# WHY WE SHOULD USE CI/CD FOR UDAPEOPLE

# Our current software delivery process

- Investing time in building and deploying many features at once
- Manual approval of pull requests sometimes resulting in hours spent in fixing merge conflicts
- Manual testing of features
- Manual deployment of features
- Only few senior developers are able to deploy new features to production
- If there are issues on production, these issues are manually reversed and it takes hours for this reversal to be made and sometimes resulting in system downtime and errors that needs extra fixing

# WHY CI/CD

With CI/CD we can enhance the current approach we use in developing, deploying and releasing new software features

CI/CD will focus primarily on how software is delivered

CI/CD will also make sure we produce and release value at short cycles to meet the needs and requirements of Udapeople

There will be a complete shift from manually deployments to automation and this will make the software development and deployment process less error prone

# WHY CI/CD (continued)

CI/CD will ensure that quality codes are written by developers and unit tests are available to ensure the codes work as intended to

It will ensure discipline and set coding standards amongst the developers. Developers will need to level up their skills and this will ultimately reflect in the quality of code written and by extension, the quality of software released

CI/CD will come at a cost nonetheless but we believe it's a cost worth paying for to ensure we deliver value for forward progress

# Benefits of CI/CD to the business(Udapeople)

- Faster and more frequent production deployments: The more value generated features are quickly released, the more users will use and embrace the features and this will result in more revenue for the business
- CI/CD is all about automation. Tests will be automated and this will prevent and catch errors that some manual processes may not catch or take a long time to notice. This will ensure reduced downtime from potential bugs and save a lot of cost for the business
- Again, a byproduct of automation is running infrastructure cleanup to free unused resources and in the process reducing and saving costs that may have been spent on unused resources
- Because deployments are released frequently, tested very well and with little to no errors, it builds trust within the team and leads to customer satisfaction. This greatly generates a continued revenue income stream for the business