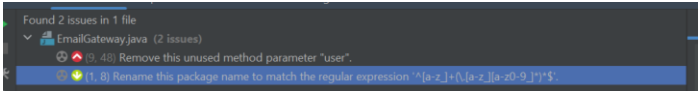
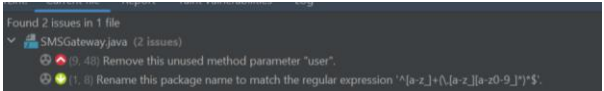
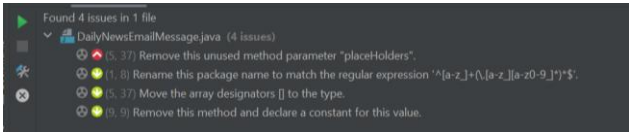
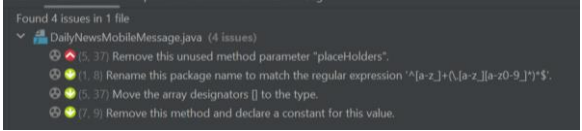
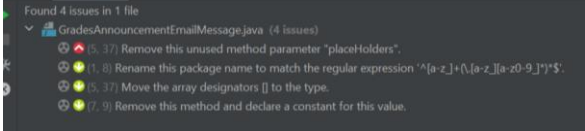
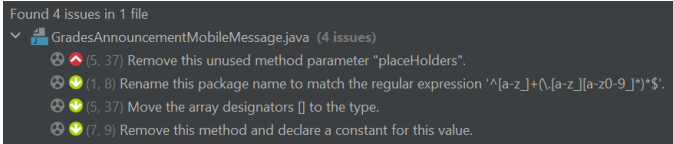


Lab Assignment

Team Members:

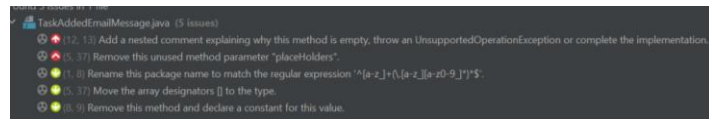
Name	ID
Nouran ahmed abdelhady	20196098
Randa Zyad	20196095
Mariam Mohamed	20196053
Sylvia Sami	20196027

1- Static Analysis Report for current code:

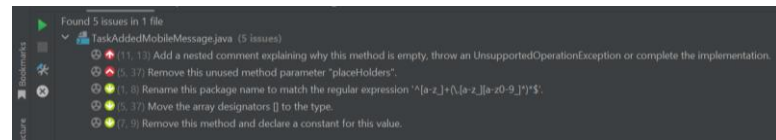
Class	SonarQube analysis
Class EmailGateway	
Class SMSGateway	
Class DailyNewsEmailMessage	
Class DailyNewsMobileMessage	
Class Grade AnnouncementEmailMessage	
Class Grade AnnouncementMobileMessage	

