**Account Application Review**

**Sonarqube**

Project has 17 smells, 0 vulnerabilities, 0 bugs.

Issues include;

* Not writing new attributes on a new line.
* Replacing System.out.Println() with Logger.log().
* Naming convention e.g not naming a hashmap “service” if it is in a class called “Service”.
* Naming convention e.g naming packages correctly e.g it’s applicationtest not applicationTest.
* Boolean is unnecessary.

**ECL EMMA**

* Project has 47.6% test coverage.
* The tests for methods getName and getID were not run.

Manual Testing

1. N/A
2. N/A
3. 47.6% code coverage
4. No unused members
5. No streams used
6. Classes are small and concise
7. Structure of “Instance variable, constructors, methods” is followed.
8. Comments don’t exist
9. Code is self-documenting
10. No method returns null
11. No repeated code
12. No nested logic statements
13. No constructers have more than five parameters
14. Encapsulation is properly followed, with setters and getters.
15. Members are all self-documenting
16. N/A
17. N/A
18. Similar logic is applied everywhere
19. N/A
20. Single statement does not go beyond viewable area.
21. Additional code does not break existing functionality of code
22. N/A
23. No checking of strings is carried out

***Suggestion on improvements-***

* Write lastName on another line
* Replace SOPL with Logger
* Rename map and package to match convention.
* Rewrite tests so they cover methods and coverage amount is increased.
* Remove Boolean.