Álvaro Suárez del Cueto

Analysis and Design Document

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Revision History

Date	Version	Description	Author
04/04/2018	1.0	Added specifications	Alvaro
25/04/2018	1.1	Iteration 1.2	Álvaro

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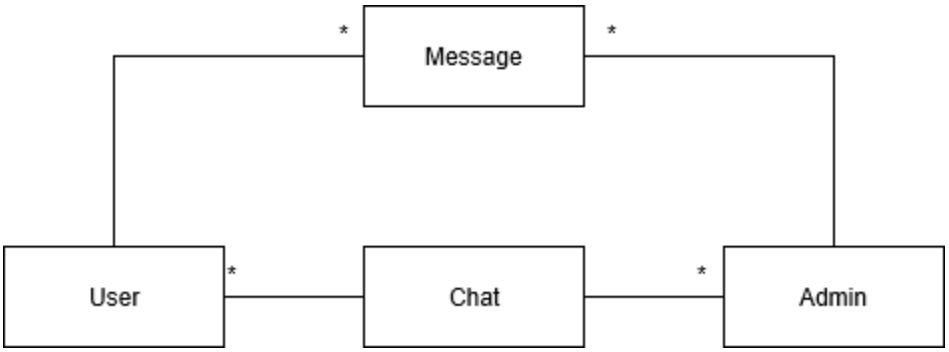
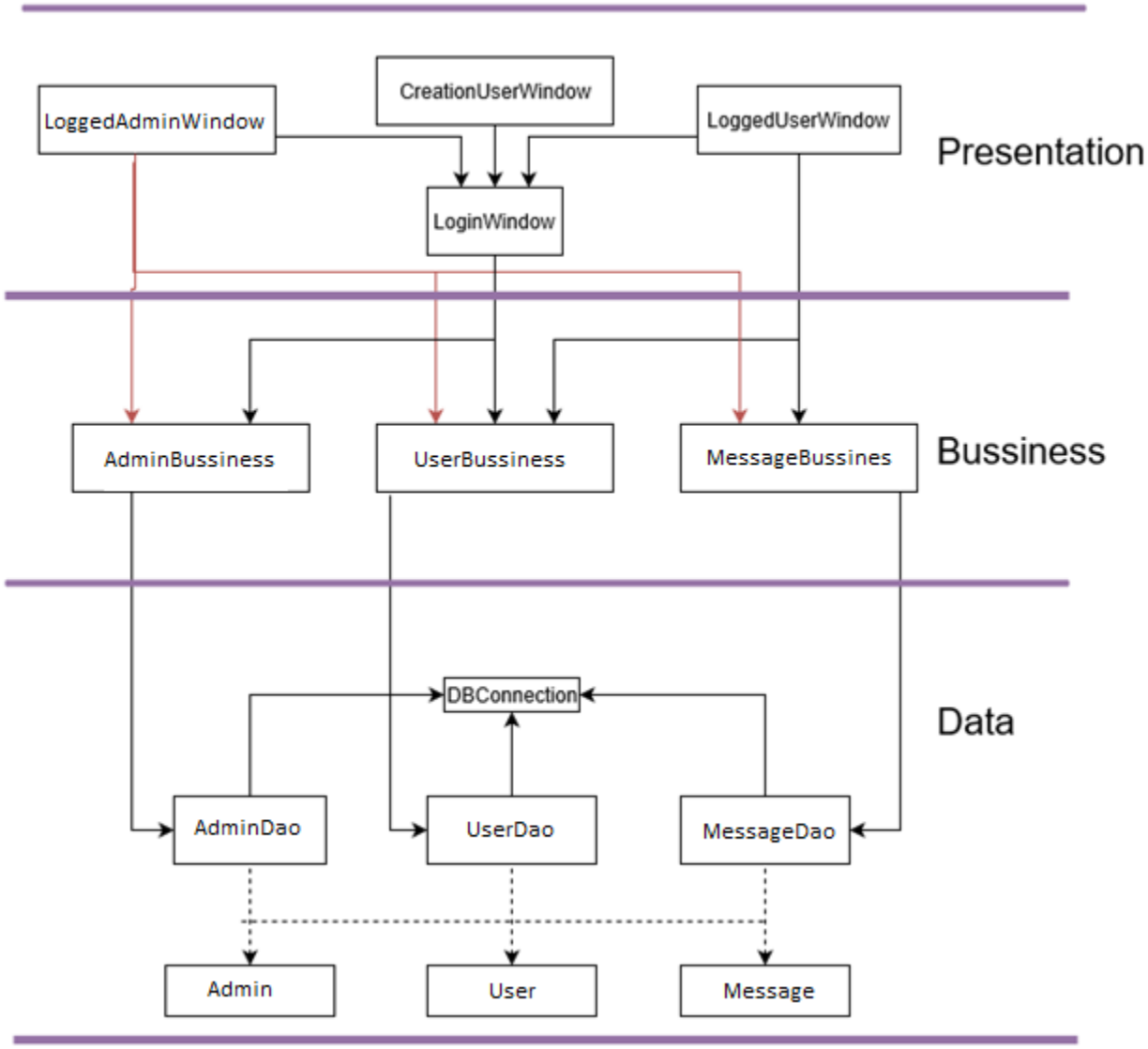
I. Project Specification

