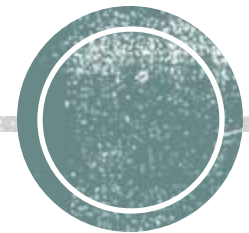


CI/CD BENEFITS

BY: ROAYA MOHSEN



Content

- **What is CI/CD ?**
- **What are the issues before CI/CD ?**
- **CI/CD pipeline process**
- **Benefit of CI/CD**
- **What are the challenges of using CI/CD**



What is CI/CD

CI/CD consist of 3 major concepts:

- **Continuous Integration (CI):** is the practice of automating the integration of code changes from multiple contributors into a single software project.
- **Continuous Delivery (CD):** is the discipline of being able to reliably release application changes (code) at any time. Beyond making sure your application passes automated tests which have all the configuration necessary to push it into production.
- **Continuous Deployment (CD):** is a strategy in software development where code changes to an application are released automatically into the production environment. This automation is driven by a series of predefined tests.



What are the issues before CI/CD

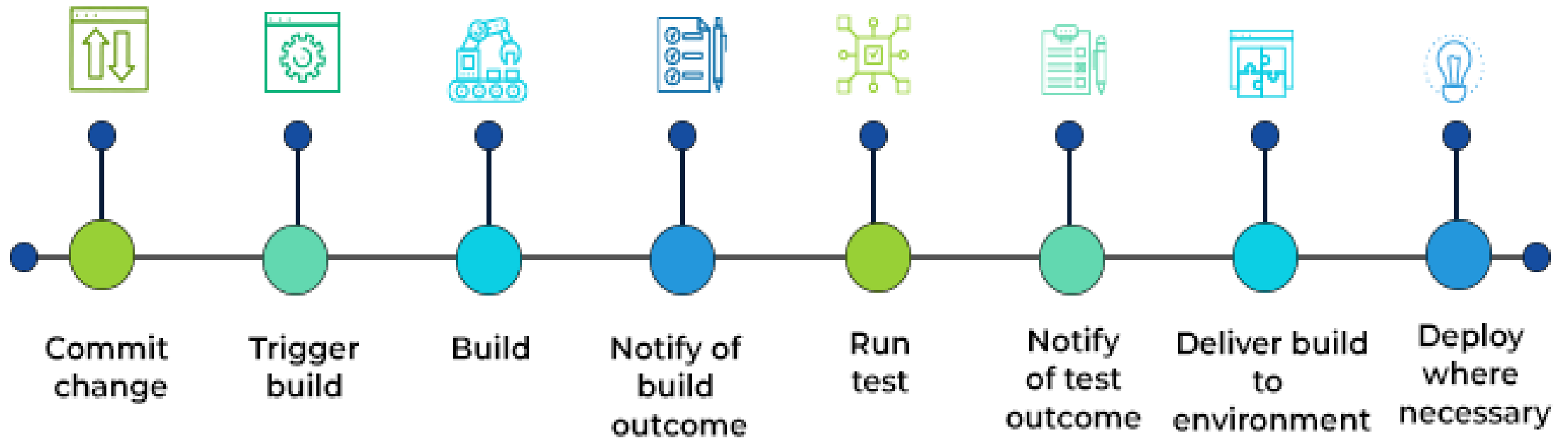
The manual release process is complex and take a lot of time

No smoke test or rollback mechanism

There is no time for quaity analysis



CI/CD PIPELINE





BENEFITS OF CI/CD

- **Faster product delivery**
- **Quick rollback if required**
- **Efficient testing and monitoring**
- **Cost-effectiveness**

What are the challenges of using CI/CD

- Establishing CI/CD comes with a high amount of initial cost and learning. At first sight this might seem overwhelming compared to current best practices
- Delivering CI/CD pipelines is not a one time effort, but requires constant support and maintenance as well as continuous development and improvement
- Even though there are some challenges, CI/CD will improve overall business processes and dramatically reduce costs on the long run

