

# SWE

## Assignment-3

### Group Members

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## Assignment -3

### Tasks

1. Download the ARGOUML Source Code in 3 different Programming Languages
2. <https://github.com/argouml-tigris-org>
3. Provide the Code Quality Results from using three different tools of ARGOUML
4. Provide Feature Information Reported
5. Provide Bugs issues
6. Provide Project Release Report
7. Provide common Pattern available in All Releases

## Table Of Content

No#	Task	Page#
1	Download the ARGOUML Source Code in 3 different Programming Languages	3
2	Provide the Code Quality Results from using three different tools of ARGOUML	3
3	Provide Feature Information Reported	6
4	Provide Bugs issues	7
5	Provide Project Release Report	12
6	Provide common Pattern available in All Releases	12

## Task: 1

Download the ARGOUML Source Code in 3 different Programming Languages

[Argouml-Java](#)

[Argouml-Cpp](#)

[Argouml-Csharp](#)

## Task: 2

Provide the Code Quality Results from using three different tools of ARGOUML

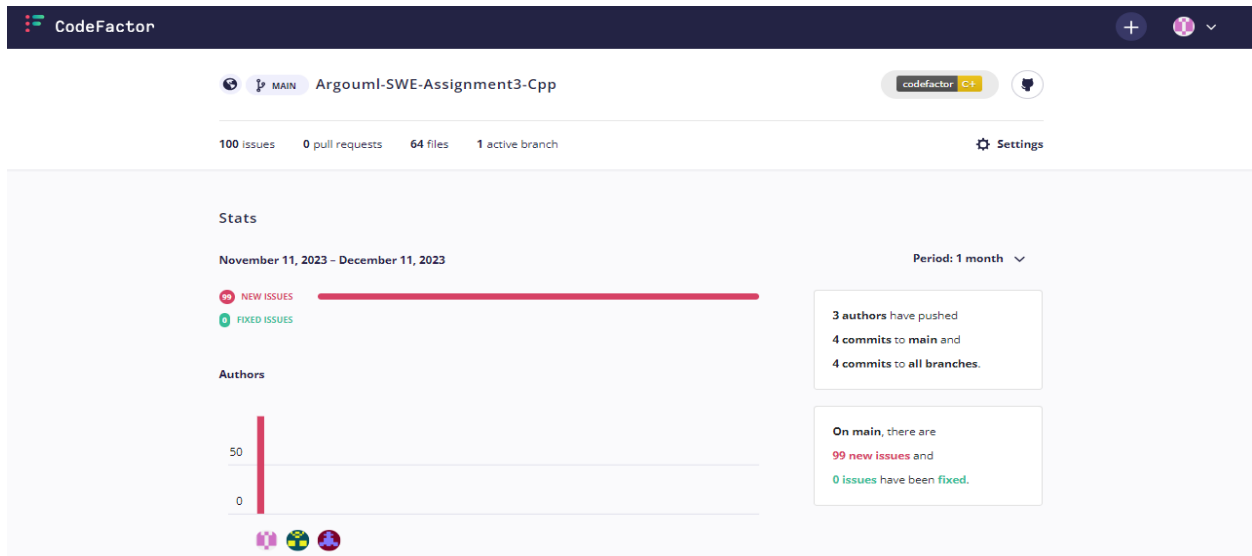
No#	Tools	Description
1	Code scene	<ol style="list-style-type: none"><li>1. Code health-Prioritize technical debt</li><li>2. Red code, Yellow code, Green Code</li><li>3. Hotspot code health, Average code health</li><li>4. Worst performer</li></ol>
2	Codacy	<ol style="list-style-type: none"><li>1. Code pattern</li><li>2. Issues of each files</li><li>3. Issue, cyclomatic complexity, Duplication</li><li>4. Coverage</li></ol>
3	Code Factor	<ol style="list-style-type: none"><li>1. Gave actionable refactoring tip</li><li>2. Issue of each files</li><li>3. Complexity, code style, maintainability</li></ol>
4	Codeac	<ol style="list-style-type: none"><li>1. Technical Debt</li><li>2. Code errors, code warning, issues</li><li>3. Feedback</li><li>4. Code duplication between files</li></ol>
5	DeepSource	<ol style="list-style-type: none"><li>1. Bug risk, coverage, security, code style, performance</li><li>2. Anti-pattern</li><li>3. Auto fix</li><li>4. Code health</li></ol>

