Project Name

Social Network

Course Name:

Software Engineering 1

Leader Name:

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SDS Doc Title :

Social Network project Specifications

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CS251: Phase 2 – FCI Socialist
Project: Social Network API

Software Design Specification

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Document Purpose and Audience

Purpose:

This document will outline in detail the software architecture and design for the social network system .This document will provide several views of the system's design in order to facilitate communication and understanding of the system.

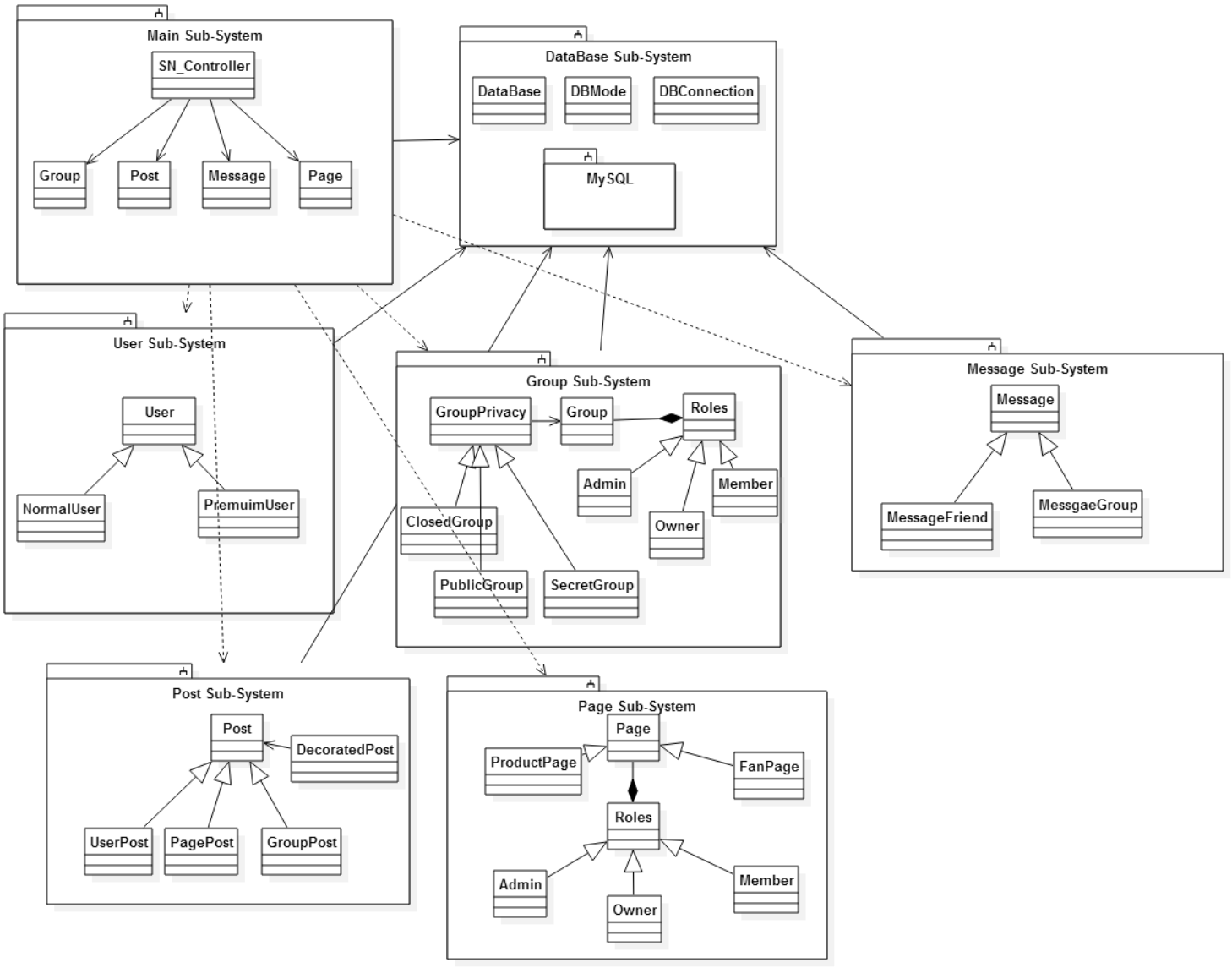
Audience:

This document is written on a technical level to address the technical department of the customer that will continue the system.