Application for tracking suspicious behavior in online chats.

II. Elaboration – Iteration 1.1

1. Domain Model

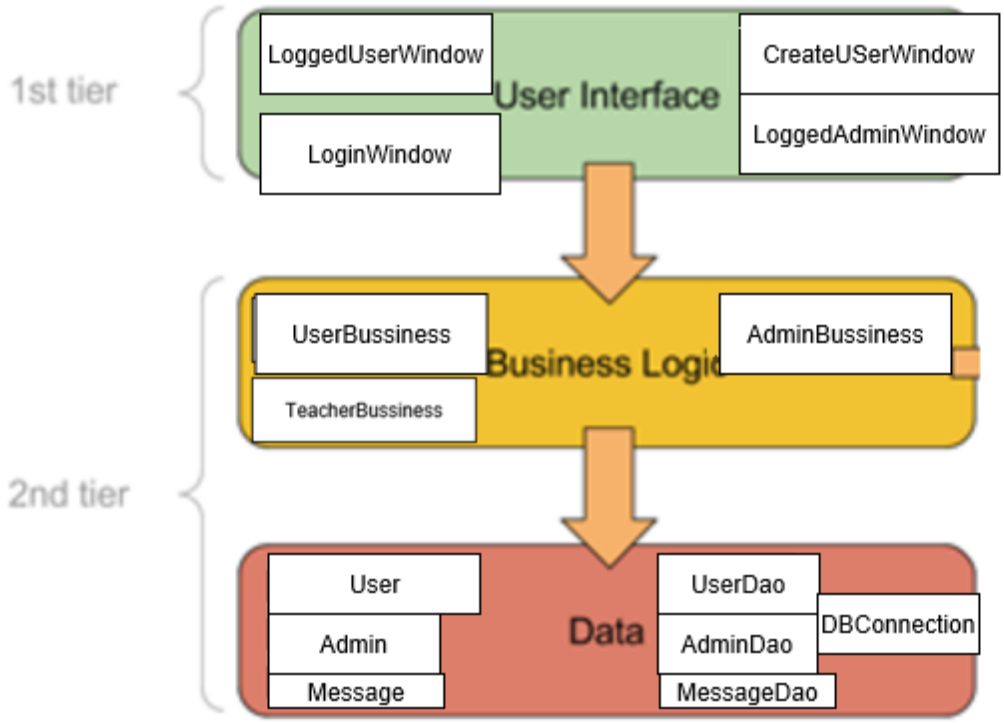




2. Architectural Design

2.1 Conceptual Architecture

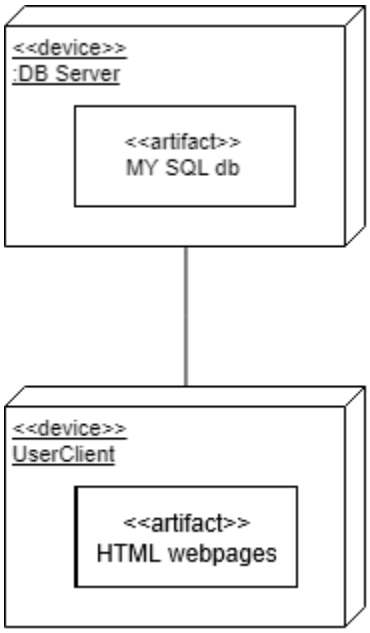
The system will follow the Layered architecture:



The user interface will be created using HTML webpages, the business logic the classes and their correspondent behavior which will be to allow the webpages access the data from the data layer, the business layer will access the services from the data layer which will perform CRUD operations.

2.2 Package Design

2.3 Component and Deployment Diagrams



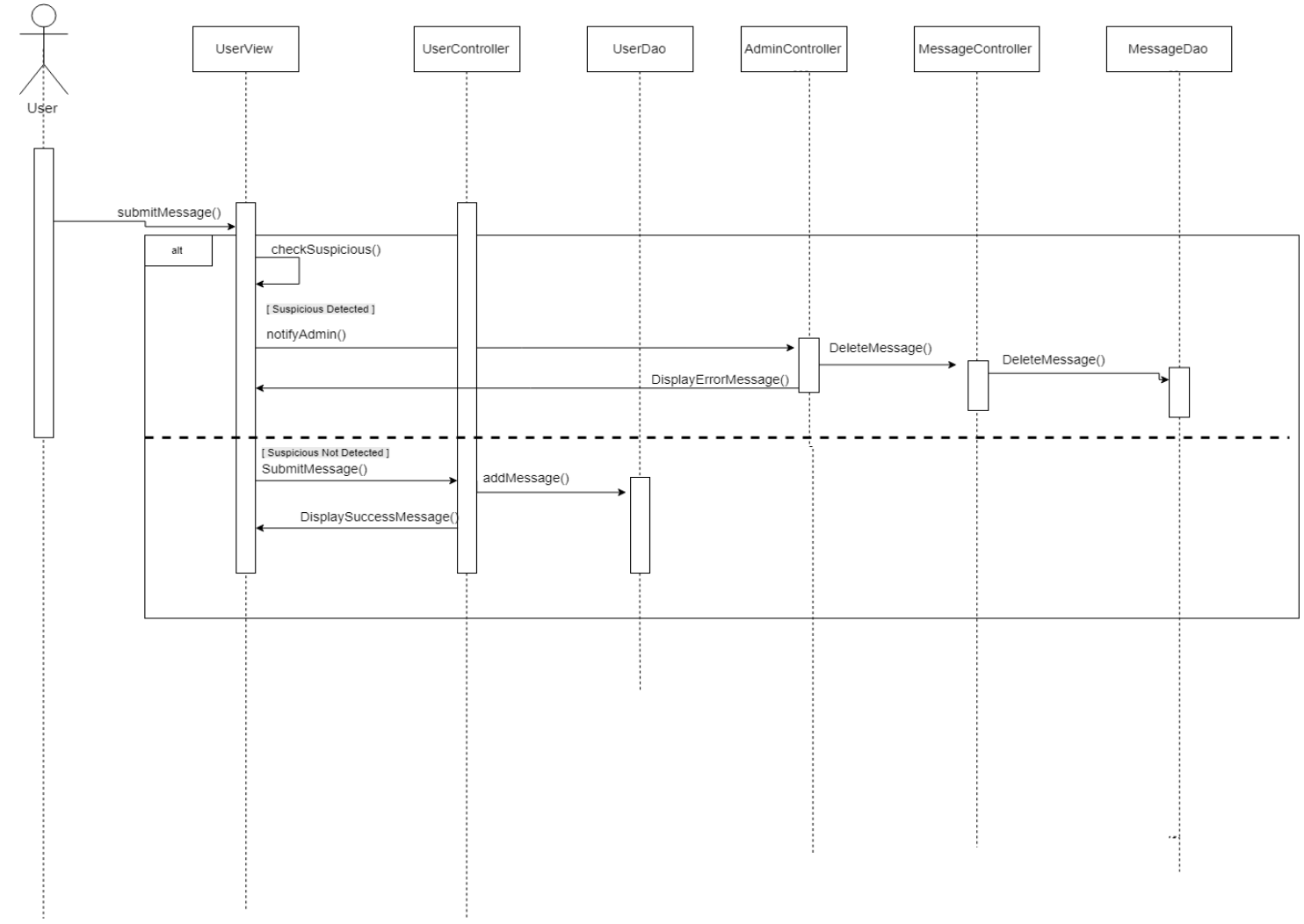
III. Elaboration – Iteration 1.2

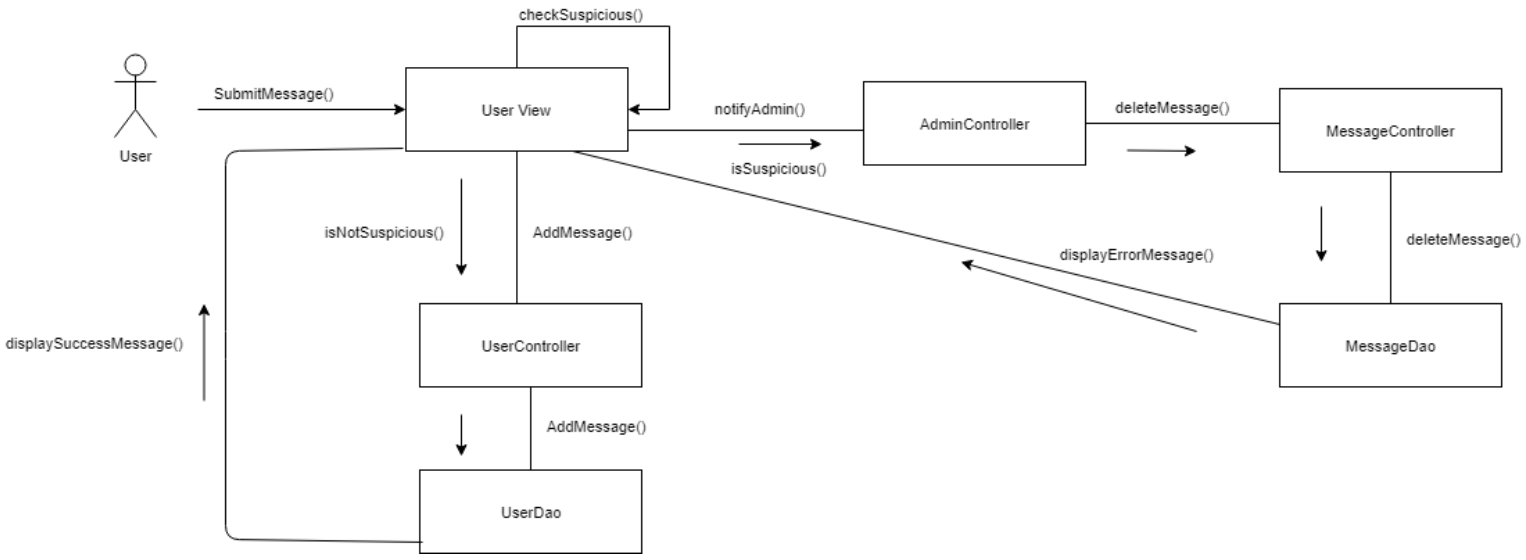