# Repository 1: Argouml-SWE-Assignment3-Cpp

## Argouml-Cpp

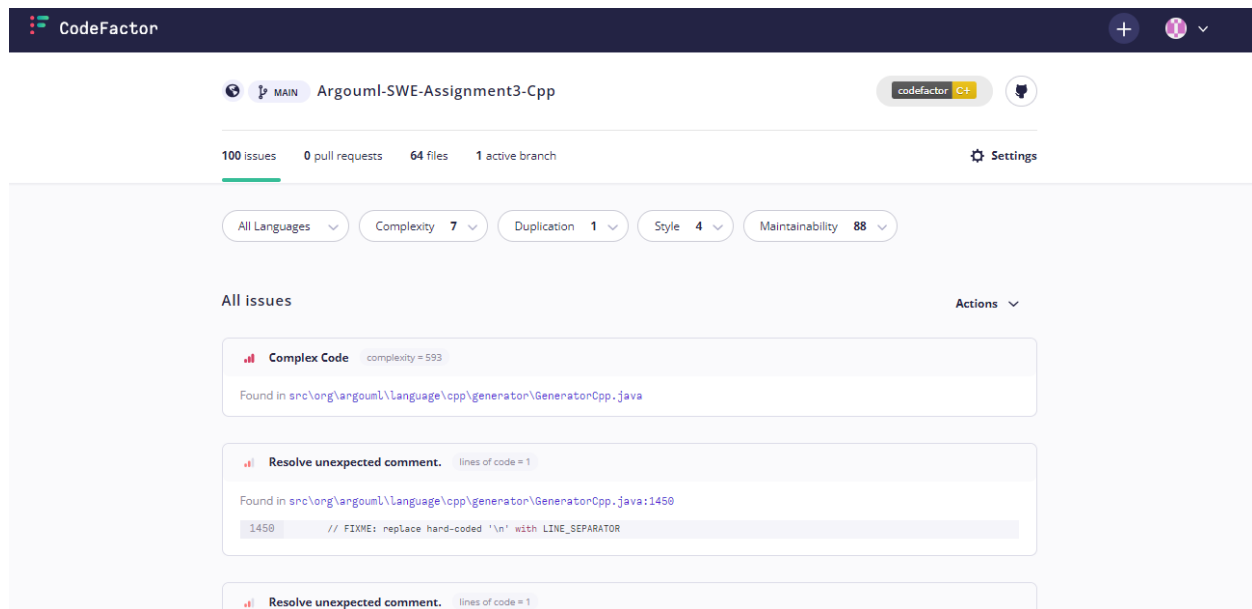
Tools:

1. deep source: [deepsourc report](#)
2. codescene : [code-health-report](#) (drive link)
3. codacy : [codacy badger](#) (save in read me)
4. codeac : [codeac Badger](#) (save in read me)
5. codefactor



CodeFactor dashboard for repository Argouml-SWE-Assignment3-Cpp. The dashboard shows 100 issues, 0 pull requests, 64 files, and 1 active branch. The table below lists the files and their associated metrics.