Software Design Specification

System Models

System Decomposition



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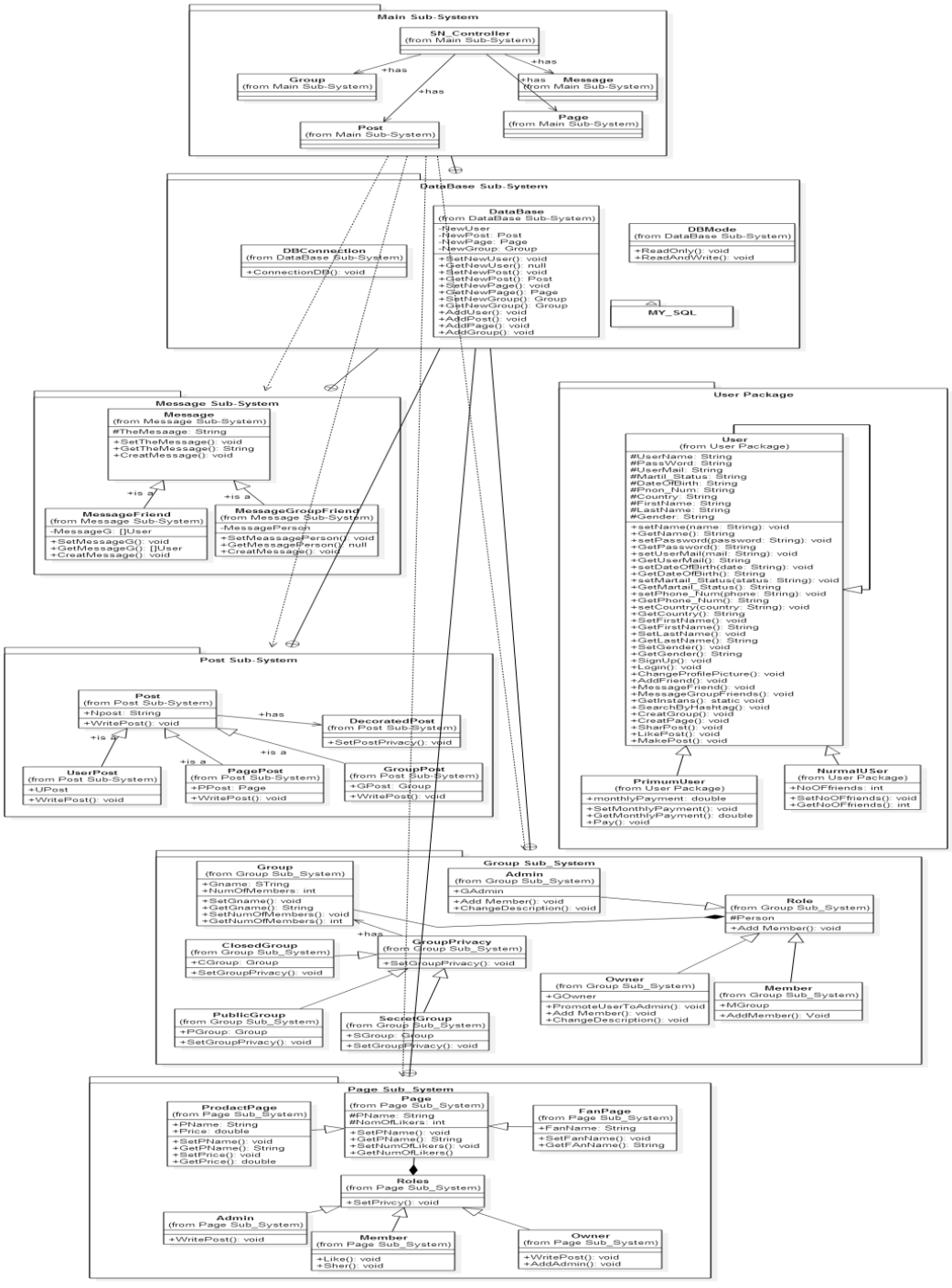
Class diagram:



