

# WHY CI/CD?

**THE UDAPEOPLE PRODUCT**

BUILD TO DEPLOYMENT

# What is CI/CD

## ▶ CI (Continuous Integration)

- ▶ A fundamental practice where developers frequently merge copies of code to a single/main repository where automated build and tests are run.
- ▶ This process involves the act of making/modifying a features of the **UdaPeople product**.

## ▶ CD (Continuous Deployment)

- ▶ The practices where values are continuously released through automated deployments.
- ▶ This process can include the creating of infrastructure, performing smoke testing and rollbacks

## The Ultimate Goal:

**To ensure Continues Delivery for features and innovations to customers in short cycles.**

# BENEFITS OF CI/CD

S/N	Benefits	Definition	Value to the Business
1	Automate Infrastructure Creation	CI/CD can automate the creation of infrastructure for the Udapeople product thereby reducing human error, and promoting faster deployment	Avoid Cost to the business.
2	Deploy to Production Without Manual Checks	This can reduce the time to perform manual checks on developed product	Less time to market
3	Automated Smoke Tests	Smoke test performed at the stage of deployment can reduce downtime from a deployment or software bug	Protect business revenue.
4	Automated Rollback Triggered by Job Failure	Undo deployment to return the product environment to working state.	Protect business revenue.
5	Catch Unit Test Failures	Unit test carried out at stage of deployment can reduce bugs in production. Thereby saving cost for the business due to a bug.	Avoid cost.

# BENEFITS OF CI/CD Cont.

S/N	Benefits	Definition	Value to the Business
6	Faster and More Frequent Production Deployments	CI/CD practice makes new value-generating features released more quickly. Utilizing a CI/CD approach also keeps the Udapeople product up-to-date with the latest technology	Increase revenue to the business as features are instantly available to users to utilize.
7	Faster Mean Time To Resolution (MTTR)	CI/CD reduces the MTTR because the code changes are smaller and fault isolations are easier to detect. This can help the business keep failures to a minimum and quickly recovers from failures.	Avoid cost.



THANK YOU