

Ci - CD Proposal

After thorough review for the existing process , our team has identified the below challenges which can be improved with the introduction of CI/CD pipelines

Challenges

- 1) Current deployment takes several takes hence leading to longer time to market
- 2) On-prem infrastructure costing more as several un-used services continues to be live
- 3) Scalability issue as its is difficult to extend the resources as per need
- 4) Longer feedback as there are very few automated tests in the existing pipeline

Proposed Solution

1) **Enable Continuous Integration**

Description

Integrate the CI Tools with current code repository and it should check whether there the code is build successfully upon each merge

Benefits

Faster Feedback and confidence that any new check-in doesn't break the code

2) **Setup the unit testing code coverage criteria**

Description

Add certain rules such as minimal unit testing pass percentage and sonar cube code coverage to ensure right coverage

Benefits

High quality code and minimal defect leakage

3) **Setup infrastructure as Code**

Description

The infrastructure will be setup as part of the code and with every new build, a new scalable and reliable environment will be setup

Benefits

High scalable cost effective infrastructure

4) **Automated tests as part of CI/CD**

Description

Create automated tests to verify the application after deployment and ensure the high quality build is promoted to next phase

Benefits

High Quality Product with minimal defect leakage

5) **Establish Continuous deployment and Delivery pipelines**

Description

Promote the build to production environment upon successful steps with minimal manual intervention

Benefits

Quicker market delivery time and quicker feedback

6) **Monitoring**

Description

Implement the production monitoring to analyse the system behaviour and resource utilisation

Benefits

Capturing several stats from the production to understand the behaviour and resource utilization