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.

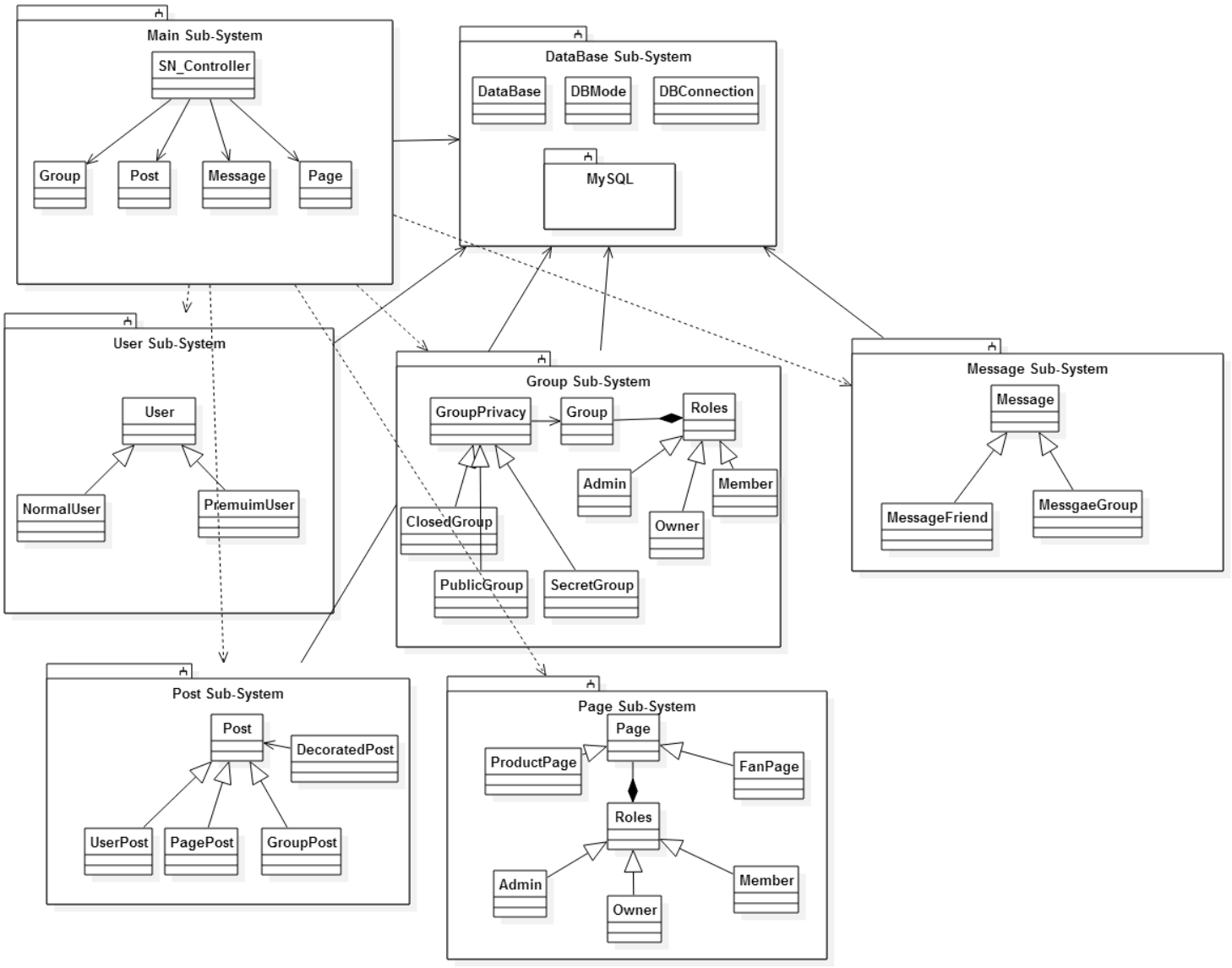
Audience:

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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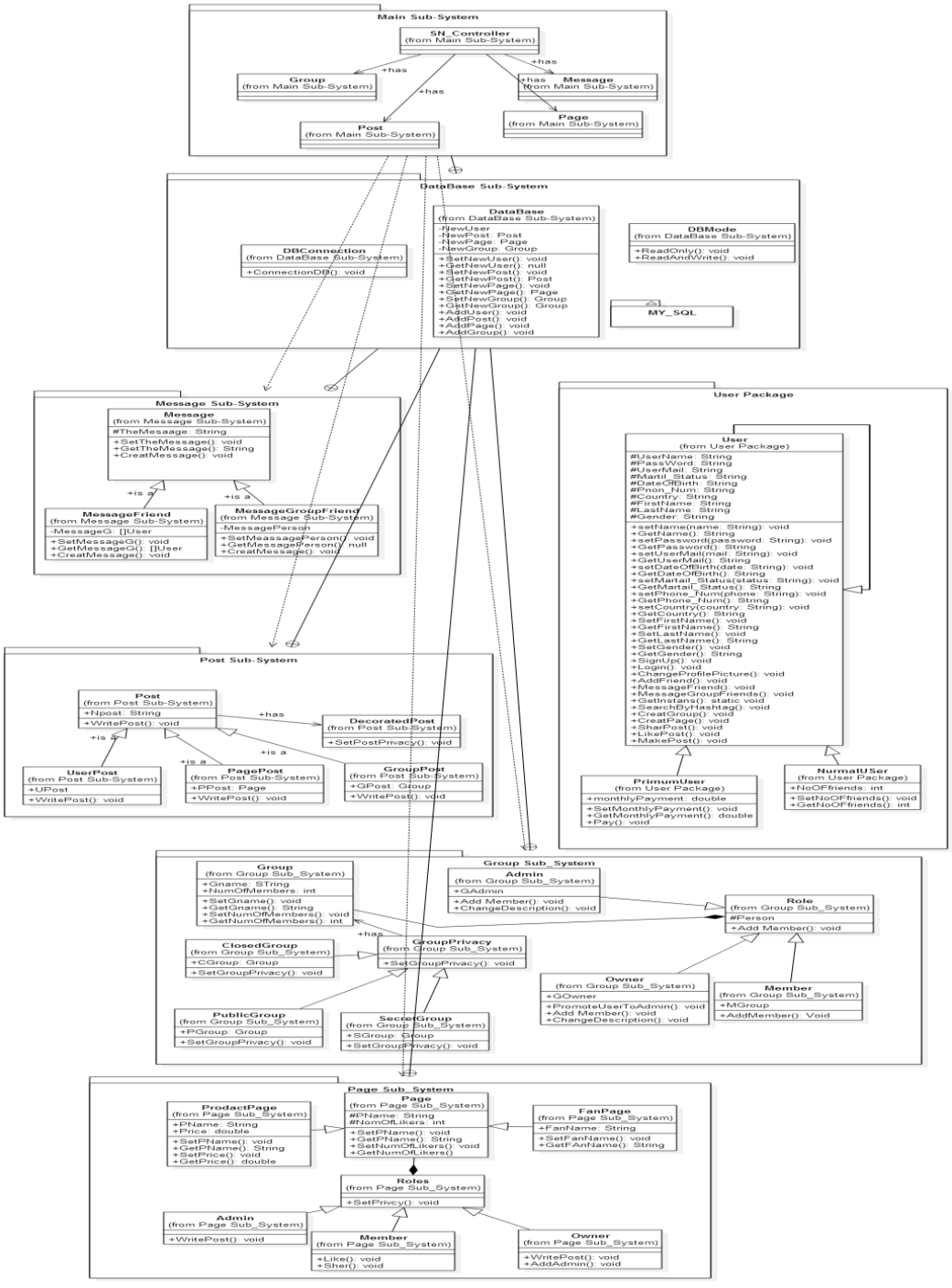
Class diagram:



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Class ID	Class Name	Subsystem ID	Description
1	DB_Connection	P2	Connect between database and user.
2	DB_Mode	P2	Determine if read and write or read only from database .
3	DataBase	P2	Contain information about user and posts that make ability to search about friend or hashtag.
4	MY_SQL	P2	
5	Page	P7	Contain page name and number of likers.
6	ProdactPage	P7	Contain product name and price.
7	FanPage	P7	Contain Fan name.
8	Roles	P7	Contain Privacy of page.
9	Admin	P7	Contain Admin page.
10	Member	P7	Contain Member of page.
11	Owner	P7	Contain Owner of page.
12	Message	P3	Contain the Message.
13	MessageFrined	P3	Contain operation to message friend.
14	MessageGroup	P3	Contain operation to message group of friends.
15	User	P4	Contain all information about user.
16	Permium User	P4	Contain all information about premium user and what fees user must pay to get more features of the system .
17	Normal User	P4	Contain all information about Normal user and what number of friends user has because normal user has limited number of friends
18	SN_Controller	P1	Call the classes that contains action performed by the user.
19	Group	P5	Determine the group name and No, of its members
20	Role	P5	Determine if the user is owner, Admin or Member.
21	GroupPrivacy	P5	Determine the group privacy if its closed, secret or public
22	ClosedGroup	P5	Set the group privacy to be closed group.

23	SecretGroup	P5	Set the group privacy to be secret group
24	PublicGroup	P5	Set the group privacy to be public.
25	Admin	P5	Determine the group admin, adding members to group and changing the description of the group.
26	Owner	P5	Determine the owner of the group, adding members and change the group description
27 Member		P5	The group members and can add members to group

Software Design Specification

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..

