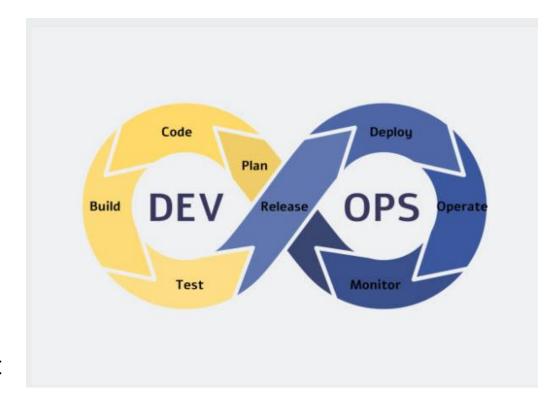
# INTRODUCING DEVOPS FOR UDAPEOPLE



### Introduction

DevOps is a software development approach that combines development (Dev) and operations (Ops) teams to streamline the software delivery process. It emphasizes collaboration, communication, and integration between these traditionally separate teams to improve efficiency and quality throughout the software development lifecycle.



## CI/CD: Streamlining Development

#### **Process**

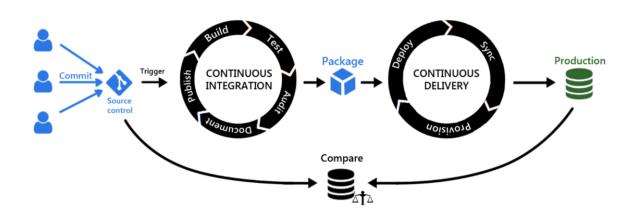
Continuous Integration (CI):
 Frequent integration of code changes into a shared repository to detect issues early.

and Deployment

Continuous Deployment (CD):
 Automated deployment of code to production environments after passing the necessary tests.

#### **Benefit**

- Faster time-to-market
- Early issue detection
- Increased development velocity



## CI/CD: Benefits

#### **Cost Reduction**

- Faster Time-to-Market: By automating the build, test, and deployment process, CI/CD reduces the time required to release new features or bug fixes. This efficiency translates into cost savings by optimizing resource allocation and minimizing manual effort.
- Elimination of Manual Errors: Automation reduces human error, preventing costly mistakes that can occur during manual code integration and deployment processes.

#### **Revenue Generation:**

- Rapid Feedback Loop: CI/CD facilitates a faster feedback loop between developers and end-users. This enables quicker iteration and enhancement of features, leading to a higher quality product that can attract more customers and generate increased revenue.
- Continuous Innovation: With shorter development cycles enabled by CI/CD, organizations can bring new features and improvements to the market faster. This agility allows businesses to stay competitive and seize revenue-generating opportunities ahead of competitors.

## Automated Alerting: Proactive System Monitoring

## Importance of monitoring

- Ensures proactive detection of performance issues, errors, and anomalies.
- Enables prompt resolution of critical incidents, reducing downtime and user/revenue impact.

## Benefits of automated alerting

- Real-time visibility
- Increased reliability
- Efficient troubleshooting

