CI/CD

CICD: continuous integration and continuous delivery/continuous deployment

- Before CICD we do every things like deploy, test, build, with our hands
- We have some error by mistakes from developers or testers team like some one forget (,) in the end of code we still review the code till find it the write it to run code correctly.
- The previous steps to find (,) take along time. What happen when it repeated ??
- CICD reduce human error cause we create template, changes every thing and every thing is ok
 then we can use this commands again without review again.
- Proposal of this is reduce time when we create new version of production this is small features of CICD technology.

Fundamental of CICD:

- **Continuous Integration:** practice of merge all developers' works that made several time a day. Make developers works daily at least so come little mistakes that can easily solve. that have a build server to do our works.
- **Continuous deployment:** It's the process of "Moving" the artifact (process that come from CI process) from the shelf to the spotlight. Here we can choose from more strategy to produce the production. Here we can work without approval.
- **Continuous delivery**: An engineering practice in which teams produce and release value in short cycles. Here we needed approval.

The CI/CD Pipeline



Benefits of CI/CD:

Reduce Cost :

Any company need to reduce cost with high performance. CICD can do that simply through automation. We present some of benefits of CICD with technical language & translate this language to business language:

Technical Language	Business language	Value
Catch Errors After Merge	Less developer time on issues from new developer code	Reduce Cost
Detect Security Vulnerabilities	avoid costly security holes	Avoid Cost
Automate Infrastructure Creation	Less human error like forget some command or forget attach to security groups, Faster deployments	Avoid Cost
Deploy to Production Without Manual Checks	Less time to market	Increase Revenue

Benefits of CI/CD:

Technical Language	Business language	Value
Automated Smoke Tests	Reduced downtime from a deploy- related	Protect Revenue
Automated Rollback Triggered by Job Failure	Quick undo to return production to working state	Protect Revenue

- After I present some of features of CICD, production can't kick off without quality standards that we put it to production.
- When we take approval from stakeholder and decided to kick off production we have a lot of way to deployment strategy like Big-Bang, Blue Green, Canary.
- We have a lot of tools to so we can choice applicable to you .
- SO:
 - CICD is present and future .