GRADE	NAME	COMPLEXITY	CHURN	ISSUES
A	src\org\angouml\language\cpp\generator\AssociationEndHandler.java	9	1	-
F	src\org\angouml\language\cpp\generator\GeneratorCpp.java	593	1	29
A	src\org\angouml\language\cpp\generator\Inline.java	21	1	2
A	src\org\angouml\language\cpp\generator\ModuleCpp.java	8	1	-
A	src\org\angouml\language\cpp\generator\Section.java	9	1	-
A	src\org\angouml\language\cpp\generator\package.html		1	-
A	src\org\angouml\language\cpp\notation\AttributeNotationCpp.java	4	1	2
A	...g\angouml\Language\cpp\notation\ModelElementNameNotationCpp.java	8	1	2
		--	-	



## Repository 2: [Argouml-SWE-Assignment3-Java](#)

### [Argouml-Java](#)

Tools:

1. deep source: [deepsourc report](#) ([issue](#))
2. codescene : [code-health-report java](#)(drive link)
3. codacy : [codacy badge](#) (save in read me)
4. codeac : [codeac badge](#) (save in read me)

## Repository 3: [Argouml-SWE-Assignment3-Csharp](#)

### [Argouml-Csharp](#)

Tools:

1. codescene : [code-health-report csharp](#)(drive link)
2. codacy : [codacy badge](#)(save in read me)
3. codeac : [codeac badge](#) (save in read me)

## Task: 3

Provide Feature Information Reported

ArgoUML Features : <https://argouml-tigris-org.github.io/tigris/argouml/features.html>

ArgoUML provides the following features.

1. Support for all 9 UML 1.4 Diagrams
2. Platform-independent, compatible with Java 5+
3. Easy installation via Java Web Start
4. Standard UML 1.4 Metamodel compliance
5. UML Profile support with provided profiles for Java, C++, and UML 1.4
6. XMI Support for easy interchange with other tools
7. Export diagrams in various formats, including GIF, PNG, PS, EPS, PGML, and SVG
8. Internationalization in ten languages
9. Advanced diagram editing and zoom features
10. OCL (Object Constraint Language) support for constraint modeling
11. Forward and reverse engineering capabilities
12. Cognitive support, design critics, and corrective automations
13. "To Do" list for organizing and managing tasks
14. User model for tailoring suggestions based on the designer's context
15. Checklists for design reviews
16. Explorer perspectives with customizable rules
17. Multiple, overlapping views for a comprehensive understanding of complex designs

## Task: 4

Provide Bugs issues

Issues before making clone <https://github.com/argouml-tigris-org/argouml/issues>

### Repository 1: Argouml-SWE-Assignment3-Cpp

deep source:

The screenshot shows the DeepSource web interface for the repository 'Argouml-SWE-Assignment3-Cpp'. The left sidebar lists various issue categories with their counts: All issues (214), Recommended (25), Secrets (0), Bug Risk (41), Anti-pattern (14), Security (1), Performance (9), Typecheck (0), Coverage (0), Style (5), and Documentation (144). The main panel displays a list of issues:

Issue Title	Severity	Count
Anonymous classes should not contain unused non-overridden methods	Major	2
Static field accessed before being written	Major	2
Method returning collection/array type returns null instead	Major	1
Test files should contain tests	Minor	3
For loop appears to check one variable and increment another	Major	1
Private field is never initialized	Major	1

Code factor:

The screenshot shows the CodeFactor web interface for the repository 'Argouml-SWE-Assignment3-Cpp'. The top bar displays the repository name and a 'codefactor C++' badge. Below the repository name, it shows '100 issues', '0 pull requests', '64 files', and '1 active branch'. The 'All issues' section lists the following issues:

- Complex Code** (complexity = 593): Found in `src\org\argouml\language\cpp\generator\GeneratorCpp.java`
- Resolve unexpected comment.** (lines of code = 1): Found in `src\org\argouml\language\cpp\generator\GeneratorCpp.java:1450`. The code snippet shows: `1450 // FIXME: replace hard-coded '\n' with LINE_SEPARATOR`
- Resolve unexpected comment.** (lines of code = 1): Found in `src\org\argouml\language\cpp\generator\GeneratorCpp.java:1450`



