

Deliverable D04: Lint Report

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Group E8.02

Github Repository: <https://github.com/acme-recipes/Acme-Recipes>

Members:

- Gregorio Ortega Soldado (greortsol@alum.us.es) 30271286C
- Alejandro Manuel Gestoso Torres (alegestor@alum.us.es) 30260633Q
- Jaime Stockwell Mendoza (jaistomen@alum.us.es) 30696480J
- Pablo Aurelio Sánchez Valenzuela (pabsanval1@alum.us.es) 30246142S
- Manuel Cabra Morón (mancabmor1@alum.us.es) 47561328L
- Fernando Claros Barrero (ferclabar@alum.us.es)

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Executive summary

Across the following paper we describe the bad smells found on our project. The following bad smells show what we think is intrinsic to the project and as such have to be kept.

Revision Table

Revision	Description	Date
v1.0	Initial version	02/09/2022
v1.1	Changes on the initial draft	03/09/2022

Introduction

Ensuring all the functionalities of the code of a project is a fundamental process of developing a software system. It is as important as the code itself that every single piece of code is thoroughly tested by the time of making an important delivery to the client. It is also important in a group project that all the members of the development team know where miswritten code is failing, even if it's not made by him/her.

For these reasons we have come up with a plan to maintain the code tested at every moment, which we will detail in the following point.

Contents

The results of the SonarLint report were a total of 641 code smells and bugs:

- 11 minor bugs
- 630 code smells

The following image shows the general overview SonarCloud has given us along with its rating.



Minor Bugs

All minor bugs are related to tables with no description. In the laboratories and the rest of the project we have never added descriptions to tables, therefore, we do not consider these bugs relevant. These are the same ones that crept up during the first lint evaluation of the project, but since we have kept it to only those, we have opted on keeping the code as it is and focus on moving the project along.

<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L12			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L77			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L142			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L166			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L200			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L234			
	Bug Minor Open Not assigned 5min effort Comment				No tags	
<input type="checkbox"/>	Add a description to this table. Why is this an issue?	19 days ago	L268			
	Bug Minor Open Not assigned 5min effort Comment				No tags	

Code Smells

The code smells are divided into 21 minor, 545 major and 64 critical. Due to the large volume of code smells, across the entire project, we have made a decision to concentrate further efforts into the next deliverable, instead of trying to fix all of these code smells.

We will delve into the general types just to give an insight on the kind of code smells that we encountered:

Critical

<input type="checkbox"/>	Define a constant instead of duplicating this literal "critical" 3 times. Why is this an issue?	2 months ago ▾	L38			
	Code Smell ▾ Critical ▾ Open ▾ Not assigned ▾ 8min effort Comment				No tags ▾	
<input type="checkbox"/>	Define a constant instead of duplicating this literal "heading" 4 times. Why is this an issue?	5 hours ago ▾	L38			
	Code Smell ▾ Critical ▾ Open ▾ Not assigned ▾ 10min effort Comment				No tags ▾	

The main infractions here were duplications of literals across the code on multiple files.

Major

One very flagrant code smell was having commented code which we solved since it was just deleting it and it really annoyed us having such a dumb mistake

pom.xml						
<input type="checkbox"/>	Remove this commented out code. Why is this an issue?	2 months ago ▾	L93			
	Code Smell ▾ Major ▾ Open ▾ Not assigned ▾ 5min effort Comment				No tags ▾	

Among others replacing assertions with proper checks were some of the most common major code smells found in the project.

<input type="checkbox"/>	Replace this assert with a proper check. Why is this an issue?	19 days ago ▾	L28			
	Code Smell ▾ Major ▾ Open ▾ Not assigned ▾ 5min effort Comment				No tags ▾	
<input type="checkbox"/>	Replace this assert with a proper check. Why is this an issue?	19 days ago ▾	L108			
	Code Smell ▾ Major ▾ Open ▾ Not assigned ▾ 5min effort Comment				No tags ▾	
<input type="checkbox"/>	Replace this assert with a proper check. Why is this an issue?	19 days ago ▾	L109			
	Code Smell ▾ Major ▾ Open ▾ Not assigned ▾ 5min effort Comment				No tags ▾	
<input type="checkbox"/>	Replace this assert with a proper check. Why is this an issue?	19 days ago ▾	L110			
	Code Smell ▾ Major ▾ Open ▾ Not assigned ▾ 5min effort Comment				No tags ▾	

Minor

Among other things there also were changing ranges [0-9] with \d on our regex

src/.../java/acme/entities/element/Element.java

☐ Use concise character class syntax '\d' instead of '[0-9]'. Why is this an issue? 2 hours ago ▾ L37 🔗 🔍
🔗 Code Smell ▾ 🟡 Minor ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment 🏷 No tags ▾

src/.../java/acme/entities/finedish/FineDish.java

☐ Use concise character class syntax '\d' instead of '[0-9]'. Why is this an issue? 2 hours ago ▾ L42 🔗 🔍
🔗 Code Smell ▾ 🟡 Minor ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment 🏷 No tags ▾

src/.../java/acme/entities/memorandum/Memorandum.java

☐ Use concise character class syntax '\d' instead of '[0-9]'. Why is this an issue? 2 months ago ▾ L34 🔗 🔍
🔗 Code Smell ▾ 🟡 Minor ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment 🏷 No tags ▾

☐ Use concise character class syntax '\d' instead of '[0-9]'. Why is this an issue? 2 months ago ▾ L34 🔗 🔍
🔗 Code Smell ▾ 🟡 Minor ▾ 🔵 Open ▾ Not assigned ▾ 5min effort Comment 🏷 No tags ▾

Conclusion

In conclusion, we can say that our code has no major or application breaking bugs as found by SonarCloud, on the code smell side we could have definitely fixed most of them but the sheer amount of time required to fix all of those code smells simply outweighed the benefit we would have reaped on efficiency and readability.