

SOEN 6431: SOFTWARE COMPREHENSION AND MAINTENANCE

DÉJA VU TEAM B

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Collaboration Plan



- Design Thinking
- Pair Programming
- Environments Utilized:
 - GitHub: Source-code version control
 - **❖ Zoom:** Team meetings
- Google Docs: Documentation

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Critical Decisions



- Choice of Technology Stack: Critical decision impacting project efficiency and success.
- User Interface Design: Crucial decision affecting user experience and engagement.

	Impact	Likelihood
Blocker		
Critical		×
Major	×	
Minor	×	×

Critical Decisions (cont.)

- * Reengineering Strategies: Formulate solutions to improve maintainability.
- Risk-Benefit Analysis: Assess risks and benefits of reengineering.

S.no	FileName	Lines	Lines of code	Bug	Vulnerability	Code Smell
1	Analysis Charts Helpers. java	381	265	0	0	2
2	ColorPreferences.java	36	12	0	0	0
3	MainFrame.java	2313	1836	0	0	96
4	MainFrameHelpers.java	590	401	0	0	25
5	MainFrameSQLHelpers.java	355	204	0	0	4
6	TestMainFrame.java	28	17	0	0	1
	Total	3703	2735	0	0	128

Team Retrospective



- 1.Increased Code Review Frequency:

 Enhance code quality, catch issues early.
- 2. Automated Testing Enhancements:
 Boost stability, improve quality.
- 3. Better Resource Allocation:

 Optimize outcomes, reduce delays.
- 4. Documentation and Knowledge Sharing.

Limitations



- Time and Resource.
- Risk of Introduction of Bugs.
- Lack of Comprehensive Test.
- Legacy Code and Technical Debt.

Lessons Learned



- Collaboration: Effective teamwork demands open, respectful communication and idea sharing.
- Communication Skills: Vital for project success, include regular meetings and clear expectations to prevent breakdowns.
- Flexibility & Accountability: Adapting to changes and unforeseen issues. Each member responsible for task completion and project success.
- Continuous Learning: Projects offer learning and improvement opportunities.



Maintainabilitay of the R



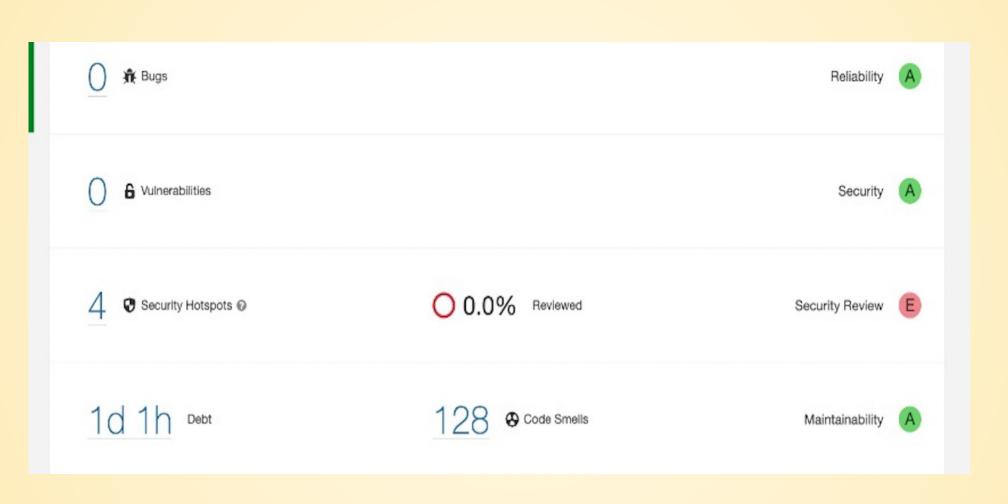
By the ISO/IEC 25010 Standard

- Modularity and Code Structure.
- Clear Documentation and Comments.
- Unit Testing and Quality Assurance.
- Consistent Coding Standards.

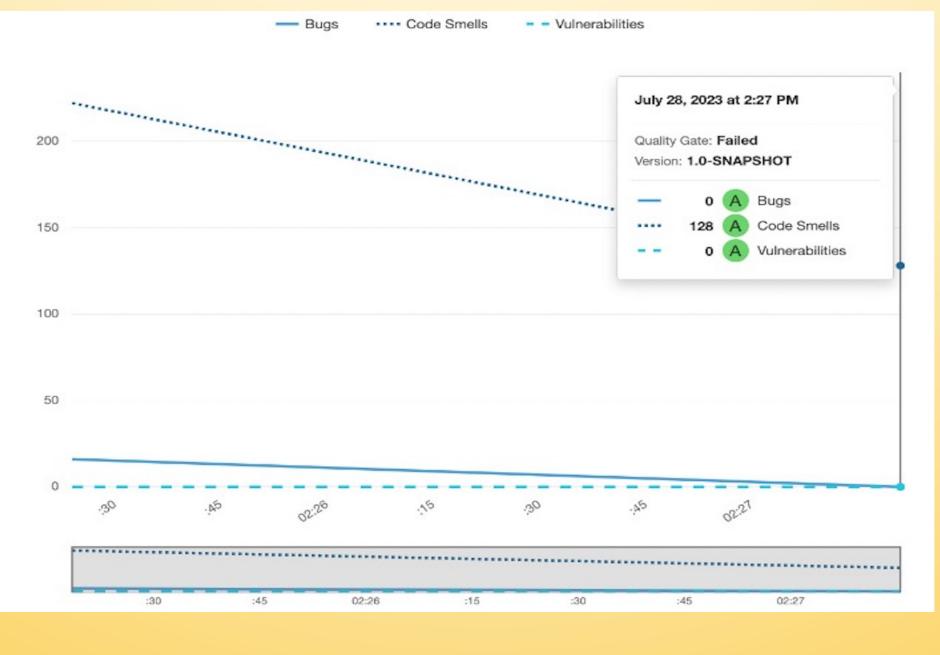
Outcomes of Refactoring

16 A Bugs		Reliability E
☐ Vulnerabilities		Security (A)
✓ Security Hotspots	O 0.0% Reviewed	Security Review E
2d 5h Debt	222 & Code Smells	Maintainability (A)

Before refactoring



After refactoring



After refactoring