## Codeac:

NEHANOVEED123  
ARGOUML-SWE-ASSIGNMENT3-CPP

NEHANOVEED123

All repositories

Dashboard

Commits

Pull requests

Settings

Most common issues

New issues (0) All issues

424 Issues

242 Errors

182 Warnings

UnnecessaryFullyQualifiedName	101	ControlStatementBraces	69
LiteralsFirstInComparisons	50	UselessParentheses	46
GuardLogStatement	34	CodeDuplication	24
ForLoopCanBeForeach	11	UnnecessaryImport	11
UncommentedEmptyMethodBody	10	UnnecessaryLocalBeforeReturn	8
SingularField	7	UseCollectionIsEmpty	7
CompareObjectsWithEquals	5	UnusedFormalParameter	5
UseLocaleWithCaseConversions	4	DoubleBraceInitialization	3
EmptyCatchBlock	3	UnnecessaryModifier	3
AssignmentInOperand	2	AvoidAccessibilityAlteration	2
CloseResource	2	EmptyStatementNotInLoop	2
ReturnEmptyCollectionRatherThanNull	2	AssignmentToNonFinalStatic	1
ClassNamingConventions	1	DoNotCallGarbageCollectionExplicitly	1
EmptyIfStmt	1	IdenticalCatchBranches	1

## Codacy:

NEHANOVEED123 / Argouml-SWE-Assignment3-Cpp

Community Docs

Go back

Files main

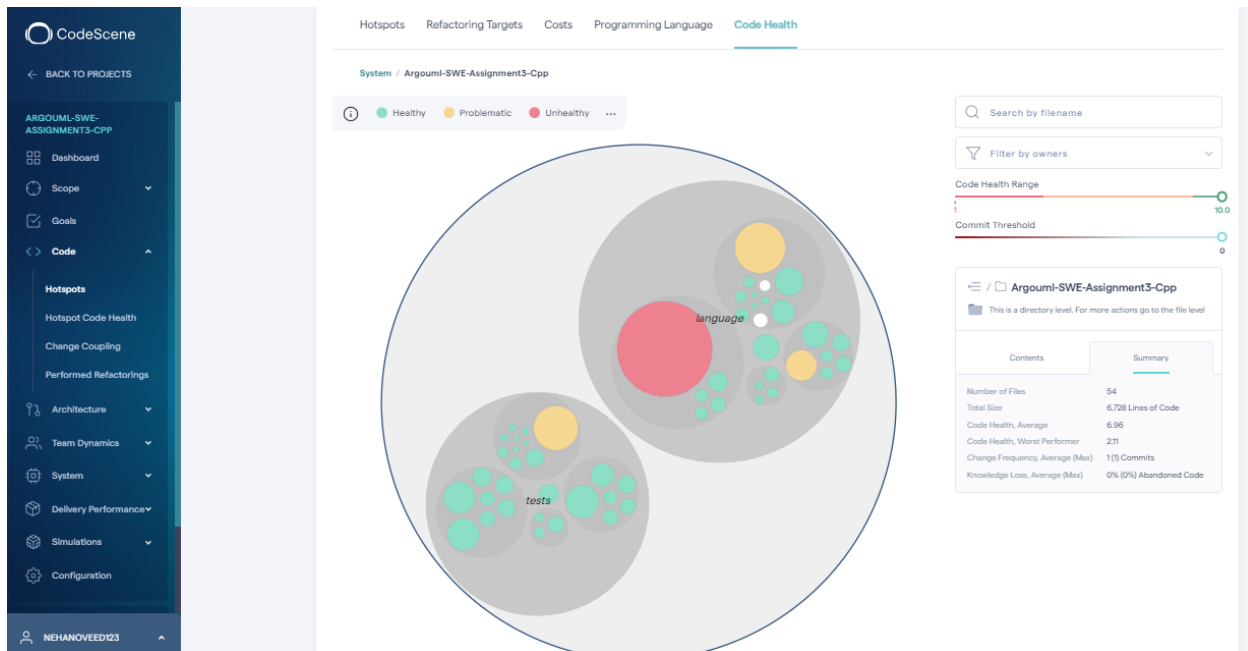
Search files

Missing some files?

