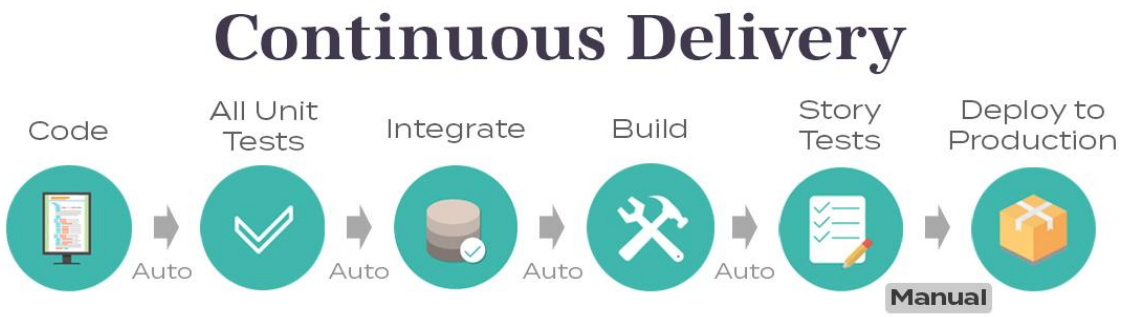
Continuous Delivery Approach

- Origin & meaning
- Udapeople App Development approach(CI-CD)
- Benefits of CI-CD
- Open Source Tools Required

- Origin & Definition

Origin

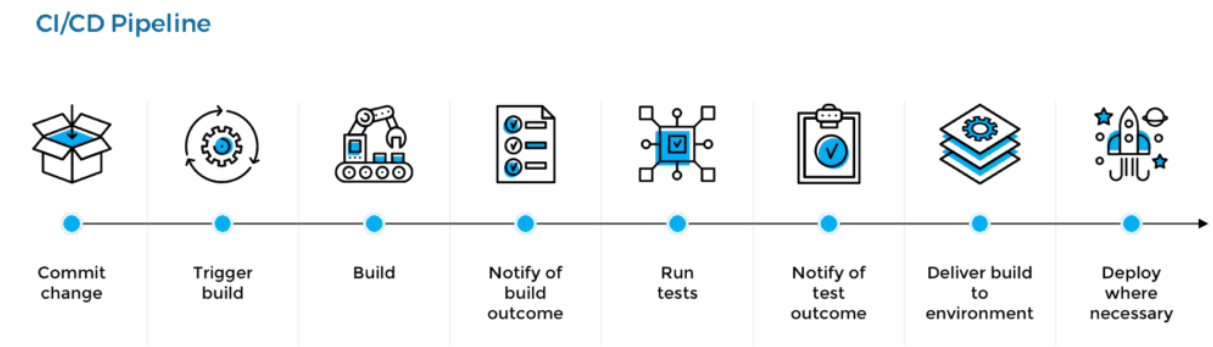
The DevOps movement started to coalesce some time between **2007** and **2008**, when IT operations and software development communities raised concerns about what they felt was a fatal level of dysfunction in the industry.



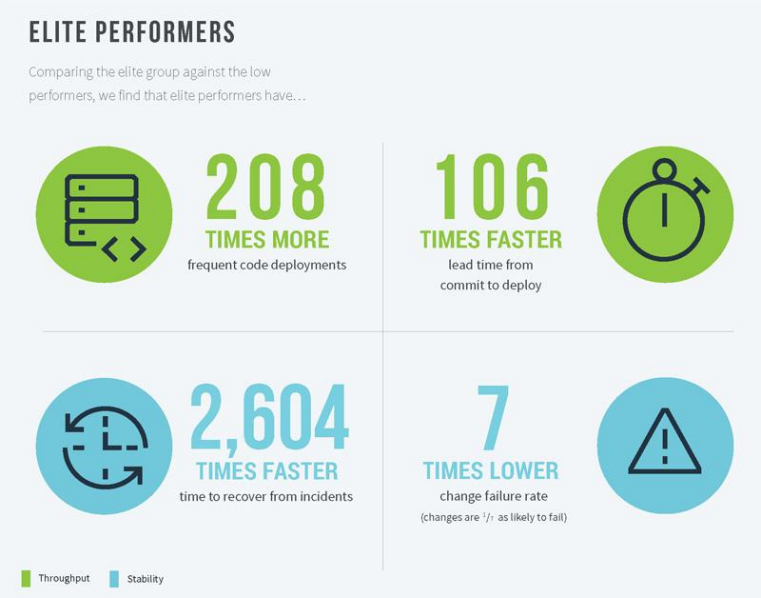
Definition

Continuous Delivery is an overarching engineering paradigm or mindset that informs and enhances the practices of Continuous Integration and Continuous Delivery in the process releasing value in short cycles

- Udapeople App Development approach(CI-CD)



- Benefits of CI-CD



I. Increased revenue from Udapeople app as time to market is reduced drastically from elimination of manual checks during deployment
II. Reduced cost for the organization as developers will spend much less time on issues arising from new developer code
III. Approach will be able to avoid cost as less bugs in production and less time in testing as Unit test failures will be caught early stages of Udapeople app development
IV. Additional security subsequently avoiding catastrophic or costly security breaches as security vulnerabilities are detected
V. Cost effective deployments as less human error experienced and Faster deployments
VI. Optimized costs due to reduced infrastructure costs from unused resources as Infrastructure cleanup will be automated
VII. Revenue will be safeguarded as downtimes are reduced from a deploy-related crash or major bug as Smoke/Detection tests and rollbacks will be automated

- Open Source Tools Required
    1. Circle CI - requires much less time to maintain and configure and is free for limited use, personal or business. Boasts of faster builds.
    2. Github - a code hosting platform for version control and collaboration.
    3. Prometheus -An open-source monitoring system with a dimensional data model, flexible query language, efficient time series database and modern alerting approach
    4. Amazon Web Services - For reliable, scalable, and inexpensive cloud computing services.