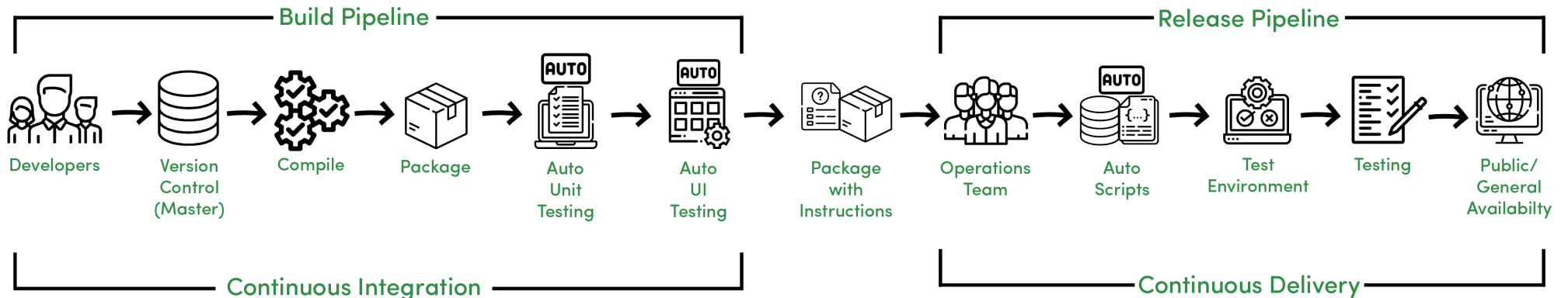


## OVERCOMING DEVELOPMENT AND DEPLOYMENT CHALLENGES FOR UDAPEOPLE

How do we ensure seamless building,  
testing and delivery processes to end  
users and make it continuously repeatable?

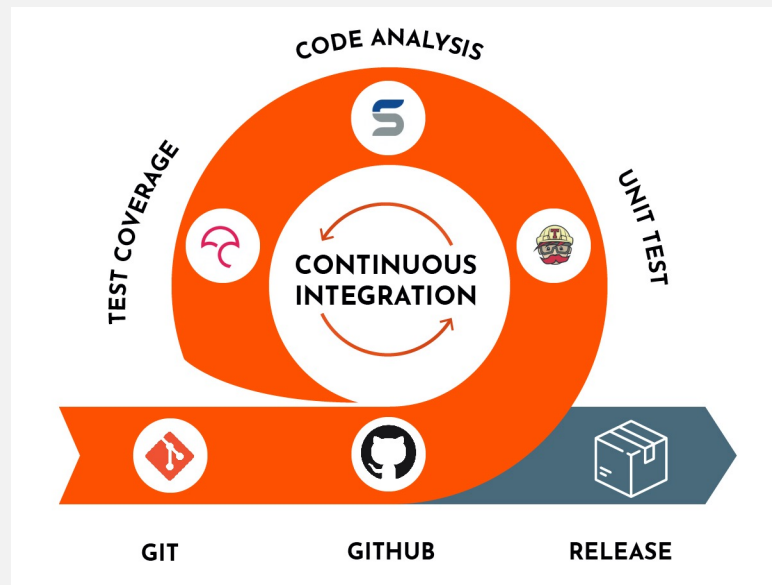
As a result, faster revenue generation and  
profit margin improvement?



## INTRODUCING CONTINUOUS INTEGRATION/ CONTINUOUS DELIVERY> CI/CD

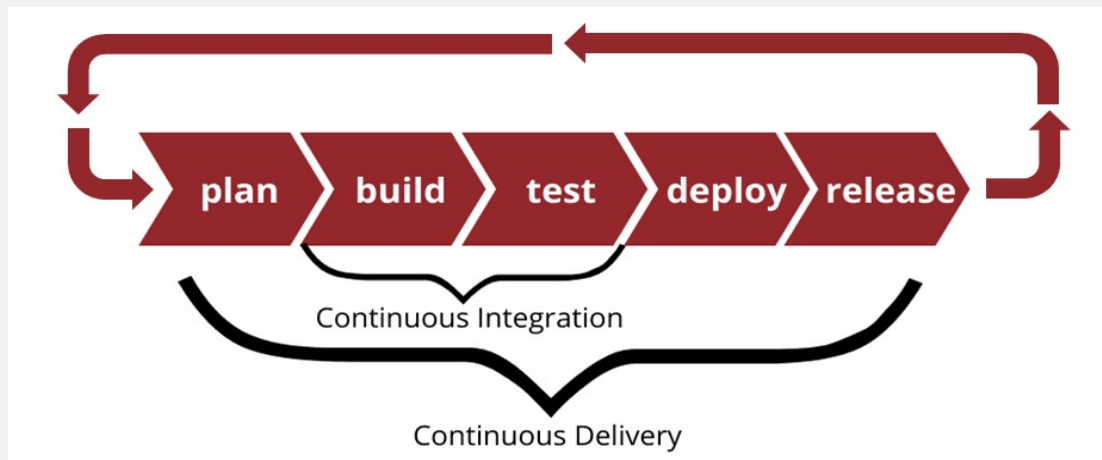
CI/CD is the combined practices of continuous integration and continuous delivery. CI/CD bridges the gaps between development and operation activities and teams by enforcing automation in building, testing and deployment of applications.

# CONTINUOUS INTEGRATION



- CI refers to processes in product development phase:
- Versioning and merge code
- Compile code
- Perform unit test and analysis,
- Dependency vulnerability testing store product reports by automation continuously, to streamline high-quality product development process

# CONTINUOUS DELIVERY



CD automates product delivery and updates to customers continuously, without the need for human intervention, creating infrastructure by code.

This includes:

- Provision servers and configure them,
- Deploy the application on the server,
- Run smoke tests,
- Publish or update the application,
- Rollback to previous version when deliveries fails,
- Monitor behaviours such as memory usage, service crash, disk space usage.

## BENEFITS OF CI/CD

- Smaller code changes are simpler with fewer faults, thus faults are easily isolated and identified.
- Mean time to resolution (MTTR) is shorter due to smaller code changes and quicker fault identification.
- More testable due to smaller code changes, as a result more accurate tests.
- Reduced downtime from deployment related crashes or bugs
- Quick rollback in case of failure
- Fast product improvement from accurate tests, hence fast new feature introductions
- New value-generating features are released quicker.
- Release cycles are shorter with targeted releases.
- Less infrastructure costs from unused resources.
- More available for end-user feedback leads to better and faster usability improvements.
- All development and deployment improvements leads to less time to market.
- Ultimately all of the above leads faster profit increment.