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Fundamentals and Benefits of CI/CD

AUTOMATED BUILD AND DEPLOYMENT



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The Big Picture

Every company needs to deliver value to its clients at the fastest time possible, providing client satisfaction and through quick software delivery.

Continuous Integration, Deployment, and Delivery will make this a reality through automation.

What exactly is CI/CD ?

Let us find out !



Continuous Integration

Continuous integration deals with merging all developers' working copies to shared mainline several times a day. The process of making scalable, sustainable and bug-free applications.

Continuous integration mainly consists of these phases: Compilation, Unit testing, Static analysis, Vulnerability testing and artifact storage

Benefits

Continuous Integration reduces development costs by minimizing time spent on issues relating to new code.

It also avoids unplanned costs by reducing production bugs and time taken in performing unit tests.

Embarrassing security loop-holes are also detected and prevented right on time





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Continuous Deployment

Continuous Deployment is a software engineering approach in which the value is delivered frequently through automated deployments.

It's the process of "Moving" the artifact/Source code from the shelf to the limelight for the end-user to interact with.

Phases in CD include infrastructure creation, server provisioning, copying application source code, promotion, verification, and most importantly rollbacks in case of any error encountered.

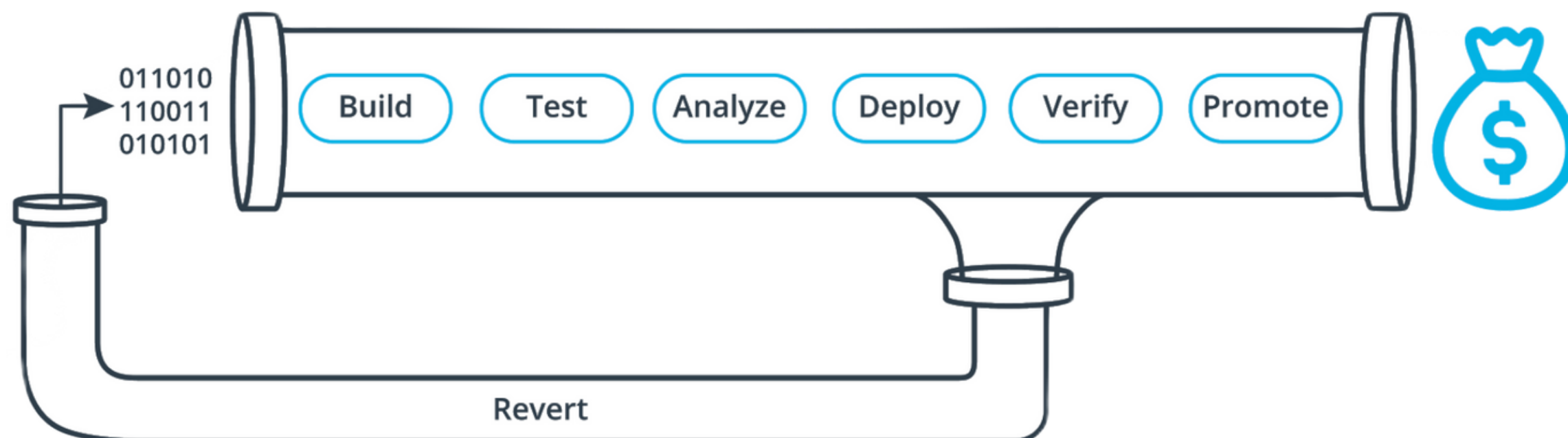
Benefits

Continuous deployment avoids cost by providing faster-automated deployments and less human error when creating and setting up infrastructure. It increases revenue by providing value for clients from quickly released new features.

Reduction of cost by removing unused resources and protection of revenue through automatic rollbacks and verification



Continuous Delivery



CI/CD PIPELINE

Continuous delivery is an engineering practice in which teams produce and release value in short cycles. Providing value for the client in short cycles leads to customer satisfaction and good business relationships.

Continuous Integration and Delivery also helps us as an organization increase revenue and cut costs through automated testing, builds, deployment and bug detection. With the numerous advantages of Ci/CD, I strongly believe it should be implemented for both current and future projects



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Thank You