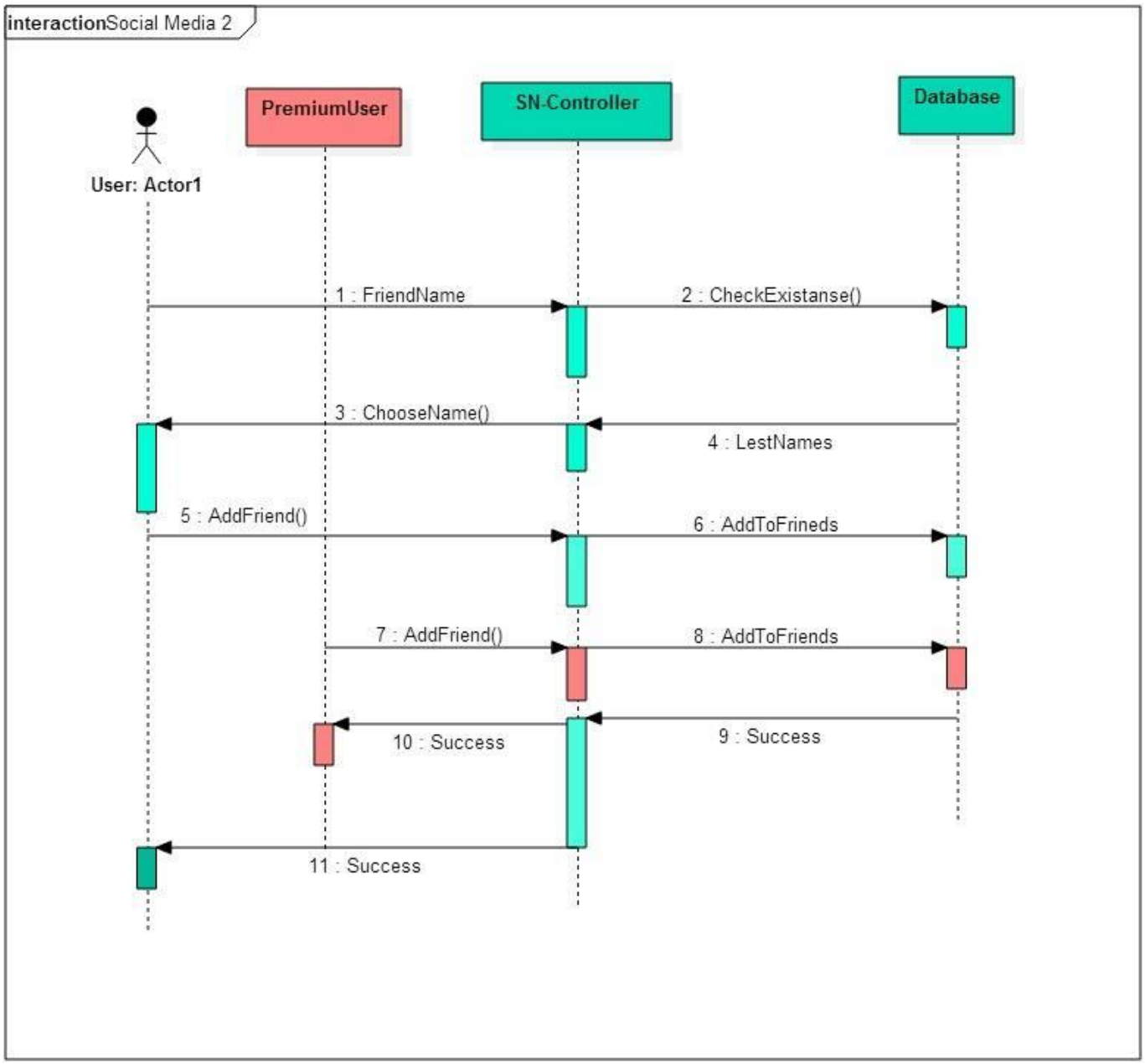
-Else

-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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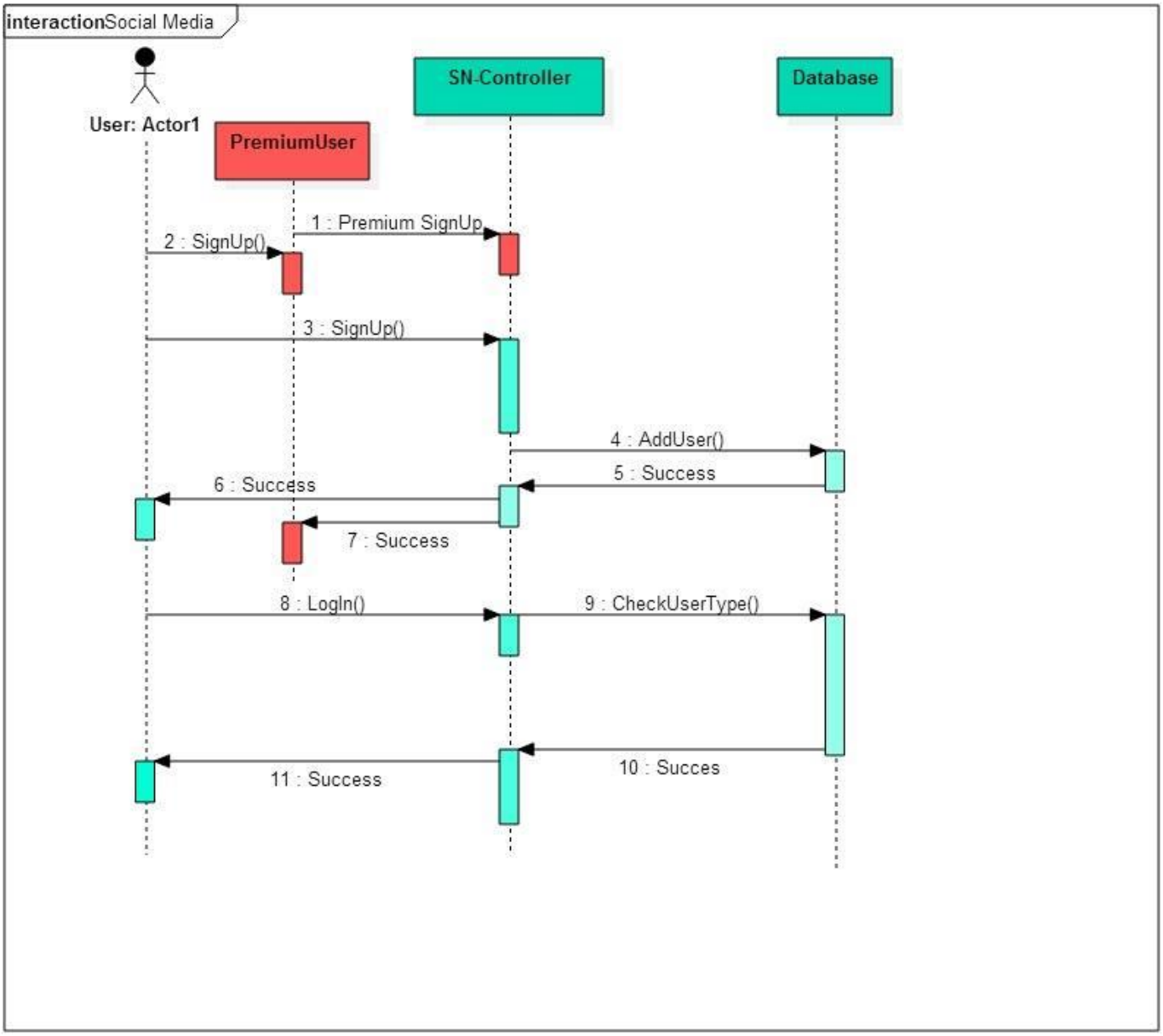
Class - Sequence Usage