Grade	Filename	Issues	Complexity	Duplication
B	src / org / argouml / language / cpp / generator / GeneratorCpp.java	63	23	0
B	tests / org / argouml / language / cpp / reveng / TestCppImport.java	51	10	0
B	src / org / argouml / language / cpp / reveng / ModelerImpl.java	50	10	0
B	tests / org / argouml / language / cpp / generator / TestGeneratorCpp.java	19	2	0
B	tests / org / argouml / language / cpp / generator / BaseTestGeneratorCpp.java	12	1	0

Feedback

Code scene:



## Repository 2: [Argouml-SWE-Assignment3-Java](#)

Codacy:

app.codacy.com/gh/Aiza22-del/Argouml-SWE-Assignment3-Java/files

Go back

Files main

Search files

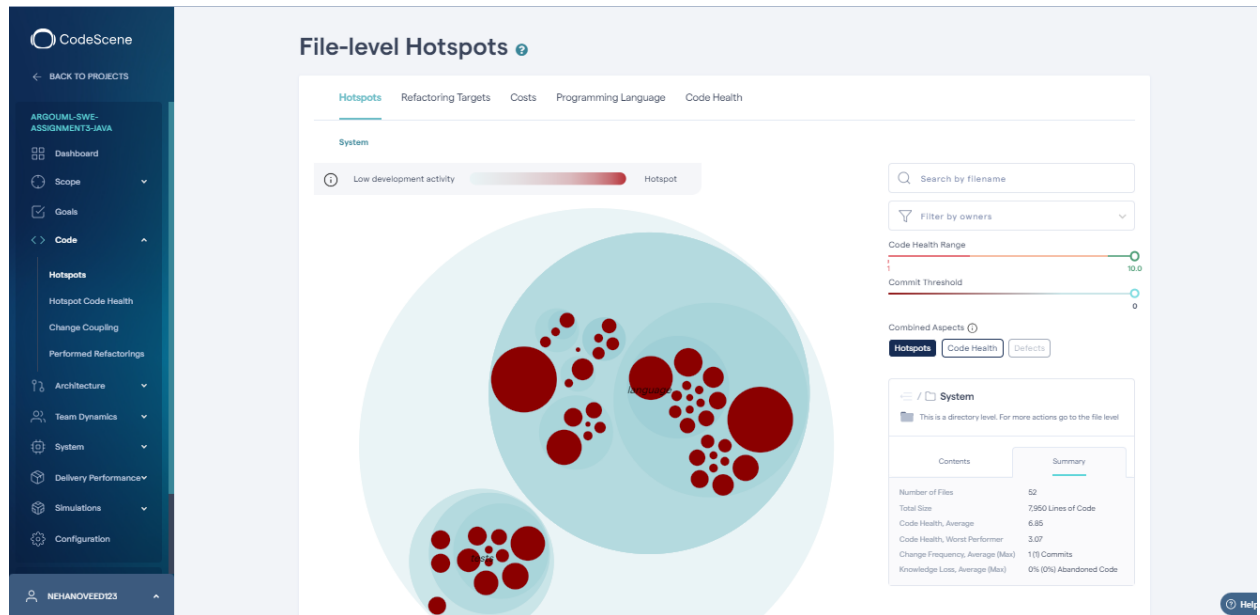
Missing some files?

Grade	Filename	Issues	Complexity	Duplication
F	README.md	5	-	-
A	src / org / argouml / language / java / codesync / CodeSyncJava.java	1	5	0
D	src / org / argouml / language / java / cod... / ui / CodeSyncPanel.java	3	1	0
A	src / org / argouml / language / java... / ui / CodeSyncTableModel.java	0	10	0

Feedback

12:45 PM 12-Dec-23

CodeScene:



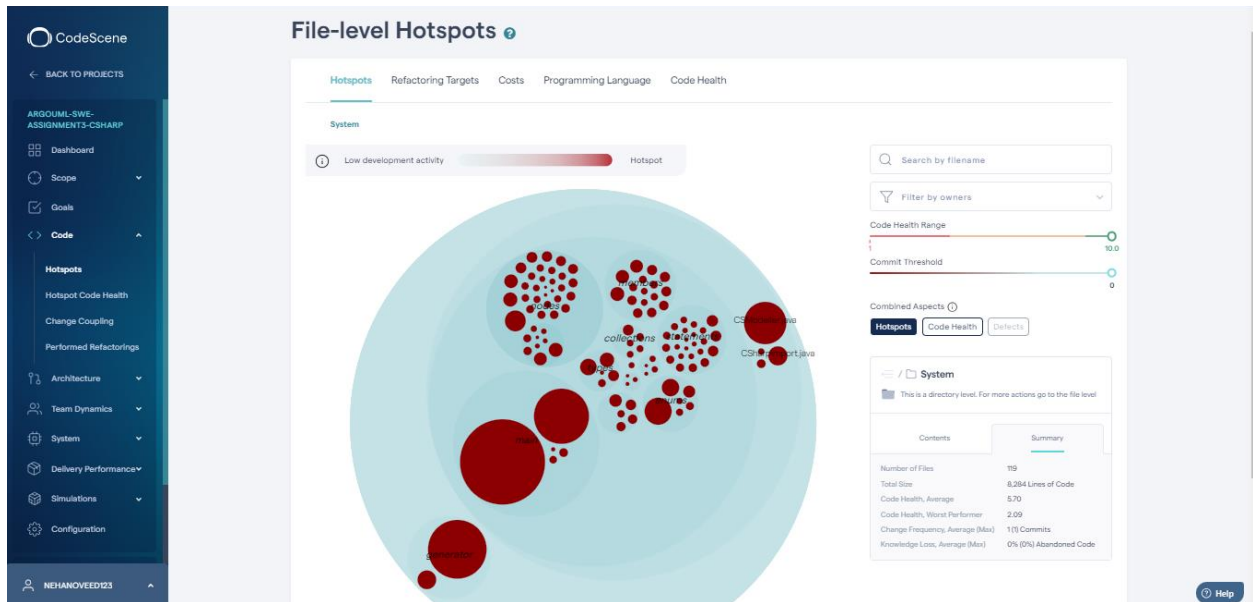
### Repository 3: [Argouml-SWE-Assignment3-Csharp](#)

Codacy:

The Codacy dashboard for the repository 'Argouml-SWE-Assignment3-Csharp' displays a table of file quality metrics. The table includes columns for 'Grade', 'Filename', 'Issues', 'Complexity', and 'Duplication'. The files are sorted by 'Issues' in descending order. The table shows 7 files with their respective quality scores and counts.

Grade	Filename	Issues	Complexity	Duplication
C	src / org / argouml / language / csharp / importer / csparser / main / Parser.java	100	84	6
B	src / org / argouml / language / csharp / generator / GeneratorCSharp.java	60	33	0
D	src / org / argouml / language / csharp / importer / csparser / enums / Modifier.java	50	-	0
C	src / org / argouml / language / csharp / importer / csparser / enums / TokenID.java	50	21	0
D	src / org / argouml / language / csharp / importer / csparser / enums / NumberStyles.java	49	-	0
B	src / org / argouml / language / csharp / importer / CSMoeller.java	35	11	6
F	src / org / argouml / language / csharp / importer / csparser / main / Lexer.java	26	311	231

Code scene:



## Task: 5

Provide Project Release Report

Using wiki page of Argouml <https://github.com/argouml-tigris-org/argouml/wiki>

<https://github.com/argouml-tigris-org/argouml/releases>

- Releases: <https://github.com/argouml-tigris-org/argouml/releases> (old from the work done at tigris). The [GITHUB\\_IMPORT release](#) contains a dump of all old issues.

