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## Maintenance Project

### Phase1

1) **Link to GitHub Repo:**

<https://github.com/nadinehazem200/University-Time-Tabling>

2) **Link to ticketing system:**

<https://trello.com/w/universitytimetablingcode>

3) **Static analysis report:**

sonarqube

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localhost:9000/dashboard?id=University-Timetableing

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Version 4.8

Overview Issues Security Hotspots Measures Code Activity Project Settings Project Information

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QUALITY GATE STATUS

Passed

All conditions passed.

MEASURES

New Code Overall Code

969 Bugs Reliability E

136 Vulnerabilities Security E

472 Security Hotspots 0.0% Reviewed Security Review E

24°C مشمس

10:29 PM 5/3/2023

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136 Vulnerabilities Security E

472 Security Hotspots 0.0% Reviewed Security Review E

1301d Debt 51k Code Smells Maintainability A

0.0% Coverage on 334k Lines to cover Unit Tests

12.6% Duplications on 543k Lines 6.2k Duplicated Blocks

ACTIVITY

Choose graph type

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10:30 PM 5/3/2023

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localhost:9000/project/issues?resolved=false&types=BUG&id=University-Timetableing

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My Issues All

Filters Clear All Filters

Issues in new code

Type BUG Clear

Bug 969

Vulnerability 136

Code Smell 51k

Press Ctrl to add to selection

Severity

Blocker 36 Minor 362

Critical 25 Info 0

Major 546

Scope

Resolution

24°C الرياح العاتية قربنا

Bulk Change 1 / 969 issues 17d effort

Remove the boxing to "Long"; The argument is already of the same type. 7 hours ago L198 clumsy

A "NullPointerException" could be thrown; "tx" is nullable here. 7 hours ago L229 cert, cwe

JavaSource/org/unitime/timetable/action/InstructionalOfferingModifyAction.java

Remove the unboxing of "isReadOnly". 7 hours ago L286 clumsy

JavaSource/org/unitime/timetable/action/InstructorInfoEditAction.java

A "NullPointerException" could be thrown; "d" is nullable here. 7 hours ago L216 cert, cwe

JavaSource/org/unitime/timetable/action/InstructorListUpdateAction.java

A "NullPointerException" could be thrown; "assigned" is nullable here. 7 hours ago L193 cert, cwe

University - Issues - SonarQube x New tab x WhatsApp x +

localhost:9000/project/issues?resolved=false&types=VULNERABILITY&id=University-Timetableing

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My Issues All

Filters Clear All Filters

Issues in new code

Type VULNERABILITY Clear

Bug 969

Vulnerability 136

Code Smell 51k

Press Ctrl to add to selection

Severity

Blocker 32 Minor 100

Critical 4 Info 0

Major 0

Scope

Resolution

24°C مشمس

Bulk Change 1 / 136 issues 5d 2h effort

JavaSource/.../unitime/commons/hibernate/blob/XmlBlobType.java

Disable access to external entities in XML parsing. 7 hours ago L59 cwe, owasp-a4

Disable access to external entities in XML parsing. 7 hours ago L146 cwe, owasp-a4

JavaSource/.../unitime/commons/hibernate/blob/XmlClobType.java

Disable access to external entities in XML parsing. 7 hours ago L58 cwe, owasp-a4

Disable access to external entities in XML parsing. 7 hours ago L140 cwe, owasp-a4

JavaSource/.../unitime/commons/hibernate/util/DatabaseUpdate.java

Disable access to external entities in XML parsing. 7 hours ago L75 cwe, owasp-a4

#### 4) Description of what the project does and it's techniques:

-To describe the project, we use Bottom-up maintenance technique as we go through detailed code to get information then, we read the overall description. Bottom-up approach is technique which is suitable for usage when we (programmers) are unfamiliar with the code/application.

-The project describes university timetabling, supports courses and exam timetables. It describes event action and checks permission of any authority and check requests.

The system consists of 3 main categories (features): Commons , localization and timetable. Commons consists of some of java classes as CalenderTimeZone which determines the time of lectures and the schedule, while localization consists of 2 categories which are impl and messages (security and course messages).

-In the project, it checks the enrollment of the students ,giving time table model, it also checks the validity of jenrl constraints from student

enrollments, organize giving lectures and saves xml document.

### 5) Description for the feature/bug fix:

-In the project, we are going to start on 2 bugs, The first bug is (could not translate to xml format) which is:

Steps to reproduce: click on convert these to XML parsing button.

Actual result: Disable access to external entities in XML parsing.

Expected result: done.

, The second bug is (A null pointer exception would be thrown "d" is nullable here .) which is:

Steps to reproduce: click on the button.

Actual result: throw an exception.

Expected result: a string cannot be null.