



UTT

UNIVERSIDAD TECNOLÓGICA DE TIJUANA

GOBIERNO DE BAJA CALIFORNIA

TEMA: Introduccion a DevOps

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DevOps is a software development methodology that integrates development (Dev) and operations (Ops) teams to enhance collaboration and efficiency throughout the software development lifecycle. This approach emphasizes a cultural shift, fostering shared responsibility, continuous integration, and automation to deliver high-quality applications more rapidly.

Key Principles of DevOps:

1. **Collaboration:** Merging development and operations into a cohesive team that works together across the entire application lifecycle, from development and testing to deployment and operations.
2. **Automation:** Implementing automated processes for building, testing, and deploying code to accelerate releases and reduce human error.
3. **Continuous Integration and Continuous Delivery (CI/CD):** Regularly integrating code changes and delivering updates to production swiftly and safely, ensuring software is always in a releasable state.
4. **Monitoring and Logging:** Continuously observing applications and infrastructure to identify issues proactively and maintain system health.
5. **Security Integration (DevSecOps):** Embedding security practices into the DevOps process to ensure applications are secure by design.

Benefits of Adopting DevOps:

- **Accelerated Delivery:** Enhanced collaboration and automation lead to faster development and deployment cycles.
- **Improved Quality:** Continuous testing and integration help detect and resolve defects early, resulting in more reliable software.
- **Enhanced Collaboration:** Breaking down silos between teams fosters a culture of shared responsibility and collective problem-solving.
- **Greater Scalability:** Automated processes and consistent practices enable organizations to manage complex systems more effectively.

By embracing DevOps principles, organizations can achieve a more agile and responsive development process, delivering value to customers more efficiently and maintaining a competitive edge in the market.