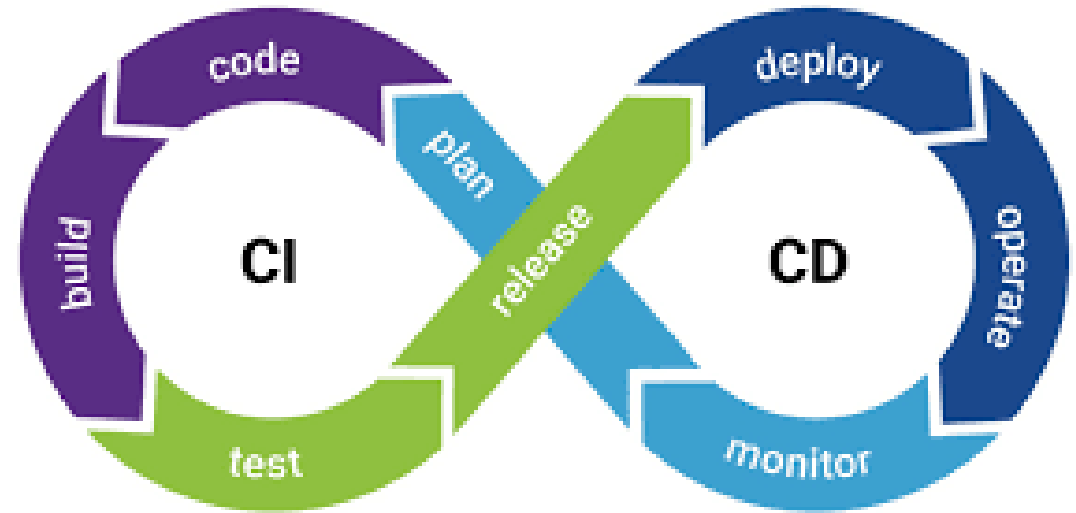


# Reasons to adopt CI/CD for UdaPeople project





# UdaPeople project requirements

We are so excited to start UdaPeople project with you and are confident to help Human Resources to take care of their people!

We know that people are so valuable resources which are complex to manage and to take care of. **Even if people are strong, with experience and flexible they are also exigent and have different needs that furthermore change in time and so not easily predictable.**

Those conditions and requirements are not specific to UdaPeople project but are common to a lot of type of projects.



# Challenges behind the needs

The requirement is so to bring value to the final user in a safely, timely and flexible manner.

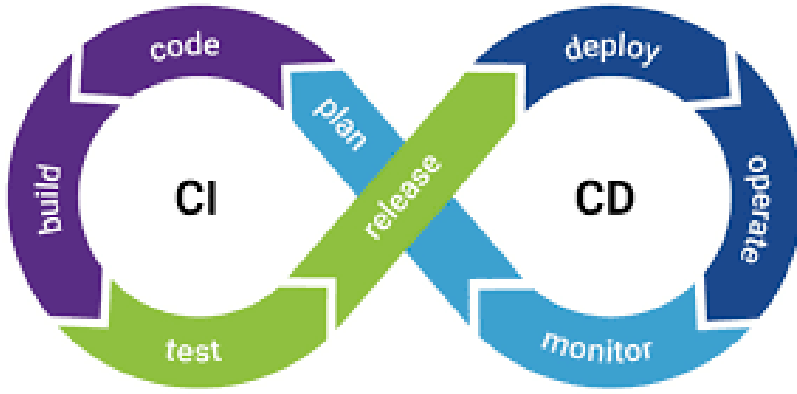
**This requires software development lyfe-cycles and relative challenges.**

**At each cycle, application coding, Review, compilation, Merge, Unit Test, Integration test, Client test, security vulnerabilities detection, infrastructure creation, Deployment, Smoke test in production, Production Promotion and rollback in case of failure in any steps are activities that usually require different skilled teams, resources, time, costs to be managed.**

**Done by humans all those activities are error prone and require non negligible costs to**

# DevOps answer to challenges

DevOps automates all the steps necessary to bring Developers new codes to production environment, granting every foreseen step each time. In such way it procures the following benefit:



## Costs Reduction:

- Catching compile errors after merge it **reduces developers time on issues for new code**
- Removing non used resources automatically it **reduces costs for unused resources**



## Costs Avoidance:

- Catching unit test failures it **reduces bugs in production and time testing**
- Detecting security Vulnerabilities it **prevent embarassing or costly security holes**
- Automating infrastructures creation it **reduces human errors and enable faster deployment**



## Revenue Increase:

- Enabling faster and more frequent Production deployment it permits **new value-generating features released more quickly**
- Deploying to production without manual check it **reduces the time to market**



## Revenue Protection:

- Automating smoke tests it **reduces the downtime from a deploy-related crash or major bugs**
- Automating rollback triggered by job failure it **permits teh quick undo to return production to working state**





**208x**  
**MORE**  
frequent code  
deployments

**106x**  
**FASTER**  
lead time from  
commit to deploy

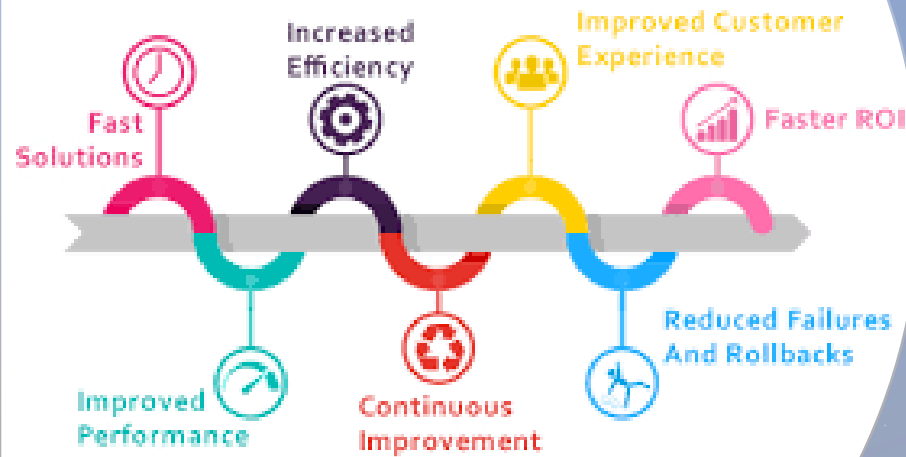


**2,604x**  
**FASTER**  
time to recover  
from incidents

**7x**  
**LOWER**  
change failure rate  
(changes are 1/7 as likely to fail)



## Business Benefits of DevOps



DevOps permits a higher time to market response, in a safer manner, with more frequent releases, lower online failures and rollbacks, with continuous improvements and thus increases End-User Experience.

With those records we expect to satisfy every needs relative to UdaPeople care in a continuously, timely, safely and less costly manner

# DevOps Records