Software Maintenance & Evolution

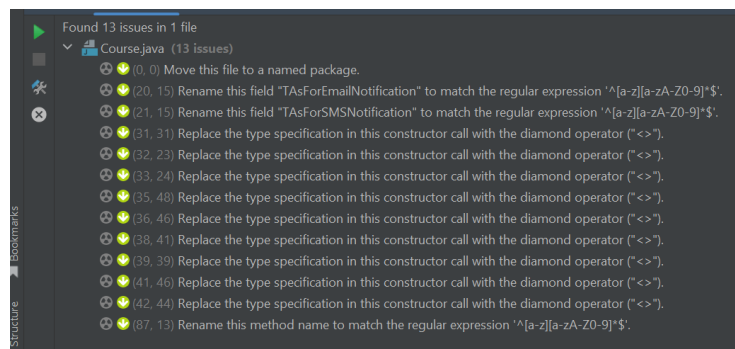
Class TaskAddedEmailMessage



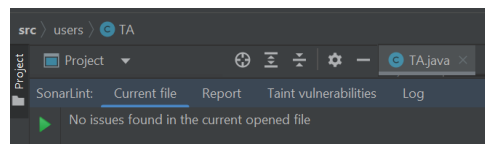
Class TaskAddedMobileMessage



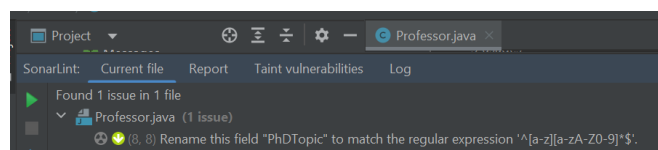
Class Course



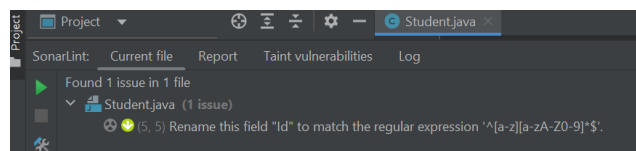
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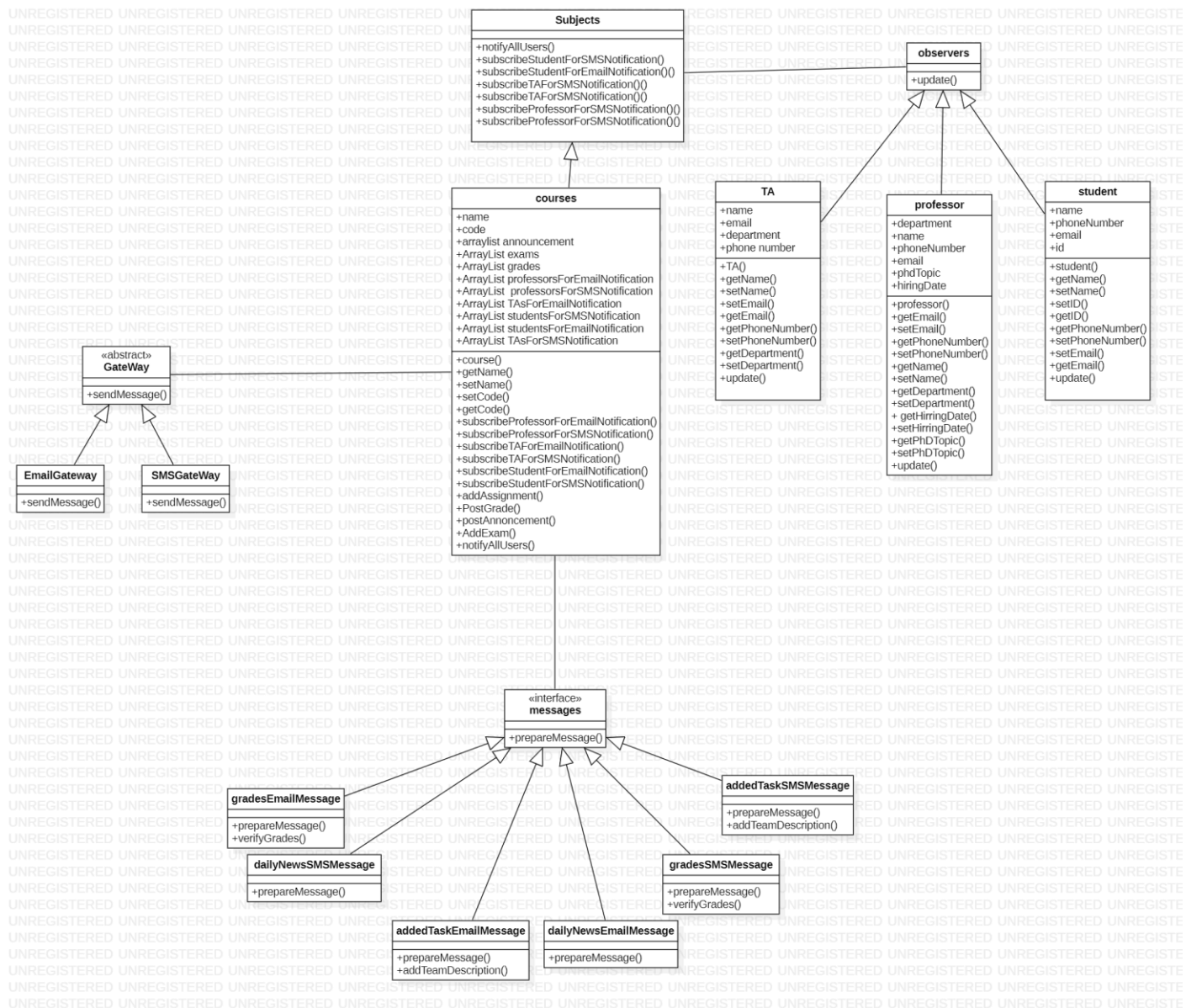