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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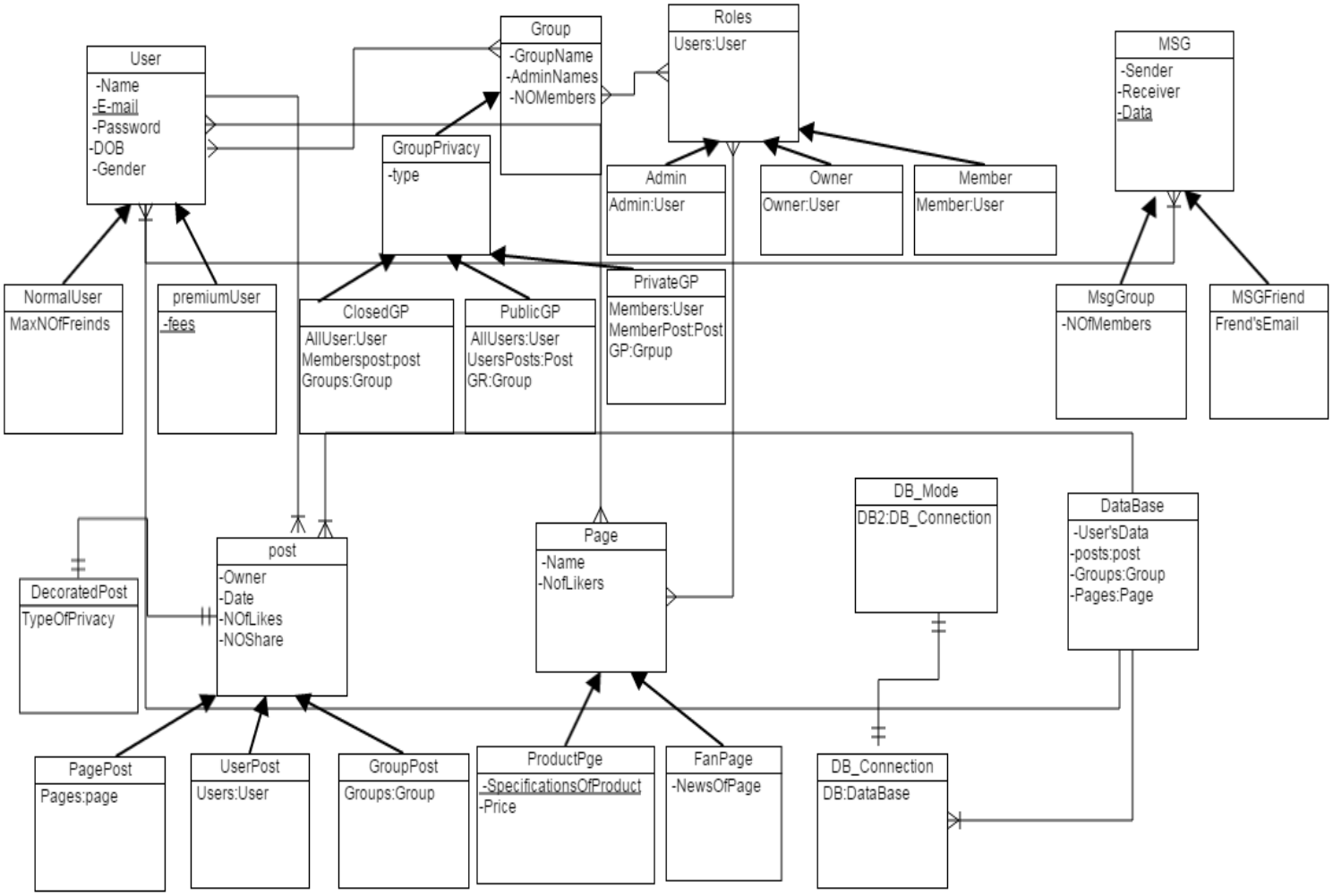
Physical Entity-Relationship Diagram