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Class ID	Class Name	Subsystem ID	Description
1	DB_Connection	P1	Connect between database and user.
2	DB_Mode	P1	Determine if read and write or read only from database .
3	DataBase	P1	Contain information about user and posts that make ability to search about friend or hashtag.
4	User	P2	Contain all information about user.
5	UserFunc	P2	Contain function that user can do it in system .
6	UserPost	P3	User can write post in his home page.
7	PagePost	P3	User can write post in page he liked it or he is the admin for this page.
8	GroupPost	P3	User can write post in a group that he is a member on it or he is the admin for this group.
9	CreatPage	P4	User can create page.
10	CreateGroup	P4	User can create Group.
10.1	Public	P4	User can create Group and all people can see it.
10.2	Private	P4	User can create Group and no one can see it if he/she not a member .
10.3	Closed	P4	User can create Group and no one can be member until admin agree .
11	CreateMSG	P4	User can chat to his/her friends .
11.1	MSGfriend	P4	User can chat to one of his/her friend .
11.2	MSGGroup	P4	User can chat to group of his/her friend

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Important Algorithm

Search Algorithms that will be used:

Binary search algorithms.

First -> Search for Friend:

Steps:

Start-

- Create search function that will return user's friend account

Void searchFriend (string UserName)

-user should write the name of user's friend or E-mail

Then

-Developer will search in the database for the account of user's friend name or E-mail.

-IF

Developer found the account .

-Then

This account will return back to the user.

-Else

-There will be a message that tells the user that system didn't find this account.

- End

Software Design Specification

Second -> Search for Hashtag :

Steps:

Start

- Create function that will search for specific Hashtag .

Void SerachHash (string hash_phrase)

- User should write the symbol # following by the unspaced phrase .

- Developer will search in the database for all posts containing this hashtag .

-IF

Developer found posts containing this hashtag . .

-Then

This posts will appear to the user..