Release tags of each repository before clone

[argouml-cpp/tags](#)

[argouml-java/tag](#)

[argouml-csharp/tags](#)

## Task: 6

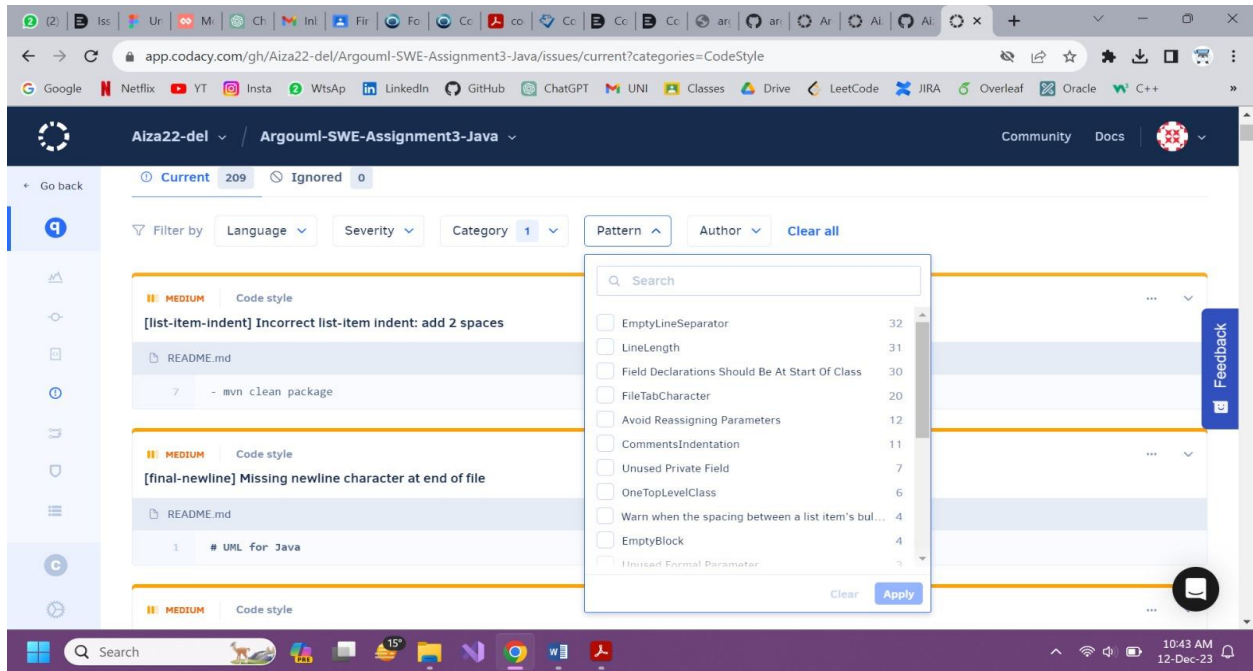
Provide common Pattern available in All Releases

Cpp [pattern - codacy tools](#)

The screenshot displays the Codacy web interface for a repository named 'Argouml-SWE-Assignment3-Cpp'. The top navigation bar includes links for Product, Pricing, Self-hosted, Community, Login, and a Sign up button. The main content area is titled 'Issues' and shows a list of code quality issues. Two issues are visible, both labeled 'MEDIUM' and 'Code style', with the title 'Avoid reassigning parameters such as 'name''. The first issue is at line 2686 in 'src/org/argouml/language/cpp/generator/GeneratorCpp.java' and shows the code 'name += "Assoc";'. The second issue is at line 2882 in the same file and shows the code 'o = getFacade().getNamespace(o);'. A modal window is open, displaying a list of patterns with checkboxes and counts. The patterns listed are: Unnecessary Fully Qualified Name (84), EmptyLineSeparator (60), Field Declarations Should Be At Start Of Class (48), LineLength (26), FileTabCharacter (11), AvoidStarImport (10), String Instantiation (10), NPath Complexity (9), JUnit Tests Should Include Assert (9), Collapsible If Statements (8), and CommentsIndentation (8). The interface also includes a sidebar with navigation icons and a feedback button on the right.

## Repository 2: [Argouml-SWE-Assignment3-Java](#)

[codacy java patterns](#)



## Repository 3: [Argouml-SWE-Assignment3-Csharp](#)

### [Codacy Pattern csharp](#)

