DEVELOPMENT OF UDAPEOPLE SOFWARE PRODUCT

—

Loveday Onyeanula

OBJECTIVES

- Fundamentals and Benefits of CI/CD to Achieve,
- Build, and Deploy Automation for Cloud-Based Software Products

FUNDAMENTALS OF CI/CD

Continuous Integration(CI) is the practice of merging all developer's working copies to a shared mainline several times a day. CI handles evth that has to do with code.

Continuous Deployment (CD) A software engineering approach in which the value is delivered frequently through automated deployments. Everything related to deploying the artifact fits here.

The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making".

Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact!

Some common CI-related phases might include:
- Compile
- Unit Test
- Static Analysis
- Dependency vulnerability testing
- Store artifact

A software engineering approach in which the value is delivered frequently through automated deployments.

Everything related to deploying the artifact autonomously fits here. It's the process of "Moving" the artifact from the shelf to the spotlight without human intervention.

Some common CD-related phases might include:
- Creating and configuring infrastructure
- Promoting to production
- Smoke Testing (verification)
- Rollbacks in case if any failure
-

BENEFITS OF CI/CD

For the development of our UdaPeople Product, we would need to adopt the CI/CD framework. This will not only provide a speedy delivery of the product to our clients, but the product will be free from a deploy-related crash or a major bug which could have led to dissatisfaction from our customers and clients.

We will be focusing on the following 4 benefits of CI/CD pipelining and explain the benefits we are sure to accomplish if CI/CD is approved;

- Increased Revenue
- Protect Revenue
- Reduce Cost
- Avoid Cost
- round the house!
-

Some of the other benefits may include:

- **Automate Infrastructure Creation:**

  This will help to avoid cost by providing less human error, which means faster deployments

- **Faster and More Frequent Production Deployments:**

  This would help to increase revenue by releasing new value-generating features more quickly

- **Automated Smoke Tests:**

  This would help protect revenue by reducing downtime from a deploy-related crash or a major bug

- **Detect Security Vulnerabilities:**

  This would help to avoid cost by preventing embarrassing or costly security holes.

- **Deploy to Production Without Manual Checks:**

  This would help to increase revenue by making features take less time to market.

Thank you...