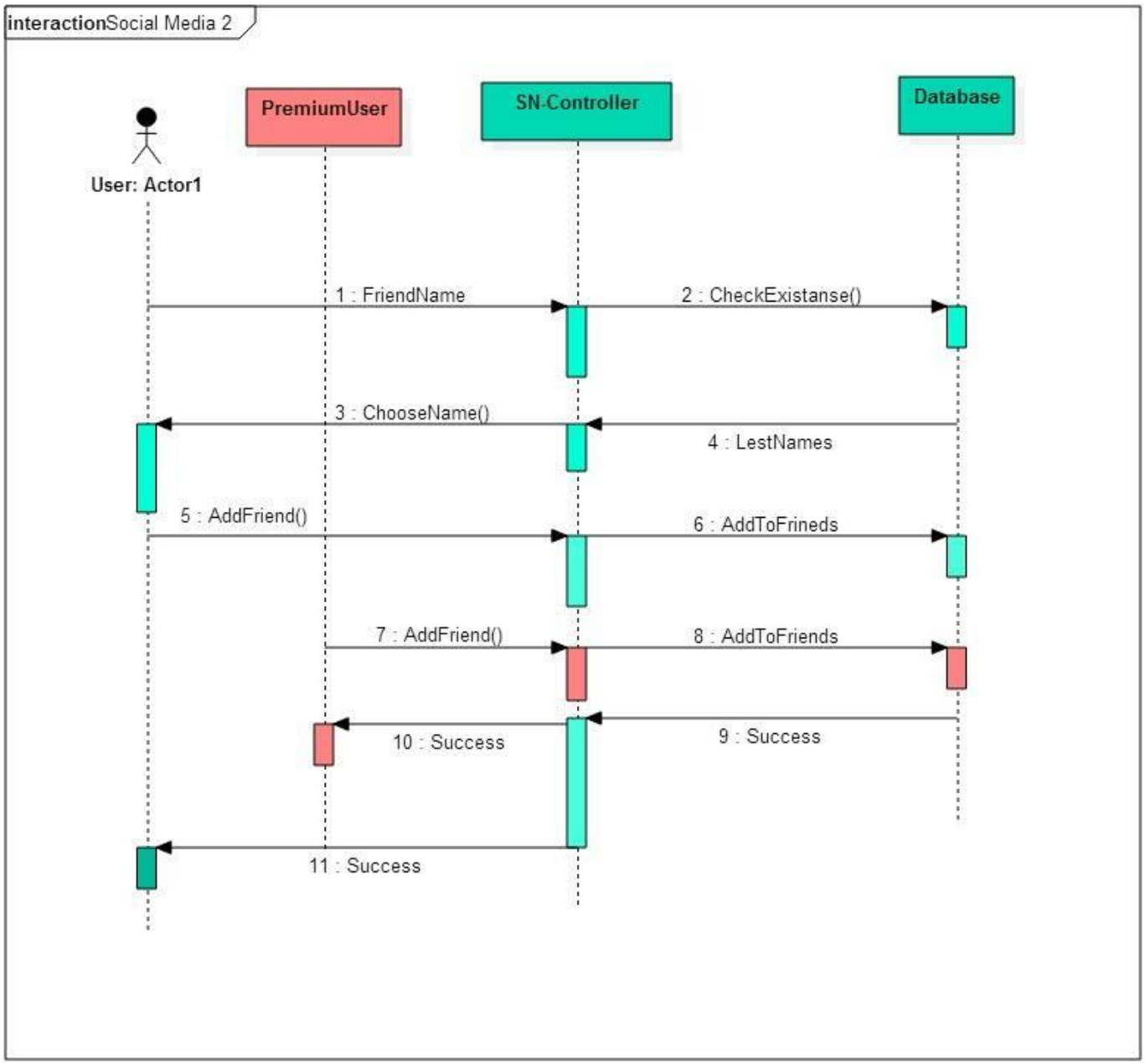
-Else

-There will be a message that tells the user that system didn't find posts containing this hashtag.

End.

