Adoption of CI/CD:
Continuous Delivery of Values for *UdaPeople*

How CI/CD can help UdaPeople achieve, build, and deploy automation for cloud-based software products

UdaPeople: Current State and Business Objectives

- Application Development involves teams from 2 different time zones
- Simultaneous development of 5 core app functionalities by the team divided into 3 groups
- Achieve efficient time/resource allocation for development and release cycles
- Remove communication gap between development and operations

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Introducing CI/CD

Continuous Integration (CI): Build -> Test -> Analyze
The practice of merging all developers' working copies to a shared mainline several times a day

Continuous Deployment (CD): Deploy -> Verify -> Promote
A software engineering approach in which the value is delivered frequently through automated deployments

CI + CD => Continuous Delivery
An engineering practice in which teams produce and release value in short cycles. It enhances existing delivery setups and strategies instead of fully replacing them. This means, it doesn't require costly rearrangement of existing teams to get started

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Benefits: CD/CD

Global version control => accessible and easily reversible release state **=> efficient teamwork and delivery across time zones and stakeholders**

Faster/frequent production deployments => frequent release of new value generating features **=> A) increased revenue B) motivation and increased team productivity**

Automating deployments to QA, Staging, Prod => more time to develop new features **=> increased revenue**

Automating infrastructure creation and cleanup => less human error => **A) avoid cost B) generate confidence**

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Benefits: CD/CD

Robust and fast development => easy maintenance and updates => **quality code coverage long-term**

Reliable Unit Tests and ability to isolate errors => Less bugs in production and less time in testing => **reduce / avoid cost**

Continuous Inspection and Detection of Security Vulnerabilities => **A) Increase accountability and transparency B) avoid related costs and fines**

Design and deliver with CI/CD pipelines => trackable development and release state over time => **remove communication gaps and generate more confidence amongst all teams involved**

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