CS455 : Introduction to Software Engineering
Assignment 2
Aditi Khandelia , Kushagra Srivastava

Abstract

This document presents the analysis of the StackNServe project as of 2024-09-12. It highlights the reliability, security, maintainability, and major code issues detected during the project analysis.

Executive Summary

Overview	
Reliability:	A
Security:	A
Maintainability:	A
Bugs:	0
Vulnerabilities:	0
Code Smells:	102
Security Hotspots:	0
Debt Ratio:	0.6%
Coverage:	76.6%
Duplications:	0%

New Code Analysis

New Code Findings	
New Bugs:	0
New Vulnerabilities:	0
New Code Smells:	35
New Security Hotspots:	0
Debt Ratio on New Code:	3.5%

Issues Breakdown by Severity

Severity Overview		
Severity	**Issue Type**	**Number of Issues**
Blocker	Bug	0
Critical	Vulnerability	0
Major	Code Smell	35
Minor	Info	102

Top Common Issues

Top Code Smells	
Issue	**Occurrences**
Fields should not have public accessibility	25
external_roslyn:CS8618	20
external_roslyn:CS8625	10
Types should be named in PascalCase	9
Methods named "Dispose" should implement "IDisposable.Dispose"	5
Fields assigned in the constructor should be "readonly"	5

Security Hotspots

Security Hotspots
• No security hotspots found.

Detailed Code Smells Breakdown

Top Code Smell Issues		
Rule	**Issue Type**	**Occurrences**
Methods named "Dispose" should implement "IDisposable.Dispose"	Code Smell	5
Tests should include assertions	Code Smell	1
Unread "private" fields should be removed	Code Smell	1
Cognitive Complexity of methods should not be too high	Code Smell	1