

>>> Flora clinic >>>

Student Name in English	Section	Work percentage
AYA AYMAN QUBBAJ	10-11	33.33%
LEEN AYMAN HODALLY	10-11	33.33%
SUHA SAMER MANSUR	8-9:30	33.33%

All the team work together by meeting on zoom app.

>>> *Flora clinic* >>>

Welcome to ~~OUR FLORA CLINIC~~ and we are happy for being one of our family ... hoping that you are always in a good health.



->Some information about our clinic:

Flora Clinic

Under the supervision doctor Mohamed Abo Obaid

Our successful story:

The benefits since I have had the treatment is that I'm able to eat without fear of anything falling out, my teeth are all well fixed, the fillings are always well done and never give me a problem, so as it were I enjoy eating with my teeth.

-After apply the tutorial Jenkins on our project

The screenshot shows the Jenkins Dashboard. At the top, there's a search bar and a user profile for 'leen ayman hodali'. The left sidebar contains navigation links: New Item, People, Build History, Project Relationship, Check File Fingerprint, Manage Jenkins, and My Views. The main area displays a table of jobs. The 'software_1' job is highlighted, showing its last success at 7 hr 48 min and last failure at 8 hr 2 min. Below the table, there's an 'Icon legend' and 'Atom feed' links. At the bottom, there's an 'Activate Windows' watermark.

S	W	Name	Last Success	Last Failure	Last Duration
✓	☁	software_1	7 hr 48 min #8	8 hr 2 min #5	19 sec

✓ Console Output

```
Started by user leen ayman hodali
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\.jenkins\workspace\software_1
The recommended git tool is: NONE
using credential 585413b0-30f5-496d-bdb7-6c41fca99b4b
> C:\Program Files\Git\bin\git.exe rev-parse --resolve-git-dir C:\ProgramData\Jenkins\.jenkins\workspace\software_1\.git # timeout=10
Fetching changes from the remote Git repository
> C:\Program Files\Git\bin\git.exe config remote.origin.url https://ghp_kakWvyG7s5XoKpeXKGxc8KqslpBvTQ0oIMc9@github.com/leen-hodali/soft2.git # timeout=10
Fetching upstream changes from https://ghp_kakWvyG7s5XoKpeXKGxc8KqslpBvTQ0oIMc9@github.com/leen-hodali/soft2.git
> C:\Program Files\Git\bin\git.exe --version # timeout=10
> git --version # 'git version 2.37.3.windows.1'
using GIT_ASKPASS to set credentials
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- https://ghp_kakWvyG7s5XoKpeXKGxc8KqslpBvTQ0oIMc9@github.com/leen-hodali/soft2.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> C:\Program Files\Git\bin\git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision 2708bc50c1df59dd7118b2253096b4d040fe87f9 (refs/remotes/origin/master)
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\git.exe checkout -f 2708bc50c1df59dd7118b2253096b4d040fe87f9 # timeout=10
Commit message: "message"
> C:\Program Files\Git\bin\git.exe rev-list --no-walk 2708bc50c1df59dd7118b2253096b4d040fe87f9 # timeout=10
[software_1] $ cmd.exe /C "C:\Users\leen\Downloads\apache-maven-3.8.6\bin\mvn.cmd clean compile test && exit %ERRORLEVEL%"
[INFO] Scanning for projects...
[INFO]
```