1. Design Model

1.1 Dynamic Behavior

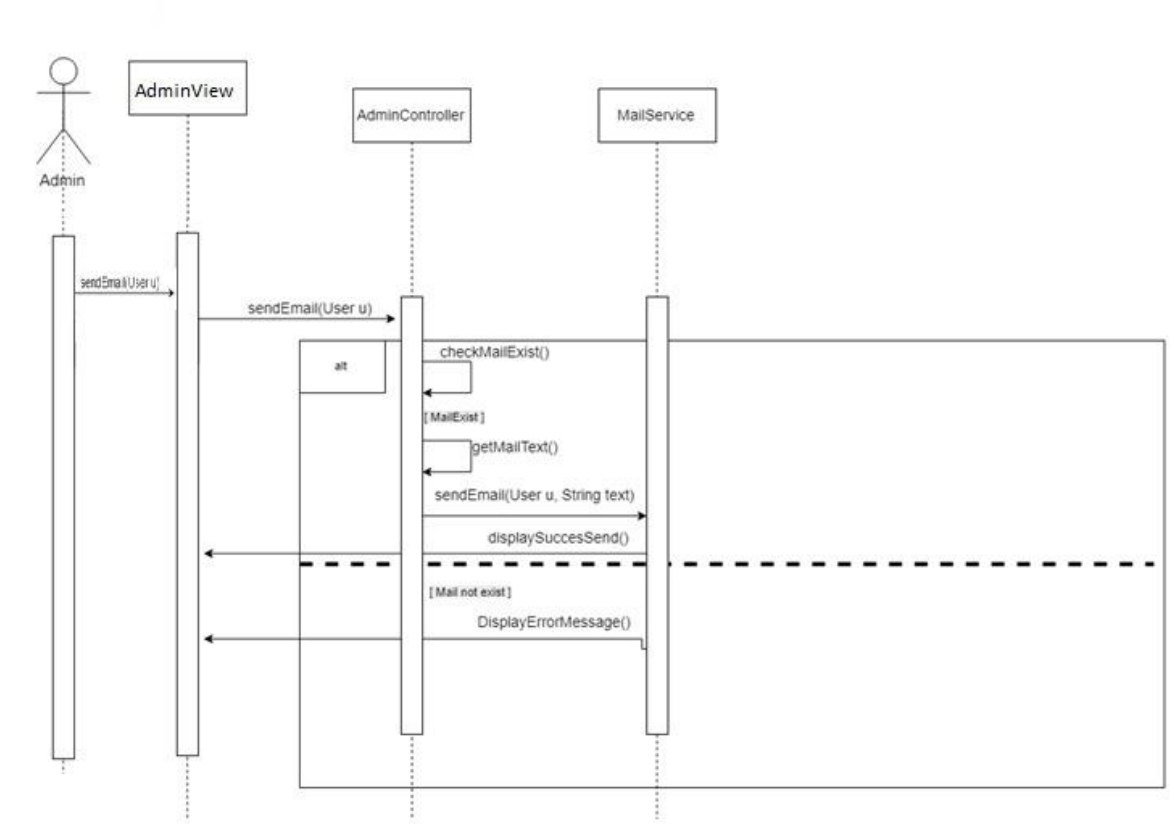
[Create the interaction diagrams (1 sequence, 1 communication diagrams) for 2 relevant scenarios]

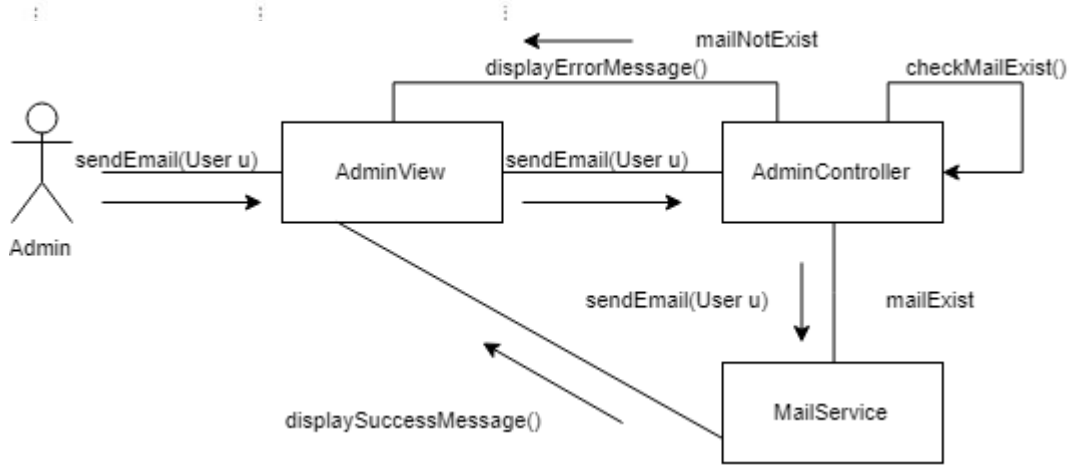
Scenario Submit Message:


