OVERVIEW

➤ What CI & CD actually are?

➤ Why CI/CD ? current pain points.

➤ How we could benefit from CI/CD? business value.

➤ CI/CD the challenges.

WHAT CI & CD ACTUALLY ARE?

▶ CI & CD stands for continuous integration, continuous delivery and continuous deployment.

▶ **What is Continuous Integration (CI)?**

It is a practice of integrating code form multiple developers into a central repository multiple times per day.

▶ **What is Continuous Delivery (CD)?**

Continuous delivery is an extension of CI where code changes are automatically prepared (lint, compile, test, scan and smoke) for a release to production.

▶ **What is Continuous Deployment (CD)?**

Continuous deployment goes one step further than continuous delivery, every change that passes all stages of production pipeline is released without any human intervention.

Why CI/CD ? current pain points.

➤ Manual release processes always a painful processes with a lot of errors to handle, time consume and poor quality.

➤ Time consumed in linting, compiling, testing, smoke test and deployment is a waste and delay delivery of applications.

➤ Deployments are pretty complex. Only a chosen few experts are able to understand the whole process and tons of hand crafted helper scripts. No smoke tests and rollback mechanisms.

➤ Late feedbacks from customers leads to low quality bug fixes.

➤ The overall process cost is very high.

➤ With Manual release process, downtime of application increase as you go for deploy.

How we could benefit from CI/CD? business value.

- ✓ CI/CD help to accelerate development workflows, improve software quality, address security vulnerabilities faster and increase team's overall efficiency by removing manual checkpoints, improving code quality, reducing development risks, increasing productivity and creating a more collaborative environment. It also makes engineering teams more productive as it allows them to focus on solving problems rather than having to work with large amounts of legacy systems.

- ✓ CI/CD process reduces the needs of a lot of hand crafted scripts and experts to handle.

- ✓ With automated tests and checks CI/CD benefits include lower deployment costs, faster feedback loops and reduced risk of introducing defects.

- ✓ CI/CD reduces the downtime with Blue-Green Deployment strategy.

CI/CD the challenges.

- ❖ CI/CD is a powerful way to deploy software, but it can be challenging to implement in some organizations.

- ❖ Implementing CI/CD needs skilled people to develop and maintain this process.

- ❖ Effective CI/CD requires that teams have seamless and easy access to a wide range of tools and resources. Documenting those tools, including ones that are homegrown, is a great way to empower team members with the ability to make smarter, faster decisions.

THANK YOU