-After apply the tutorial sonarqube on our project

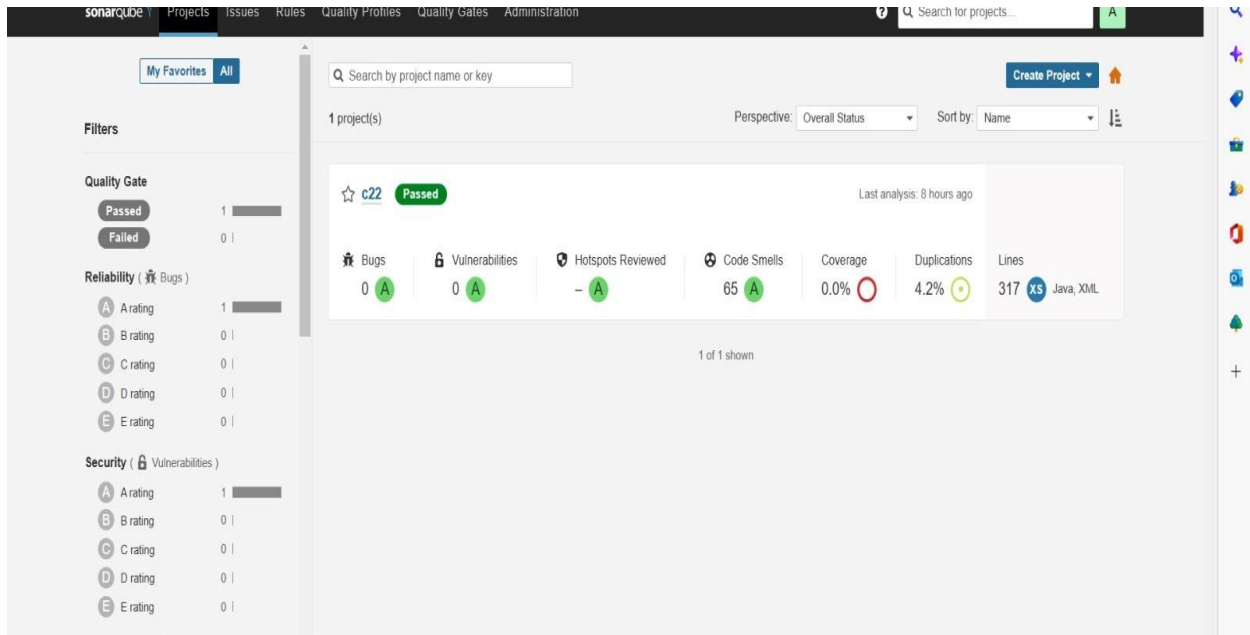
 Console Output done and success.

```
dashboard > software_1 > #16

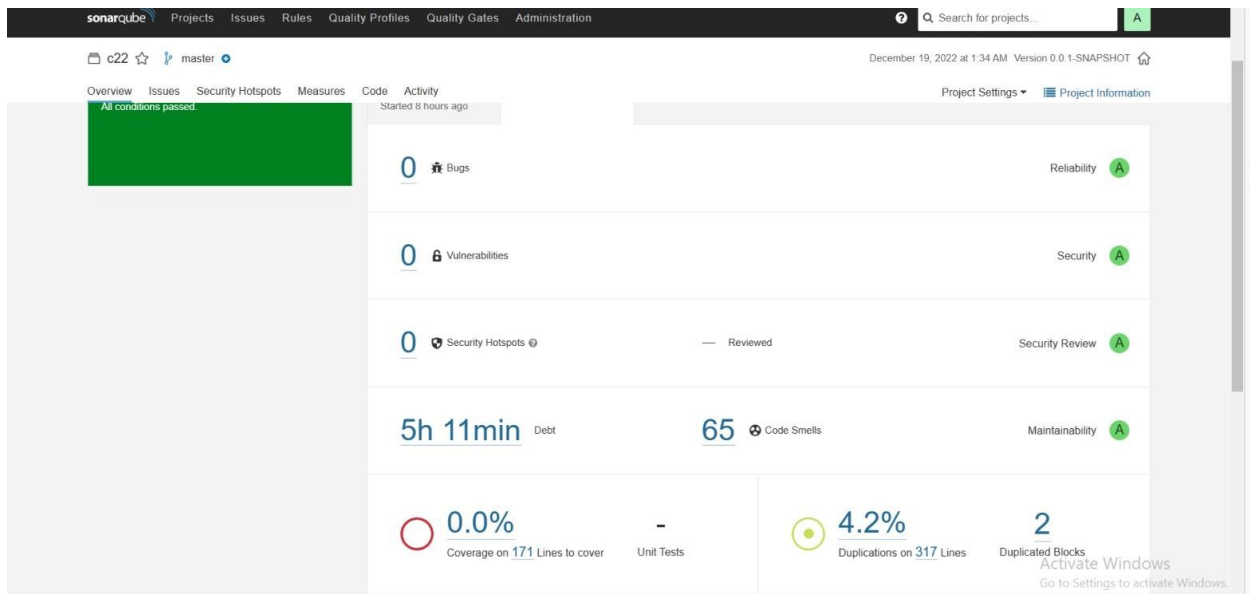
[INFO] Analysis report compressed in 99ms, zip size=50.3 kB
[INFO] Analysis report uploaded in 35ms
[INFO] ANALYSIS SUCCESSFUL, you can find the results at: http://localhost:9000/dashboard?id=clinic83Ac22
[INFO] Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report
[INFO] More about the report processing at http://localhost:9000/api/ce/task?id=AYUxMzollWnP0I2\_SccC1
[INFO] Analysis total time: 7.687 s
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 10.059 s
[INFO] Finished at: 2022-12-20T22:21:58+02:00
[INFO] -----
[JaCoCo plugin] Collecting JaCoCo coverage data...
[JaCoCo plugin] **/*.exec;**/classes;**/src/main/java; locations are configured
[JaCoCo plugin] Number of found exec files for pattern **/*.exec: 0
[JaCoCo plugin] Saving matched execfiles:
[JaCoCo plugin] Saving matched class directories for class-pattern: **/classes:
[JaCoCo plugin] - C:\ProgramData\Jenkins\jenkins\workspace\software_1\target\classes 3 files
[JaCoCo plugin] Saving matched source directories for source-pattern: **/src/main/java:
[JaCoCo plugin] Source Inclusions: **/*.java,**/*.groovy,**/*.kt,**/*.kts
[JaCoCo plugin] Source Exclusions:
[JaCoCo plugin] - C:\ProgramData\Jenkins\jenkins\workspace\software_1\src\main\java 3 files
[JaCoCo plugin] Loading inclusions files..
[JaCoCo plugin] inclusions: []
[JaCoCo plugin] exclusions: []
[JaCoCo plugin] Thresholds: JacocoHealthReportThresholds [minClass=0, maxClass=0, minMethod=0, maxMethod=0, minLine=0, maxLine=0, minBranch=0,
maxBranch=0, minInstruction=0, maxInstruction=0, minComplexity=0, maxComplexity=0]
[JaCoCo plugin] Publishing the results..
[JaCoCo plugin] Loading packages..
[JaCoCo plugin] Done.
[JaCoCo plugin] Overall coverage: class: 0.0, method: 0.0, line: 0.0, branch: 0.0, instruction: 0.0, complexity: 0.0
Finished: SUCCESS
```

