Fundamentals and Benefits of CI?CD

Udacity- Devops nanodegree

Outline

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- ❖ Benefits
- ❖ How to apply

Introduction

- A best practice for devops teams is CI/CD. It is also an agile methodology best practice.

- Integration and delivery are automated.

- Software development teams can use CI/CD to concentrate more on fulfilling business obligations,while assuring software quality and security.

Benefits

◈ Decrease the chance of having human errors by: automating everything the developer can do(other than coding new features), removing manual steps that will be forgotten on the next deployment and will cause errors, no more modifying environment settings in the GUI.

◈ Reduce risks by: catch the errors early so we won't deal with it after errors appear in production env, improve code and build quality, increase the confidence level as the deployment script is tested many times

◈ Reduce Costs by: decreasing time taken for deployment, solve errors quickly, fast and easy rollbacks, easy to release minor versions with small updates so customer can feel the progress of devlopment.

How to apply

◈ Releases must be repeatable and everything should be reproducible.

◈ Everything should be automated and no manual editing

◈ Use version control to keep track of all changes.

◈ Measure and track the quality continuously.