UDACITY DEVOPS - CI/CD

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BIG PICTURE













Code Review

Merge/ Integrate

Compile/Lint

Run Unit Tests

Run Integration Tests







Deploy to Test Environment



Team Test



Deploy to Client Test Environment



Client Test



Create Infrastructure



Security

Configure Infrastructure



Deploy to Production



Smoke Test in Production



Rollbacks



Promoting to Production



Celebration

CI/CD BENEFITS

- I. Faster time to market
- 2. Improved software quality
- 3. More efficient software development process
- 4. Better collaboration and communication between teams
- 5. Increased productivity and efficiency

CI/CD BENEFITS

- I. Greater visibility and control over the software development process
- 2. Reduced risk of downtime or service disruptions
- 3. Improved security and compliance
- 4. Cost savings and cost optimization
- 5. Continuous improvement and innovation

CI/CD REVENUE BENEFITS

- I. Faster Time to Market: By enabling organizations to release software updates more quickly and frequently, CI/CD can help organizations get new features and capabilities to market faster, potentially increasing revenue and market share.
- 2. Improved Software Quality: By automating testing and review processes, CI/CD can help organizations release higher quality software that is less likely to cause issues or disruptions for customers, resulting in greater customer satisfaction and loyalty.
- 3. Increased Innovation: CI/CD can help organizations innovate more quickly by enabling them to test and release new ideas and features more quickly, potentially enabling them to develop new revenue streams or business models.
- 4. Greater Efficiency and Productivity: By automating many tasks associated with software development, CI/CD can help organizations improve efficiency and productivity, enabling them to develop and release software more quickly and at a lower cost.
- 5. Better Customer Experience: By releasing high-quality software updates more frequently, organizations can provide a better customer experience, which can lead to increased revenue and customer loyalty.
- 6. Increased Agility: CI/CD can help organizations be more agile and responsive to changing market conditions and customer needs, potentially enabling them to adapt more quickly and capture new revenue opportunities.

CI/CD COST BENEFITS

- I. Reduced Rework and Errors: By automating many tasks associated with software development, CI/CD can help organizations reduce the potential for errors and rework, which can be costly in terms of time and resources.
- 2. Reduced Time to Market: By enabling organizations to release software updates more quickly and frequently, CI/CD can help organizations reduce the time it takes to get new features and capabilities to market, potentially reducing costs associated with delayed releases.
- 3. Improved Efficiency and Productivity: CI/CD can help organizations improve efficiency and productivity by automating many tasks associated with software development, reducing the need for manual intervention and enabling teams to focus on more strategic tasks.
- 4. Better Resource Utilization: CI/CD can help organizations better utilize their resources by automating testing and review processes, freeing up resources that can be used for other tasks.
- 5. Reduced Infrastructure Costs: CI/CD can help organizations reduce infrastructure costs by enabling them to use cloud-based services for testing and deployment, reducing the need for on-premises infrastructure.
- 6. Better Collaboration: CI/CD can help teams collaborate more effectively by providing greater visibility into the software development process and enabling teams to identify and address issues more quickly, potentially reducing costs associated with delays or rework.