-After apply the first sonarqube on our project

->Without coverage




The screenshot shows the SonarQube 'Projects' page. The top navigation bar includes 'sonarqube', 'Projects', 'Issues', 'Rules', 'Quality Profiles', 'Quality Gates', and 'Administration'. A search bar is on the right. On the left, there are filters for 'My Favorites' and 'All'. The main content area shows '1 project(s)' with a search bar and filters for 'Perspective' (Overall Status) and 'Sort by' (Name). The project 'c22' is listed with a 'Passed' status and 'Last analysis: 8 hours ago'. Below the project name, there are metrics: Bugs (0), Vulnerabilities (0), Hotspots Reviewed (0), Code Smells (65), Coverage (0.0%), Duplications (4.2%), and Lines (317). The project is associated with 'Java, XML'.



The screenshot shows the SonarQube project details page for 'c22'. The top navigation bar includes 'sonarqube', 'Projects', 'Issues', 'Rules', 'Quality Profiles', 'Quality Gates', and 'Administration'. The page title is 'c22' with a star icon and 'master' branch. The date and time are 'December 19, 2022 at 1:34 AM' and the version is 'Version 0.0.1-SNAPSHOT'. The page has tabs for 'Overview', 'Issues', 'Security Hotspots', 'Measures', 'Code', and 'Activity'. The 'Overview' tab is selected, showing 'All conditions passed.' and 'Started 8 hours ago'. The main content area displays various quality metrics: Bugs (0), Reliability (A), Vulnerabilities (0), Security (A), Security Hotspots (0), Security Review (A), Debt (5h 11min), Code Smells (65), Maintainability (A), Coverage (0.0%), Unit Tests (-), Duplications (4.2%), and Duplicated Blocks (2). The project is associated with 'Java, XML'.

Code Bad smells

 Projects Issues Rules Quality Profiles Quality Gates Administration

🔍 Search for projects...

A

c22 ⭐ master

December 19, 2022 at 1:34 AM Version 0.0.1-SNAPSHOT

Overview Issues Security Hotspots Measures Code Activity

Project Settings Project Information

My Issues All

Filters

Clear All Filters

Period

New code

Type CODE SMELL Clear

Bug 0

Vulnerability 0

Code Smell 65

Press Ctrl to add to selection

Severity

Blocker 0 Minor 35

Critical 1 Info 23

Major 6

Scope

Resolution

Status

Security Category

Creation Date

Language

Bulk Change

src/main/java/c21/Admin.java

Rename this package name to match the regular expression `^[a-z_]+([a-z_][a-z0-9_]*)?$`. 9 hours ago L1 convention

Code Smell Minor Open Not assigned 10min effort Comment

Replace the type specification in this constructor call with the diamond operator (`<>`). 9 hours ago L11 clumsy

Code Smell Minor Open Not assigned 1min effort Comment

The type of "users" should be an interface such as "List" rather than the implementation "ArrayList". 9 hours ago L11 bad-practice

Code Smell Minor Open Not assigned 10min effort Comment

Make users a static final constant or non-public and provide accessors if needed. 9 hours ago L11 cwe

Code Smell Minor Open Not assigned 10min effort Comment

Make this "public static users" field final 9 hours ago L11 cert, cwe

Code Smell Minor Open Not assigned 20min effort Comment

Make this member "protected". 9 hours ago L11 cert, cwe, unpredictable

Code Smell Minor Open Not assigned 15min effort Comment

Reorder the modifiers to comply with the Java Language Specification. 9 hours ago L11 convention

