



# Software Requirements Specifications

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# CS251: Phase 1 – Mohamed samir ,social network

## Software Requirements Specifications

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### Document Purpose and Audience

- The purpose of this document is to explain a detailed description of the Social Network System. It will show the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external society.
- This document is intended for both the users and the developers of the system.

### Introduction

#### Software Purpose

- The purpose of this project is to develop back-end API for social network that is able to manage interactions between users, create and manage groups and pages, manage different type of posts and retrieve current posts in specific hashtag and sort these posts according to the most important post.



## Software Requirements Specifications

### Software Scope

#### Definitions, acronyms, and abbreviations

Term	Definition
Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
API	An abbreviation of <i>application program interface</i> , is a set of routines, protocols, and tools for building software applications
Hashtag	A word or phrase preceded by a hash sign (#), used on social media sites such as Twitter to identify messages on a specific topic.

### Requirements

#### Functional Requirements

ID	Description
1	User can <b>sign up</b> to create an account. Sign up interface may have: <ul style="list-style-type: none"><li>- name</li><li>- password</li><li>- birth date</li><li>- email: must not exist in the social network before</li><li>-gender</li></ul>
2	User can <b>login</b> to his account. Login interface may have: <ul style="list-style-type: none"><li>-email</li><li>-password</li></ul>
3	User can <b>update</b> information only of his account, pages or groups he created. User can choose either these information to be public, private, or custom to specific people.
4	User can <b>create</b> a group, controls everything inside it, posts, pictures or files shared by the members. Or <b>join</b> a group where he can post, upload data to the group but the creator must confirm his joining to the group. Knowing that every user has maximum number of groups to create or join that he cannot exceed.



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5	User can <b>create</b> a page, he controls posts, pictures, any attached files and messages coming to the page. Or <b>like</b> a page that already exist. He can comment, like or post on the page.
6	User can <b>write a hashtag</b> on his post on a specific issue to be able to get all info about this issue even written by other users by typing the hashtag.
7	User can <b>write a post</b> on his accounts, his friends' accounts, his pages or his groups. This post has privacy settings; it can be public, private or custom to specific people. This post also can contain pictures or videos.
8	User can <b>send a message</b> to one or more user of his friends. Messages to people who are not in his friends will be sent as others.
9	User can <b>logout</b> from his account.
10	Developer can <b>add</b> functions to the code to meet the desire of his website. Functions to put a specific theme to the website, specific name, specific interface, etc.
11	Developer can <b>post</b> on users' accounts through applications used by the user after taking permission from the user.
12	If any user reports an account or page, developer can handle this and <b>stop</b> this page or account from any activities.
13	Developer can <b>send</b> awareness, error messages to pages or accounts.

### Non Functional Requirements

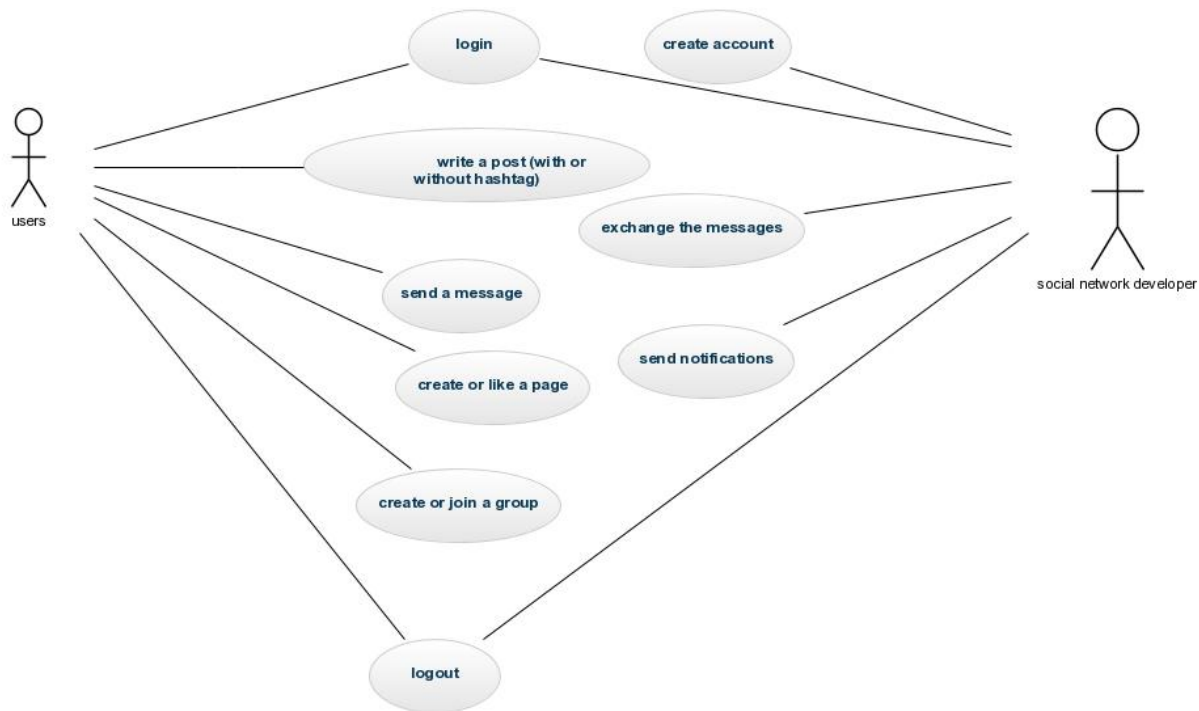
Performance	<ul style="list-style-type: none"> <li>All operations will be done in maximum 20 seconds</li> <li>User will go directly to the required page (no advertisements)</li> </ul>
Operating constraint	<ul style="list-style-type: none"> <li>No specific software or operating system needed</li> </ul>
Usability	<ul style="list-style-type: none"> <li>40%, measured in terms of lines of code, must be designed generically so that it can be reused.</li> </ul>
legal	<ul style="list-style-type: none"> <li>There are terms of use which the user must agree on to access the social network</li> </ul>
Security	<ul style="list-style-type: none"> <li>Passwords are required to be in a special format to be highly secured</li> <li>Messages and personal information are private and totally secured from the public</li> </ul>
Scalability	<ul style="list-style-type: none"> <li>System is Horizontal (scaling out), is the ability to connect multiple hardware or software entities so that they work as a single logical unit.</li> </ul>
Modifiability	<ul style="list-style-type: none"> <li>Only the software owner can easily modify the software</li> </ul>