Sequence diagrams

Software Design Specification



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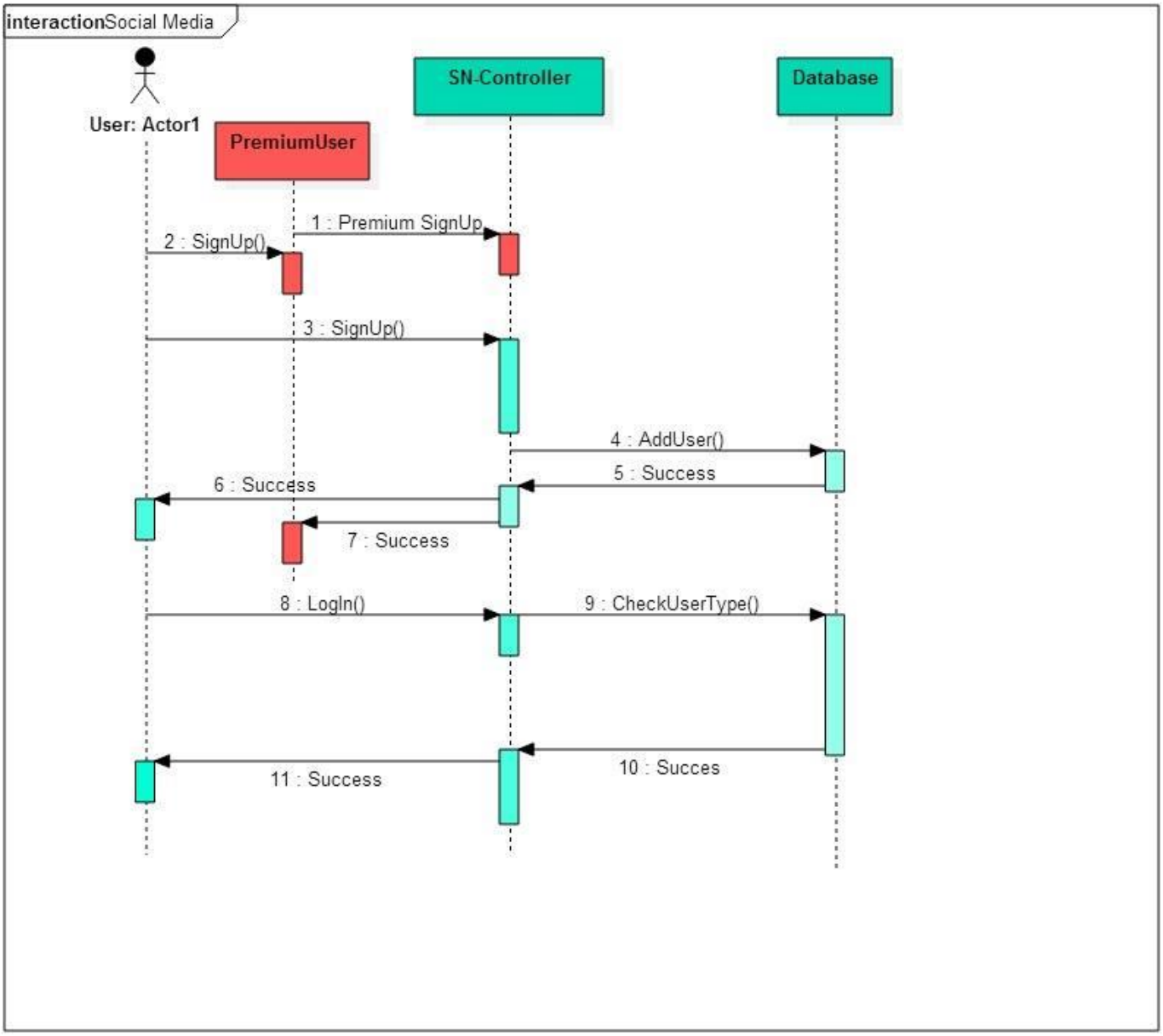
Class - Sequence Usage

Class Name	Sequence Diagrams	Overall used methods
User PremiumUser SN-Controller Database	- 7 Sequence ID for class PremiumUser. - 1,5 sequence ID's for class User. - 2,3,6,8,10,11 sequence ID's for class SN-Controller. - 4,9 for class Database.	- CheckExistanse - ChooseName - AddFriend

Software Design Specification



Class - Sequence Usage

Class Name	Sequence Diagrams	Overall used methods
-User -PremiumUser -SN-Controller -Database	- 1, 2 Sequence ID's for class PremiumUser. - 3,8 sequence ID's for class User. - 4,9,7,11 sequence ID's for class SN-Controller. - 5,10 for class Database.	- SignUp - AddUser - CheckUserType - LogIn