Code Smell Minor Open Not assigned 2min effort Comment

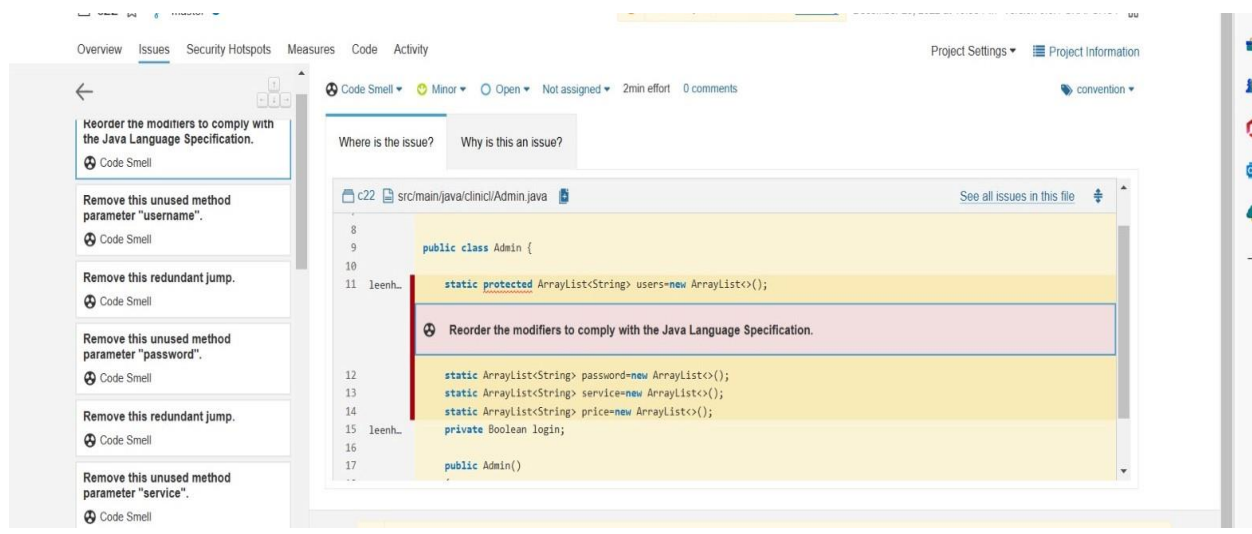
Replace the type specification in this constructor call with the diamond operator (`<>`). 9 hours ago L12 clumsy

Code Smell Minor Open Not assigned 1min effort Comment

Activate Windows
Go to Settings to activate Windows

->An example on bad smell and the solution for it:

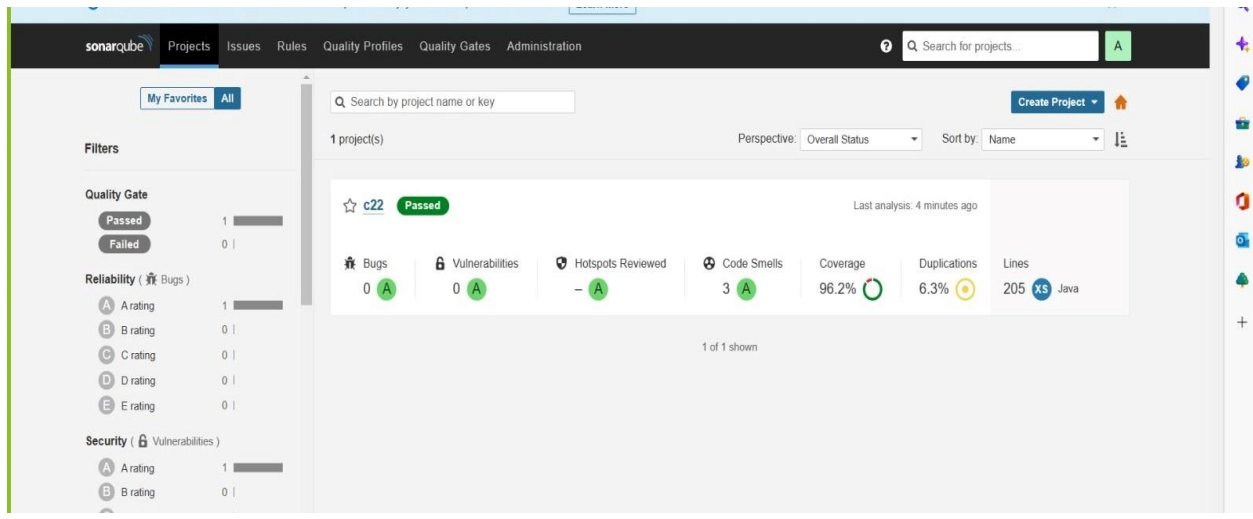
->bad smell:



->The solution:

```
1 package clinic1;
2
3 import java.util.ArrayList;
4
5
6
7
8
9 public class Admin {
10
11     protected static ArrayList<String> users=new ArrayList<>();
12     static ArrayList<String> password=new ArrayList<>();
13     static ArrayList<String> service=new ArrayList<>();
14     static ArrayList<String> price=new ArrayList<>();
15     private Boolean login;
16
17     public Admin()
18     {
19         super();
20         users.add("aya");
21         users.add("suha");
22         password.add("12345");
23         password.add("94944");
24         service.add("Root canal treatment");
25         service.add("Scale and polish");
26         service.add("Braces");
27         service.add("Dental implants");
28         service.add("cleaning teeth");
29         password.add("200");
30         password.add("100");
31         password.add("300");
32         password.add("200");
33         password.add("50");
34     }
35 }
```

After edit on code to reduce the bad smells



It became a 3 bad smells just.

