



UTT

UNIVERSIDAD TECNOLÓGICA DE TIJUANA

GOBIERNO DE BAJA CALIFORNIA

TEMA: Tools for the process of development and integration
continue.

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MATERIA: Gestión del proceso del desarrollo de software

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Tools for the process of development and integration continue.

Continuous Integration (CI) and Continuous Development (CD) are essential practices in modern software development, emphasizing automation to enhance efficiency and code quality. A variety of tools support these processes, each offering unique features to facilitate seamless integration and deployment.

Jenkins: An open-source automation server that aids in building, testing, and deploying software. It supports numerous version control systems and integrates with various tools through a rich plugin ecosystem. Jenkins can be configured to trigger builds based on specific events, streamlining the development workflow.

TeamCity: Developed by JetBrains, TeamCity is a build management and continuous integration server. It offers features like gated commits, build grid capabilities for parallel execution, and integration with multiple IDEs. TeamCity supports various version control systems, making it adaptable to different development environments.

SonarQube: An open-source platform for continuous inspection of code quality. It performs automatic reviews using static code analysis to detect bugs, code smells, and security vulnerabilities across multiple programming languages. SonarQube integrates with build tools and CI pipelines to provide real-time feedback on code quality.

These tools are integral to implementing effective CI/CD pipelines, ensuring that code changes are automatically tested and deployed, leading to more reliable and maintainable software systems.