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(57) Abstract :

An AI-driven code refactoring tool is disclosed, comprising a Technical Debt Analyzer (101), Contextual Refactoring Engine (102), Code Transformation Unit (103), Developer Feedback Interface (104), and Autonomous Deployment Integrator (105). The tool autonomously identifies technical debt, generates context-sensitive code improvements, and learns from developer feedback to enhance maintainability. Integration into CI/CD pipelines ensures continuous code health, making the invention ideal for modern agile development environments while minimizing manual intervention.

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