And the coverage passed.

-After apply the tutorial jacoco on our project

 Console Output done and success.

```
[INFO] Building jar: C:\ProgramData\Jenkins\workspace\software_1\target\c22-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.8:prepare-agent (prepare-agent) @ c22 ---
[INFO] itCoverageAgent set to -javaagent:C:\WINDOWS\system32\config\systemprofile\.m2\repository\org\jacoco\org.jacoco.agent\0.8.8\org.jacoco.agent-0.8.8-
runtime.jar=destfile=C:\ProgramData\Jenkins\workspace\software_1\target\jacoco.exec
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ c22 ---
[INFO] Installing C:\ProgramData\Jenkins\workspace\software_1\target\c22-0.0.1-SNAPSHOT.jar to C:\WINDOWS\system32\config\systemprofile\.m2\repository\clinic\c22\0.0.1-SNAPSHOT\c22-0.0.1-SNAPSHOT.jar
[INFO] Installing C:\ProgramData\Jenkins\workspace\software_1\pom.xml to C:\WINDOWS\system32\config\systemprofile\.m2\repository\clinic\c22\0.0.1-SNAPSHOT\c22-0.0.1-SNAPSHOT.pom
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.8:report (default-cli) @ c22 ---
[INFO] Skipping JaCoCo execution due to missing execution data file.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.119 s
[INFO] Finished at: 2022-12-20T22:13:44+02:00
[INFO] -----
[JaCoCo plugin] Collecting JaCoCo coverage data...
[JaCoCo plugin] **/*.exec;/**/*.classes;/**/*.src/main/java; locations are configured
[JaCoCo plugin] Number of found exec files for pattern **/*.exec: 0
[JaCoCo plugin] Saving matched execfiles:
[JaCoCo plugin] Saving matched class directories for class-pattern: **/*.classes:
[JaCoCo plugin] - C:\ProgramData\Jenkins\workspace\software_1\target\classes 3 files
[JaCoCo plugin] Saving matched source directories for source-pattern: **/*.src/main/java:
[JaCoCo plugin] Source Inclusions: **/*.java,**/*.groovy,**/*.kt,**/*.kts
[JaCoCo plugin] Source Exclusions:
[JaCoCo plugin] - C:\ProgramData\Jenkins\workspace\software_1\src/main/java 3 files
[JaCoCo plugin] Loading inclusions files..
[JaCoCo plugin] inclusions: []
[JaCoCo plugin] exclusions: []
[JaCoCo plugin] Thresholds: JacocoHealthReportThresholds [minClass=0, maxClass=0, minMethod=0, maxMethod=0, minLine=0, maxLine=0, minBranch=0, maxBranch=0, minInstruction=0, maxInstruction=0, minComplexity=0,
maxComplexity=0]
[JaCoCo plugin] Publishing the results..
[JaCoCo plugin] Loading packages..
[JaCoCo plugin] Done.
[JaCoCo plugin] Overall coverage: class: 0.0, method: 0.0, line: 0.0, branch: 0.0, instruction: 0.0, complexity: 0.0
Finished: SUCCESS
```

1 project(s)

