

TDI

Executive Technical Debt Report

DevOps Factory

Generated: November 11, 2025

Comprehensive Analysis: Code Quality • AI Detection • Security Audit



Technical Debt Ratio

76.1%

Security Posture

40

AI-Generated Code

82%

Confidential - For Executive Use Only

Executive Summary

<div><div></div><div>Technical Debt Ratio</div><div>76.1%</div></div>	<div><div></div><div>Code Quality Score</div><div>10</div></div>
<div><div></div><div>Security Posture</div><div>40</div></div>	<div><div></div><div>Defect Density</div><div>27.19/1K LOC</div></div>

Critical Actions Required

- 6 critical issues need immediate attention
- Estimated 146 hours to address technical debt
- 6 security vulnerabilities identified

Key Performance Indicators

DORA Metrics

Deployment Frequency	Monthly
Lead Time for Changes	<1 day
Change Failure Rate	50%
Time to Restore Service	<1 hour

Developer Productivity

Velocity Trend	-9.090909090909092%
Impact Level	Critical
Focus Time	0%
Team Satisfaction	0/100

Business Impact

Estimated Financial Cost	\$21,825
Time to Remediate	146 hours
Critical Path Risk	100/100
Customer Impact Score	70/100

AI Code Detection Analysis

AI Code Detection Summary

AI-Generated Code

82%

Detection Confidence

86%

Risk Assessment

HIGH

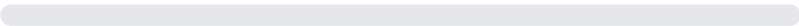
File Classification

AI-Generated Files



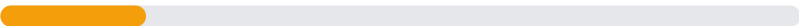
9 files (81.8%)

Human-Written Files



0 files (0.0%)

Mixed/Uncertain Files



2 files (18.2%)

Top AI Patterns Detected

- | | |
|---------------------------|------------------|
| • ai signature | (12 occurrences) |
| • generic comments | (8 occurrences) |
| • repetitive structures | (7 occurrences) |
| • uniform function length | (3 occurrences) |
| • high keyword density | (3 occurrences) |

Risk Assessment

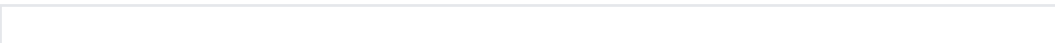
Security Risks



Maintenance Risks



Quality Risks



Security & Dependency Audit

Security Summary

Total Vulnerabilities	Critical Issues	Outdated Packages
0	0	4

Outdated Dependencies

@types/node	20.19.24 !' 24.10.0
marked	11.2.0 !' 17.0.0
pdfkit	0.15.2 !' 0.17.2
zod	3.25.76 !' 4.1.12

#ñp Estimated Remediation Time

1.0 hours

Strategic Recommendations

HIGH

Address Critical Security Issues

Immediately remediate 6 critical security vulnerabilities to prevent potential breaches.

Timeline: 1-2 weeks | Impact: High

HIGH

Reduce Technical Debt Ratio

Current TDR of 76.1% exceeds industry standards. Allocate 20% of sprint capacity to debt reduction.

Timeline: 3-6 months | Impact: High

MEDIUM

Improve Test Coverage

Increase test coverage from [object Object]% to at least 80% to reduce defect density.

Timeline: 2-3 months | Impact: Medium

MEDIUM

Review AI-Generated Code

82% of code appears AI-generated. Implement code review guidelines for AI-assisted development.

Timeline: 1 month | Impact: Medium