User
UserView
UserController
UserDao
AdminController
MessageController
MessageDao
submitMessage()
alt
checkSuspicious()
[Suspicious Detected]
notifyAdmin()
DeleteMessage()
DeleteMessage()
DisplayErrorMessage()
[Suspicious Not Detected]
SubmitMessage()
addMessage()
DisplaySuccessMessage()

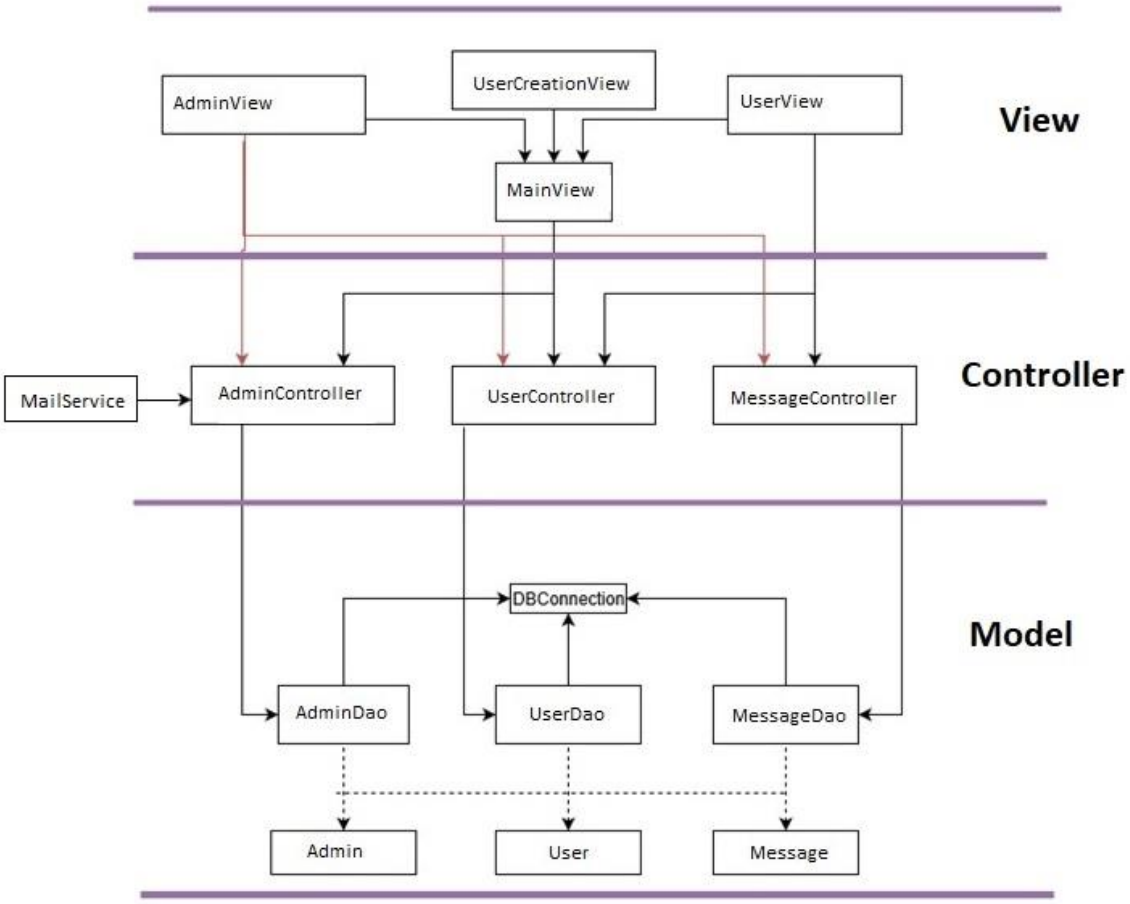

checkSuspicious()
User
SubmitMessage()
User View
notifyAdmin()
AdminController
deleteMessage()
MessageController
isSuspicious()
isNotSuspicious()
AddMessage()
displayErrorMessage()
deleteMessage()
displaySuccessMessage()
UserController
MessageDao
AddMessage()
UserDao