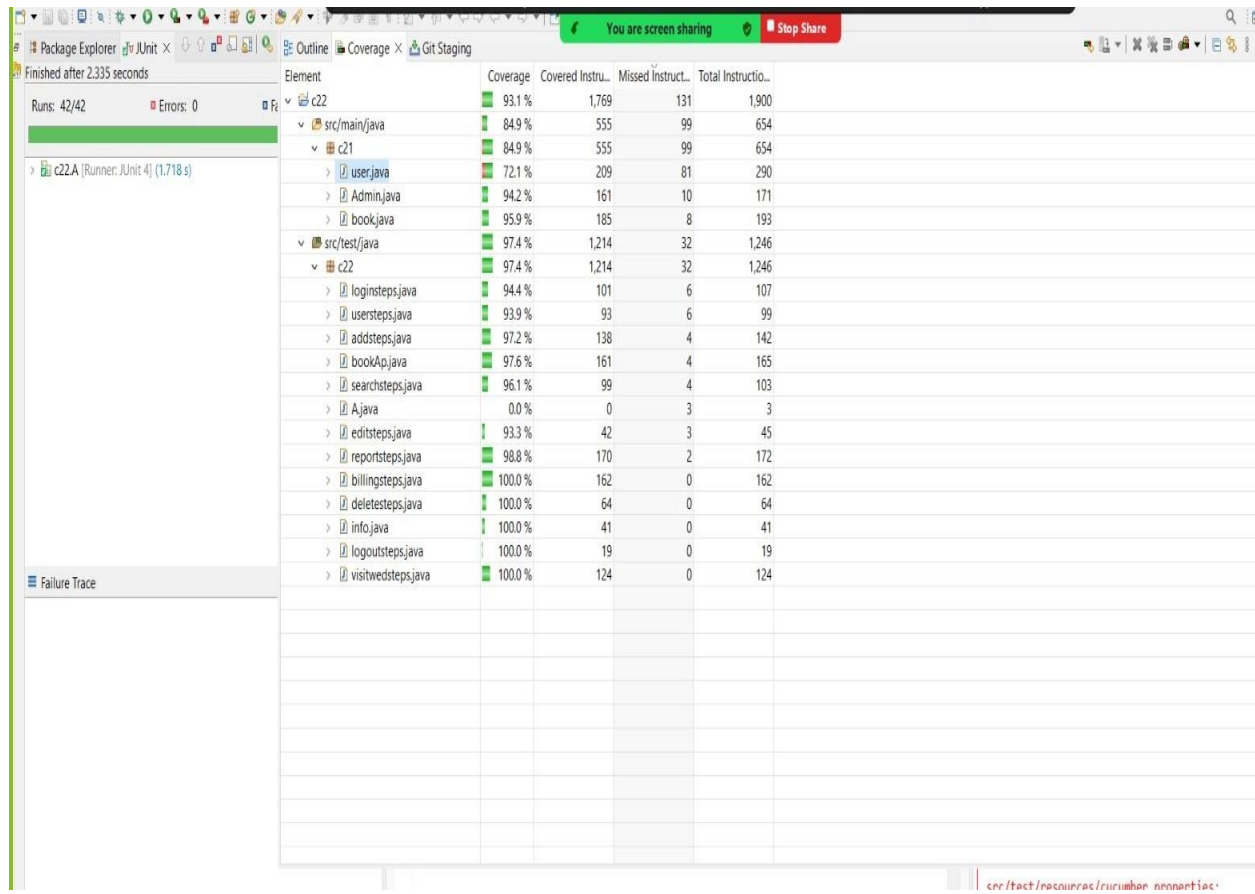


c22

Passed

The coverage on eclipse

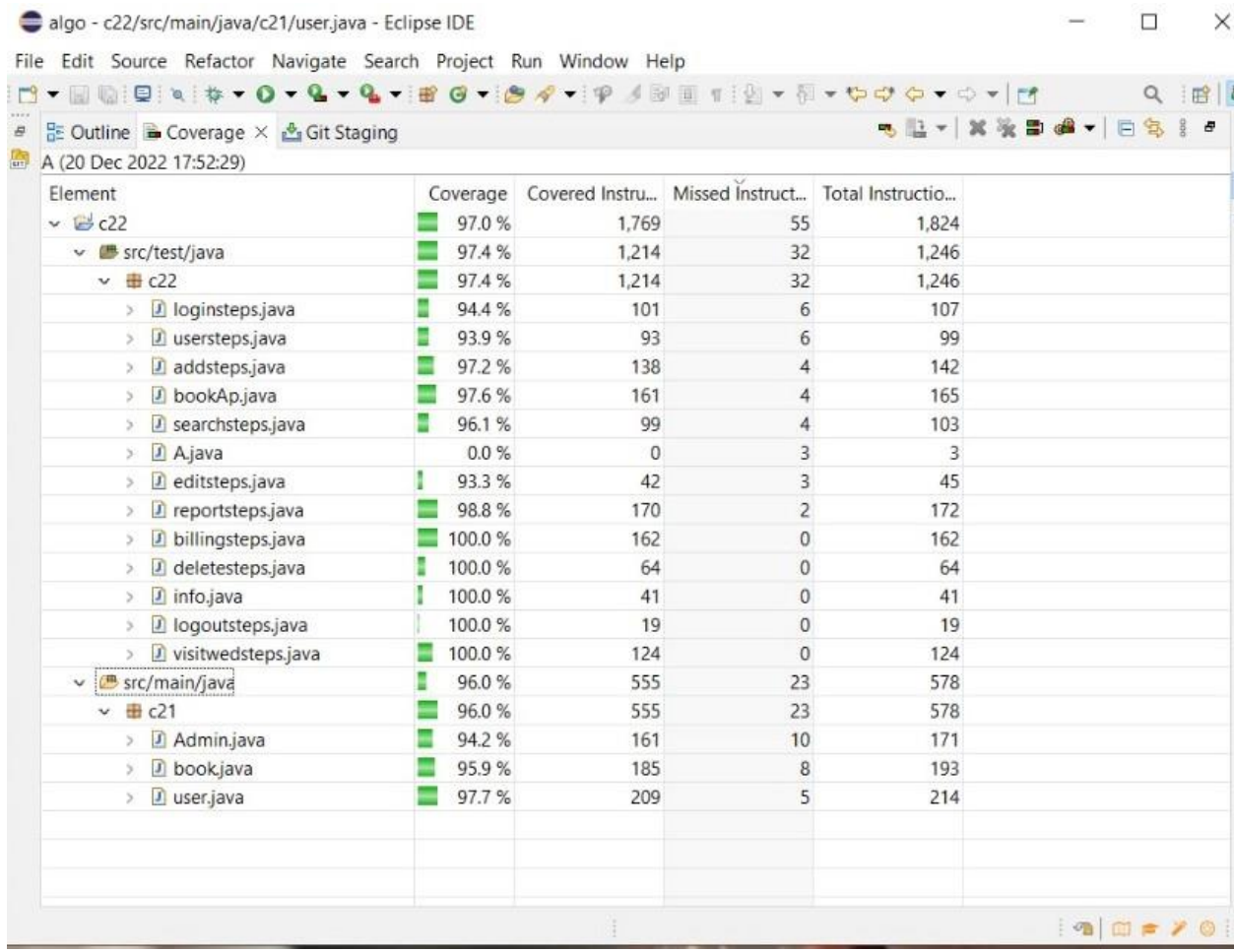
->first :before any edit



Element	Coverage	Covered Instru.	Missed Instruct.	Total Instructio...
Finished after 2.335 seconds				
Runs: 42/42 Errors: 0				
c22	93.1 %	1,769	131	1,900
src/main/java	84.9 %	555	99	654
c21	84.9 %	555	99	654
user.java	72.1 %	209	81	290
Admin.java	94.2 %	161	10	171
book.java	95.9 %	185	8	193
src/test/java	97.4 %	1,214	32	1,246
c22	97.4 %	1,214	32	1,246
loginsteps.java	94.4 %	101	6	107
usersteps.java	93.9 %	93	6	99
addsteps.java	97.2 %	138	4	142
bookAp.java	97.6 %	161	4	165
searchsteps.java	96.1 %	99	4	103
A.java	0.0 %	0	3	3
editsteps.java	93.3 %	42	3	45
reportsteps.java	98.8 %	170	2	172
billingsteps.java	100.0 %	162	0	162
deletesteps.java	100.0 %	64	0	64
info.java	100.0 %	41	0	41
logoutsteps.java	100.0 %	19	0	19
visitwedsteps.java	100.0 %	124	0	124

We make some edit on user.java which the coverage was 72.1% .

->second :after the edit



algo - c22/src/main/java/c21/user.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

