# CI / CD for UdaPeople product.

Why we need CI / CD (continuous integration / continuous deployment).

## Reduce costs.

#### How CI / CD helps to reduce costs for our UdaPeople product

- Compile Errors will be reduced after merging our code from several developers -> we will spend less time and money on issues for new developer code.
- Finding errors earlier in the development process -> we will use less time and money in identifying errors in and testing for our product
- CI / CD gives us the opportunity to reduce infrastructure cost by automating infrastructure cleanup and therefore

## Avoid additional costs.

#### How CI / CD helps to avoid additional costs for infrastructure.

- Less bugs in our product and less time for testing with usage of automated and frequent / continuous unit tests avoids costs for testing and fixing
- Automated testing of security vulnerabilities prevents us from embarrassing or costly security holes
- Automating Infrastructure Creation leads to less manual errors and faster deployments avoiding costs for human interaction

### Increase value

#### How CI / CD helps to increase the value of the UdaPeople product

- Faster and more frequent production deployments aids in releasing new value-generating features more quickly and therefore increasing product value
- Deploy to production without manual checks using CI / CD reduces our time to market and helps to deliver feature more quickly
- Having confidence in our product development and delivery process makes it much easier to deliver new features without having to take a big risk of unstable services

## Protect value

#### How CI / CD helps to protect the value of the UdaPeople product

- Automated smoke tests reduces the downtime of our services (e.g. from a deploy related crash or a major bug)
- Automated rollbacks (triggered from a malicious deployment) can be quickly performed and therefore don't harm our customer
- Our blue / green deployment strategy gives us the opportunity to introduce new feature in a safe manner so we do not risk crashing our current valuable services of our customers. We can test new features without harming our customers.