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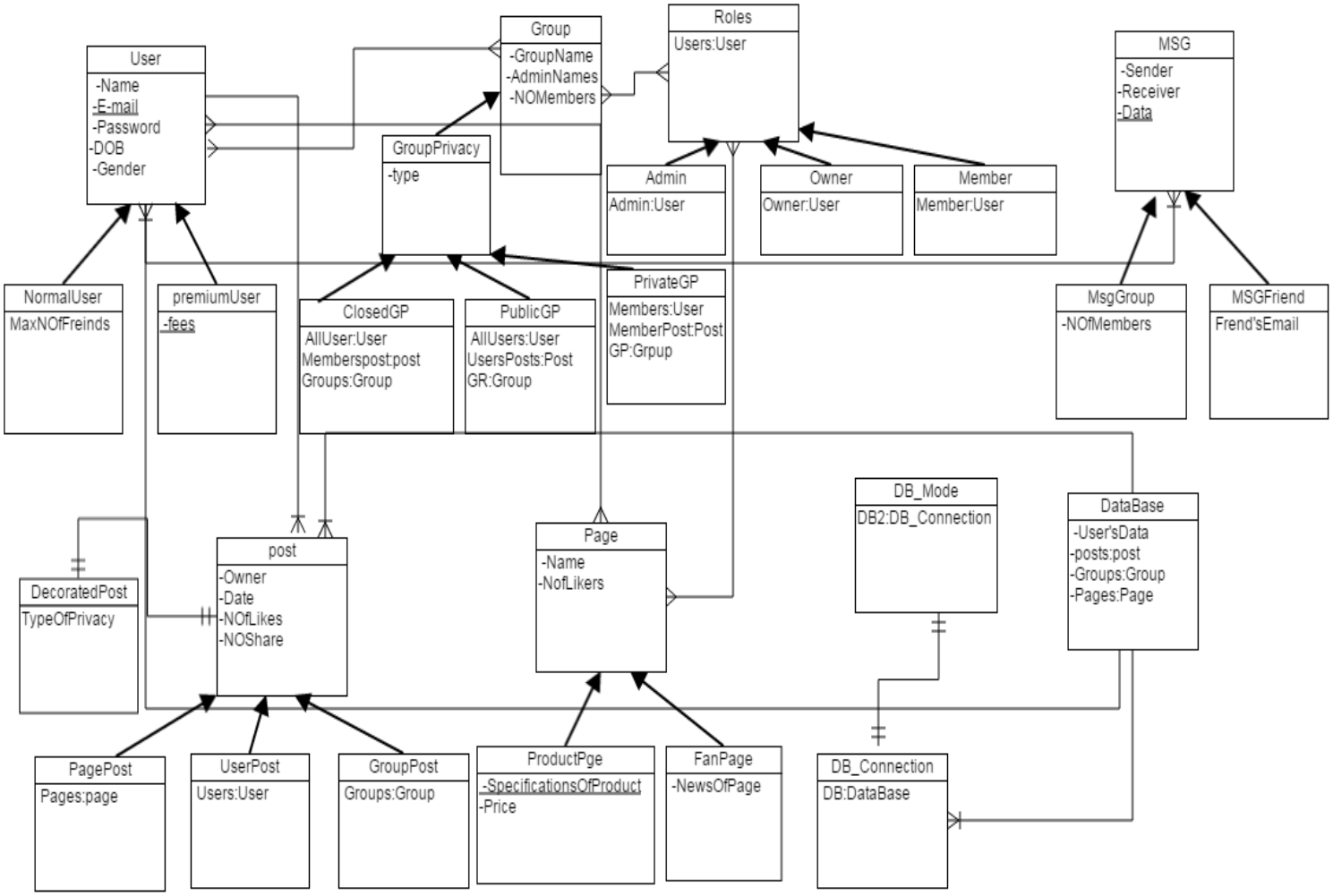
Physical Entity-Relationship Diagram