Scenario Send Email:



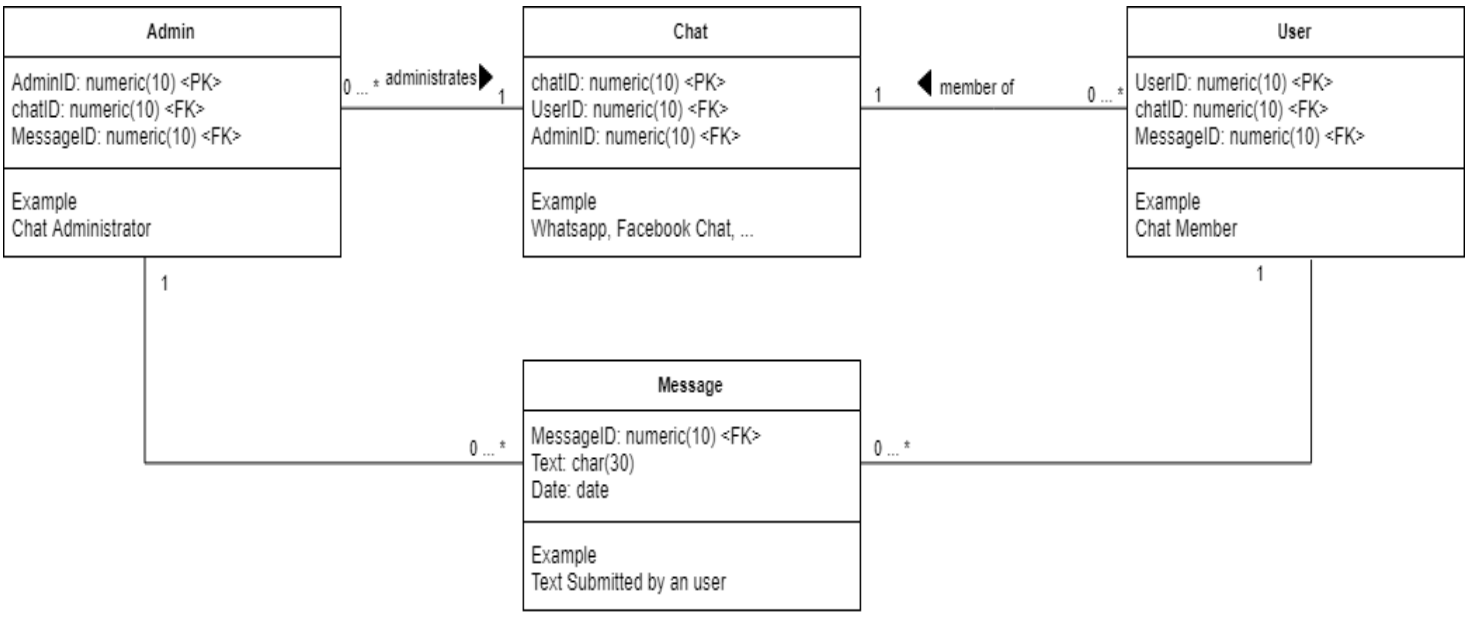


1.2 Class Design



I will apply the Observer Design Pattern in order to notify the administrators (sending them an email) when a suspicious comment is made.

2. Data Model



3. Unit Testing

Unit testing will be used.

Example:

Test Scenario: Validate the login page

Test Case 1: Enter a valid username and password
Test Case 2: create new account
Test Case 3: Enter invalid credentials

IV. Elaboration – Iteration 2

1. Architectural Design Refinement

[Refine the architectural design: conceptual architecture, package design (consider package design principles), component and deployment diagrams. Motivate the changes that have been made.]

2. Design Model Refinement

[Refine the UML class diagram by applying class design principles and GRASP; motivate your choices. Deliver the updated class diagrams.]

V. Construction and Transition

1. System Testing

[Describe how you applied integration testing and present the associated test case scenarios.]

2. Future improvements

[Present future improvements for the system]

VI. Bibliography