## System Models

### Use Case Model



## Software Requirements Specifications



### Use Case Tables

Use Case ID:	1	
Use Case Name:	Sign up	
Actors:	-user -social network site	
Pre-conditions:	none	
Post-conditions:	Create and save the account	
Flow of events:	User Action	System Action
	1- User enters name, password, birth date, email and gender.	



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		2- System Verify user data
		3- System creates the account and save all the information of the user.
Exceptions:	If the user enter a used username.	
Includes:	Must connect to the internet.	

Use Case ID:	4	
Use Case Name:	Create a group	
Actors:	-user -social network site	
Pre-conditions:	none	
Post-conditions:	Create the group	
Flow of events:	<b>User Action</b>	<b>System Action</b>
	1- User opens his account and creates a group on site.	
		2-System asks about some information such as (name of page, name of topic...)
	3-User fills the requested information.	
		3- System creates the group and the user will be the admin.
Exceptions:	The user create group or page have been created before.	
Includes:	The user must login to create group or page.	



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Use Case ID:	4	
Use Case Name:	Join a group	
Actors:	-user -social network site -admin	
Pre-conditions:	none	
Post-conditions:	Confirm the response of the request.	
Flow of events:	<b>User Action</b>	<b>System Action</b>
	1- User searches about the name of the group he wants.	
		2- System Verify this search and finds the group if it is already exists.
	3-open the desired group and join it.	
		4-System sends request to the admin of the group to allow the user to join this group.
		5-System takes the response of the request from the admin and sends it to the user as a notification.
Exceptions:	If the user already join the group.	
Includes:	The user must have an account and login to join group.	



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Use Case ID:	5	
Use Case Name:	Like a page	
Actors:	-user -social network site	
Pre-conditions:	none	
Post-conditions:	Confirm the like	
Flow of events:	<b>User Action</b>	<b>System Action</b>
	1- User searches about the name of the page he wants.	
		2- System Verify this search and finds the page if it is already exists.
	3-open the desired page and like it.	
		4-System confirms the like and allows the user to participate in all page's activity.
Exceptions:	If the user already like page.	
Includes:	The user must have an account and login to like pages.	

Use Case ID:	7	
Use Case Name:	Write a post with hash tag	
Actors:	-user -social network site	
Pre-conditions:	none	





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Post-conditions:	Upload the post	
Flow of events:	<b>User Action</b>	<b>System Action</b>
	1- User writes the post with the hash tag (# hash tag sign).	
		2- System sends this post to the site to allow other users to see it and like it or share it.
		3- System gets all posts contains specific hash tag and sort these posts according to post importance.
Exceptions:	The hashtag already have been created before.	
Includes:	The user must have an account and login to write post with hashtag.	

Use Case ID:	8	
Use Case Name:	Send a message	
Actors:	-user -social network site	
Pre-conditions:	none	
Post-conditions:	Confirm the sending message	
Flow of events:	<b>User Action</b>	<b>System Action</b>
	1- User writes the message in the message box and sends it.	



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		2- System takes this message and sends it to the desired user.
		3- System allows the exchange of messages between these two users or group of users.
Exceptions:	If the user send to an offline user or the user deactivated his/her account.	
Includes:	The user must have an account and login to send messages.	

Use Case ID:	10	
Use Case Name:	Add functions.	
Actors:	-Developer -social network site	
Pre-conditions:	none	
Post-conditions:	Add theme, name, and interface.	
Flow of events:	<b>Developer Action</b>	<b>System Action</b>
	1- Developer can add functions to the website	
		2-System asks about some information such as (name of page, name of topic...)
	3-User fills the requested information.	
		3- System add feature to change website themes.



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Use Case ID:	11	
Use Case Name:	Auto posts.	
Actors:	-Developer -social network site	
Pre-conditions:	none	
Post-conditions:	Developer can <b>post</b> on users' accounts through applications.	
Flow of events:	Developer Action	System Action
	1- Developer takes permission from user to post.	
		2-System asks about permission.
	3- Developer post on users' accounts.	
		3- System auto post.

Use Case ID:	12	
Use Case Name:	Stop.	
Actors:	-Developer -social network site	
Pre-conditions:	none	
Post-conditions:	If any user reports an account or page, developer can handle this and stop them.	
Flow of events:	Developer Action	System Action
	1- Developer takes report from user	



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		2-System prevent user from doing anything.
	3- Developer stop pages or groups from any activities	

Use Case ID:	13	
Use Case Name:	Send error messages.	
Actors:	-Developer -social network site	
Pre-conditions:	none	
Post-conditions:	Send awareness, error messages to pages or accounts	
Flow of events:	<b>Developer Action</b>	<b>System Action</b>
	1- Developer sends awareness and error messages.	
		2-System prints a messages to user.

### Ownership Report

Item	Owners
All parts	All team members

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