User Interface Design

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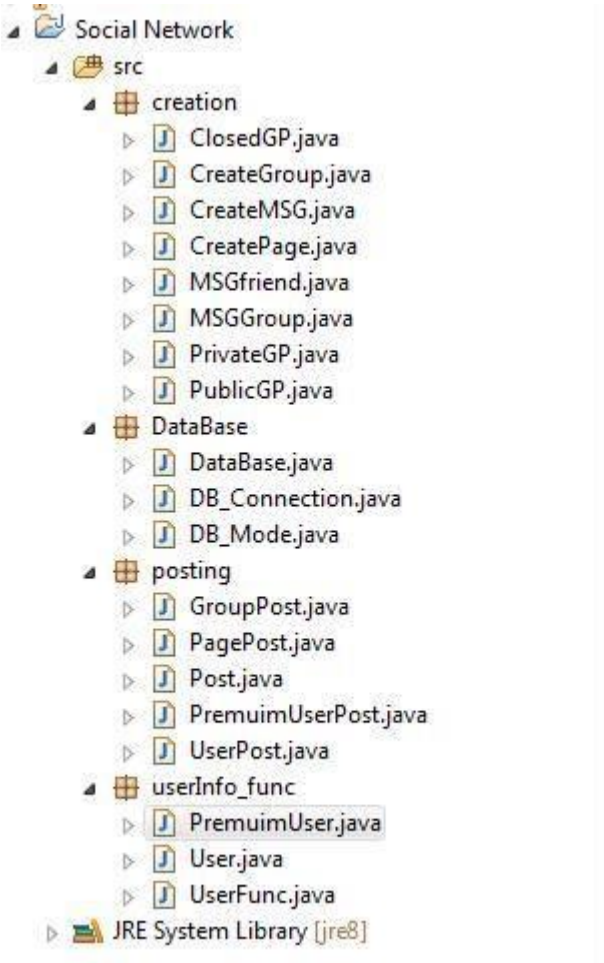

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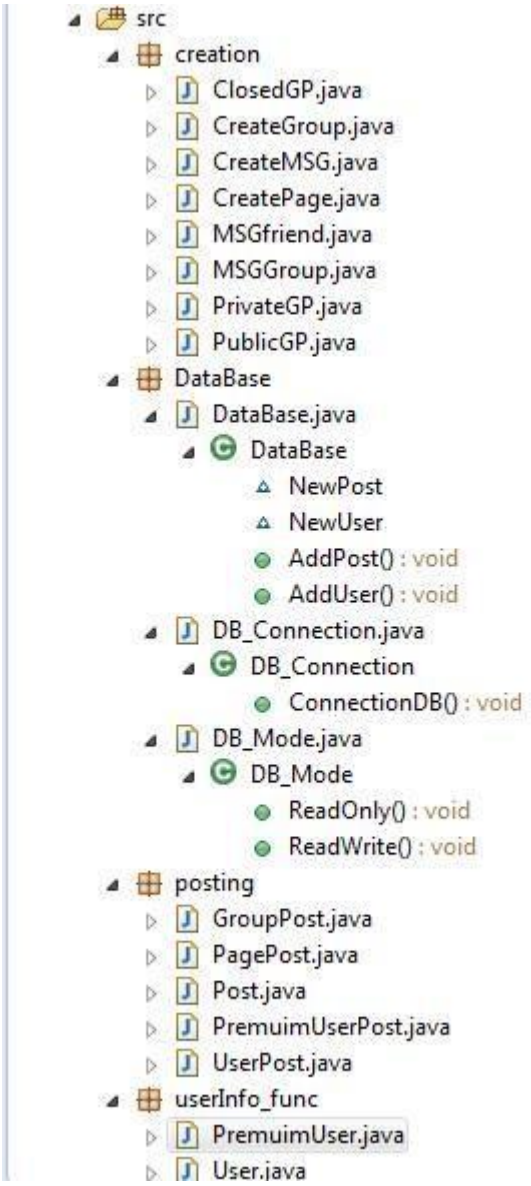

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Ownership Report

Item	Owners
System Decomposition User Interface Design	*Suhila Ahmed Salah*
Purpose and audience Class Diagrams	*Sara Mokhtar Abdo*
Algorithms Physical Entity-Relationship Diagram	*Shaimaa Farouk*
Sequence Diagrams Class-Sequence Usage	*Heba Moustafa Tawfeek*

References

http://stackoverflow.com/questions/3085285/cohesion-coupling

https://www.gliffy.com/

https://www.youtube.com/watch?v=kApq-E2mtn0