User Interface Design

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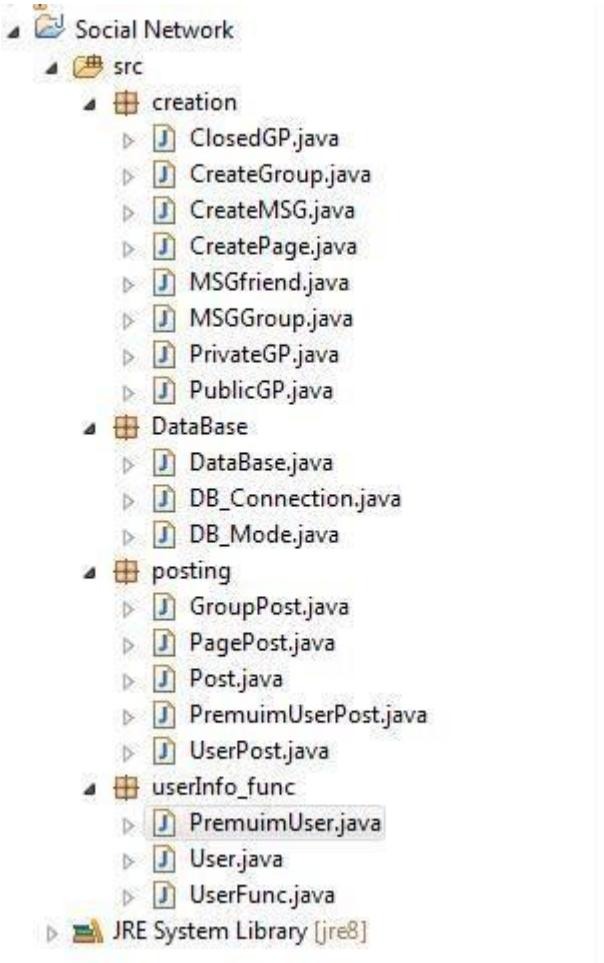

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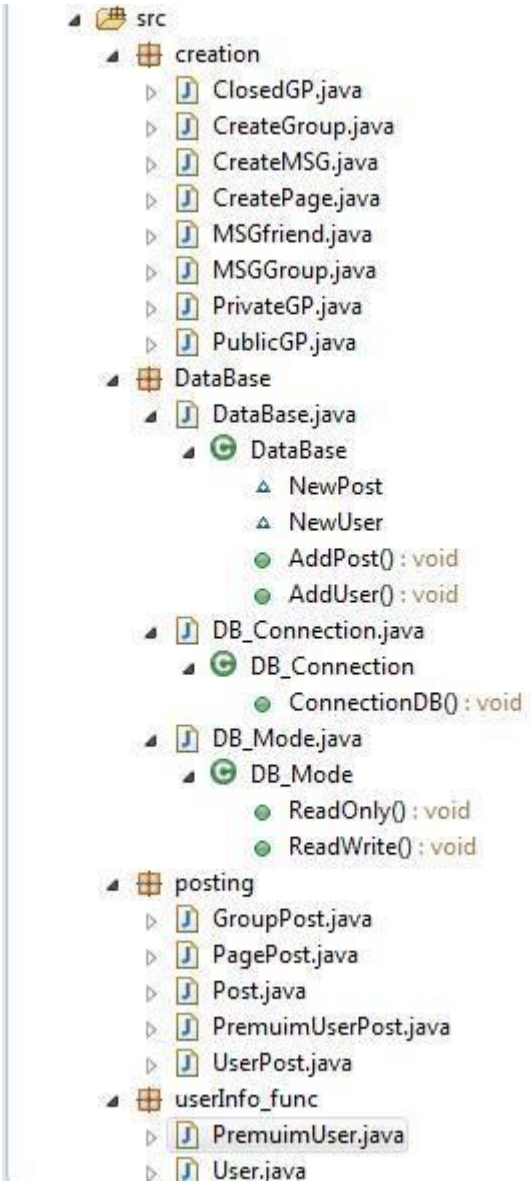

Software Design Specification

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