Accelerating Time to Value

enabling developers to explore new technologies and experiment with fresh concepts. It allows teams to concurrently test various features with real users and leverage their feedback to ensure continuous improvement

Benefits of CI/CD

4. Improves App Quality

With CI/CD, organizations no longer have to make a trade-off between prioritizing quality or speed. Instead, it provides the advantage of both aspects by fostering close collaboration between developers and operations teams. This seamless cooperation allows for quicker identification and resolution of issues during the early stages of the development lifecycle

5. Reduce Costs and Boost Profits

CI/CD is not only beneficial for the bottom line but also improves deployment processes across all projects. By systematically testing every change made to the source code, it significantly reduces the likelihood of bugs or errors slipping through. This results in lower development costs as teams spend less time on testing and bug fixes. Moreover, CI/CD enables faster delivery of high-quality products to the market, leading to increased profits and better customer satisfaction