# WHY WE SHOULD Adop CI/CD Pipeline at UdaPeople

A Proposal by Giwa Yusuf, Snr DevOps Engr.

# Current State

At Udapeople, In that last one month we have recorded a high amount of botched deployment thereby rollbacks which has led to a significant drop in our monthly customer reviews.

This is because our development and deployment strategies are inconsistent and unpredictable.

Due to these issues we are forced to postpone some feature having a negative impact on projected revenue.

# Pertinent Issues of Current system

**The engineering team has narrowed some major economic impact we have had in the last months.**

- ➔ **Investing more times in a release cycle than delivering values**
  This translates to reduction of  revenue generated
- ➔ **Friction between Ops and Development**
  This translates in increase in cost of production
- ➔ **Schedule slips due to deployment**
  This translates to reduction of revenue generated
- ➔ **Loss of code during merges**
  This translates to increase in cost of production
- ➔ **Recurring failure of tests**
  This directly translates to loss of revenue

# Fundamentals of CI/CD

**The following are the fundamentals of the proposed pipeline**

## ➔ Continuous integration

- Compile codes
- Perform static analysis
- Store high quality Artifacts
- Run unit tests
- Run dependency and vulnerability test

## ➔ Continuous Deployment

- Creating infrastructure
- Copying files
- Smoke testing
- Provisioning servers
- Promoting to production
- Rollbacks

# Important qualities of the new Pipeline

**We will integrate the following to help us optimize the workflow.**

- ➔ **Failing fasts**
  This translates to reducing cost of production
- ➔ **Quality metrics**
  This helps us track pipeline progress and  translates to increase in revenue
- ➔ **Pipeline lock**
  This helps avoid breakage in the pipeline and translates to avoiding cost
- ➔ **Automating configuration**
  This helps ensure optimization and translates to increase increase in revenue

# What we will achieve:

Reducing cost of production by automating repetitive tasks.

Avoiding unnecessary cost of production due to recurring errors.

Increasing revenue by optimizing delivery process.