



# CICD

Benefits of a migration to CICD



# CICD Definition

- Purpose of CICD is to automate the process of integration and deployment to have a robust process that can run without any interference from the developers, so we can save time and cost.
- Aims to focus more on development instead of operations, so we detect issues early and take great actions based on the alerts.



# CICD Stages

- Build & Integration testing: build source code of different developers and check for integration issues
- Static analysis: run code smell checks to measure code quality and to avoid bad code and possible bugs in an early stage
- Unit testing: execute unit tests to detect issues with code coverage
- Deploy: deploy the whole application automatically without interactions from the developer what saves time and makes the whole process more tolerant against human errors
- Smoke testing: automatically test the deployed version and release it to production or do a automatic rollback with cleanup



# CICD Benefits

- Saves developers time and cost so they can focus on business features, code and code quality
- Continuous integration detects failures between different modules in an early stage and automatically inform the developer about problems if there are any. There is no need for any manual interaction for the developer if there are no problems during integration testing
- Deliver business features faster and in short-cycles
- Continuous deployment automates large deployments with rollbacks which removes the human error when doing large deployments, saves a lot of developer time and prevents downtime in production systems
- Detect issues in an early stage so bugs do not get deployed into production
- By detecting issues early and get only working versions to production, customers will not be affected and will be satisfied by the work so the customer grows trust into the development team