Class professors



Class student



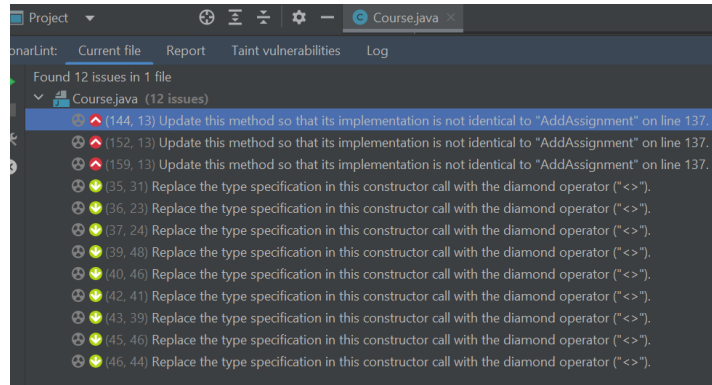
2-Class Diagram after Refactoring:**Design Patterns used:****1-observer pattern****2-strategy pattern**

3-Static Analysis Report after refactoring:

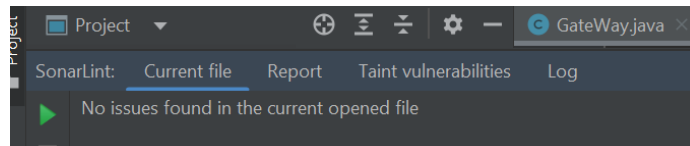
Class	SonarQube analysis
Class EmailGateway	
Class SMSGateway	
Class DailyNewsEmailMessage	
Class DailyNewsMobileMessage	
Class Grade AnnouncementEmailMessage	
Class Grade AnnouncementMobileMessage	
Class TaskAddedEmailMessage	
Class TaskAddedMobileMessage	

Software Maintenance & Evolution

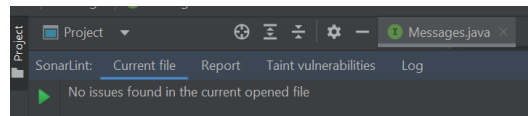
Class Course



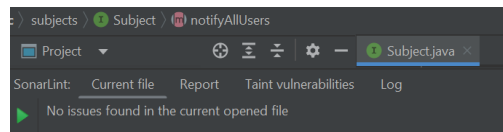
Class gateway



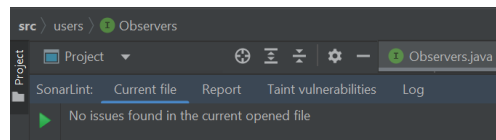
Class messages



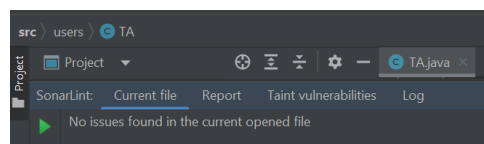
Class subjects



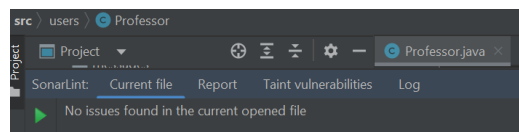
Class Observers



Class Ta

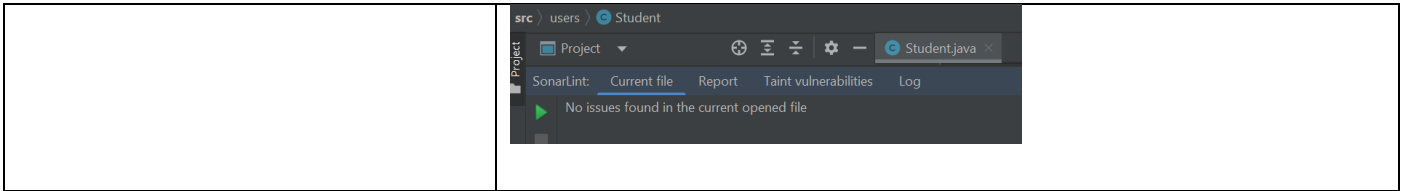


Class professor



Class student

Software Maintenance & Evolution



4- GitHub Repository Link:

<https://github.com/randarihany/notification>

5-Trello Link:

<https://trello.com/b/AF9Xuf5T/notification-project>