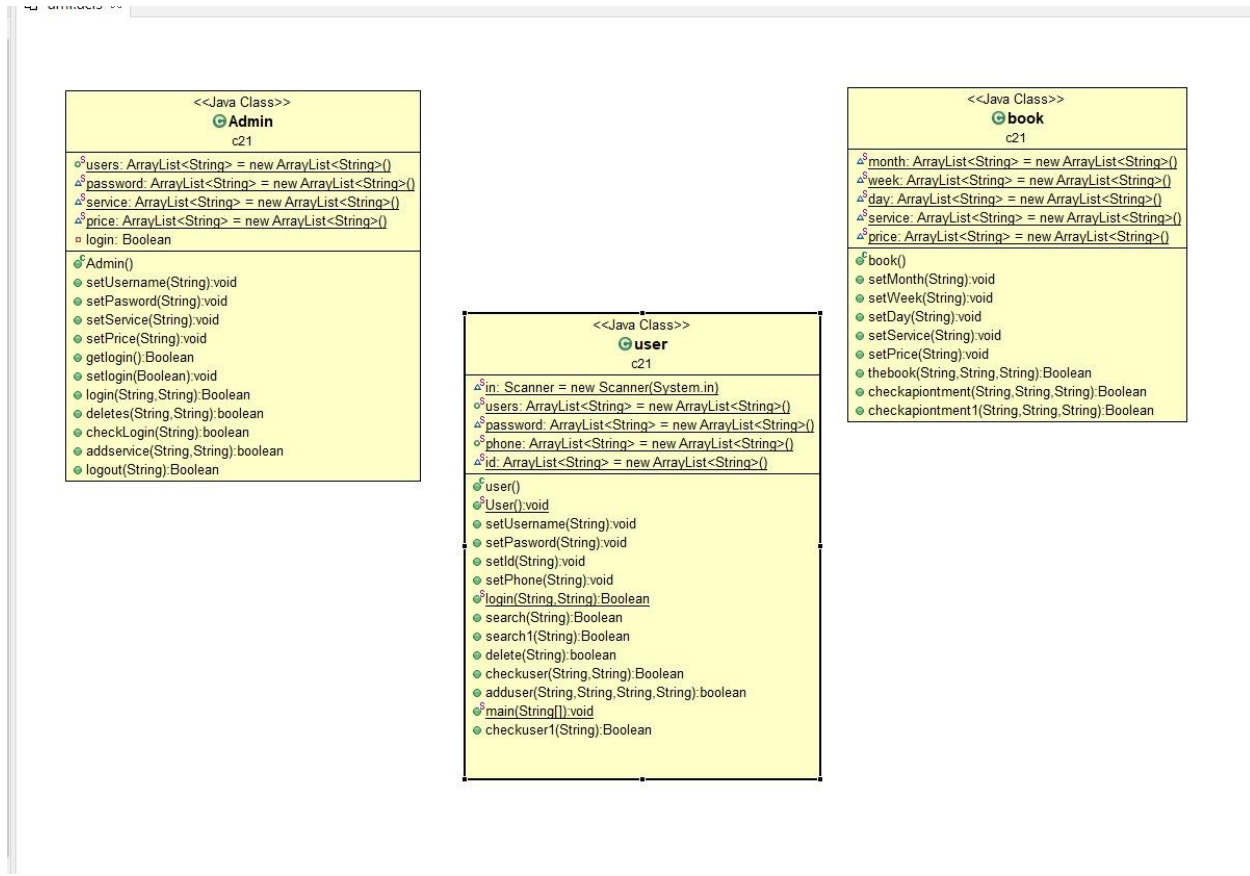
Outline Coverage X Git Staging

A (20 Dec 2022 17:52:29)

Element	Coverage	Covered Instru...	Missed Instruct...	Total Instructio...
▼ c22	97.0 %	1,769	55	1,824
▼ src/test/java	97.4 %	1,214	32	1,246
▼ c22	97.4 %	1,214	32	1,246
> loginsteps.java	94.4 %	101	6	107
> usersteps.java	93.9 %	93	6	99
> addsteps.java	97.2 %	138	4	142
> bookAp.java	97.6 %	161	4	165
> searchsteps.java	96.1 %	99	4	103
> A.java	0.0 %	0	3	3
> editsteps.java	93.3 %	42	3	45
> reportsteps.java	98.8 %	170	2	172
> billingsteps.java	100.0 %	162	0	162
> deletesteps.java	100.0 %	64	0	64
> info.java	100.0 %	41	0	41
> logoutsteps.java	100.0 %	19	0	19
> visitwedsteps.java	100.0 %	124	0	124
▼ src/main/java	96.0 %	555	23	578
▼ c21	96.0 %	555	23	578
> Admin.java	94.2 %	161	10	171
> book.java	95.9 %	185	8	193
> user.java	97.7 %	209	5	214

After the edit on user.java the coverage become 97.7% .

-Apply the uml on our project before any edit:



-Apply the uml on our project after edit:

<<Java Class>>	
User clinici	
↳ in: Scanner = new Scanner(System.in)	
↳ users: ArrayList<String> = new ArrayList<>()	
↳ password: ArrayList<String> = new ArrayList<>()	
↳ phone: ArrayList<String> = new ArrayList<>()	
↳ id: ArrayList<String> = new ArrayList<>()	
↳ User()	
↳ login(String,String): Boolean	
↳ search(String): Boolean	
↳ search1(String): Boolean	
↳ delete(String): boolean	
↳ checkuser(String,String): Boolean	
↳ adduser(String,String,String,String): boolean	
↳ checkuser1(String): Boolean	
↳ getPhone(): ArrayList<String>	
↳ setPhone(ArrayList<String>): void	

<<Java Class>>	
Book clinici	
↳ month: ArrayList<String> = new ArrayList<>()	
↳ week: ArrayList<String> = new ArrayList<>()	
↳ day: ArrayList<String> = new ArrayList<>()	
↳ service: ArrayList<String> = new ArrayList<>()	
↳ price: ArrayList<String> = new ArrayList<>()	
↳ Book()	
↳ thebook(String,String,String): Boolean	
↳ checkapointment(String,String,String): Boolean	
↳ checkapointment1(String,String,String): Boolean	

<<Java Class>>	
Admin clinici	
↳ users: ArrayList<String> = new ArrayList<>()	
↳ password: ArrayList<String> = new ArrayList<>()	
↳ service: ArrayList<String> = new ArrayList<>()	
↳ price: ArrayList<String> = new ArrayList<>()	
↳ login: Boolean	
↳ Admin()	
↳ getlogin(): Boolean	
↳ setlogin(Boolean): void	
↳ login(String,String): Boolean	
↳ deletes(String,String): boolean	
↳ checkLogin(String): boolean	
↳ addservice(String,String): boolean	
↳ logout(String): Boolean	