Software Requirements Specifications

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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.

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Software Scope

Users

- With this component you should be able to create and manage different type of users

Groups

- With this component you should be able to create and manage different types of groups and each group is managed by set of users (including user creates the group).

Pages

- With this component you should be able to create and manage user pages and maintain some important attributes.

Posts

- With this component you should be able to create and manage different types of posts. Maintain some important attributes for post (number of likes, number of shares).

Hash tag

- With this component you should be able to manage all hash tags, get all posts contains specific hash tag and sort these posts according to post importance.

Messages

- With this component you should be able to create message from user to any other user(s), or get messages between 2 users, or get messages in specific message group (which contains more than 2 users).

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 *application program interface*, 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.

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Requirements

Functional Requirements

ID	Description
1	Social network site could ask the user to **sign up** to create an account**.** Sign up interface may have: - name - password - birth date - email -gender
2	Social network site could ask the user to **login** to his account. Login interface may have: -email -password
3	User can **update** his information on his account.
4	User can **create or join** a group on the site.
5	User can **create or like** a page on the site.
6	User can **write a post**.
7	User can **write a hash tag** with his post.
8	User can **send a message** to one or more user from his account.
9	User can **logout** from his account.

Non Functional Requirements

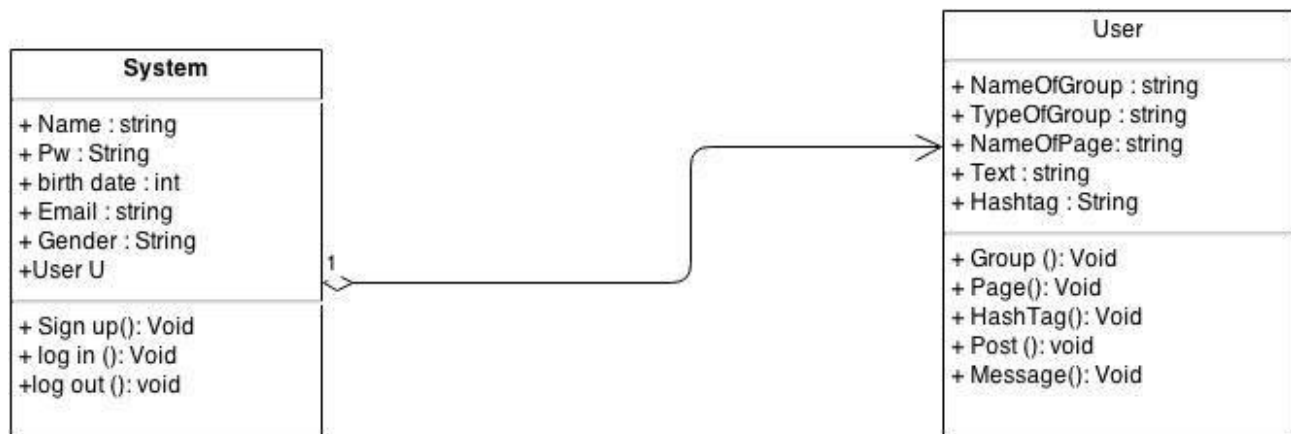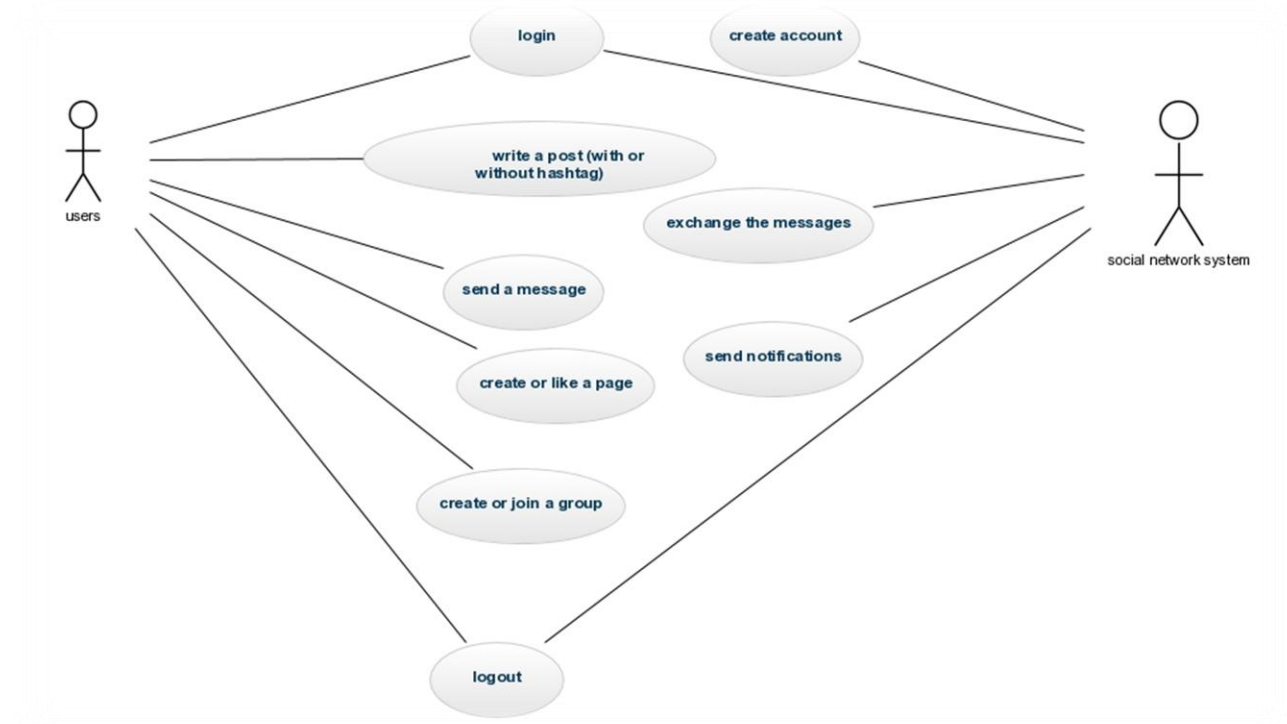| Performance	• All operations will be done in maximum 20 seconds • User will go directly to the required page (no advertisements)
Operating constraint	• No specific software or operating system needed
Usability	• It would take maximum 1 day as a learning time of the social network
legal	• There are terms of use which the user must agree on to access the social network
Security	• Passwords are required to be in a special format to be highly secured • Messages and personal information are private and totally secured from the public
Scalability	• System is Horizontal (scaling out)
Modifiability	• Only the software owner can easily modify the software

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System Models

Use Case Model

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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.	
		2- System Verify user data
		3- System create the account and save all the informations of the user.

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:	**User Action**	**System Action**

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	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.

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:	**User Action**	**System Action**
	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. |

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:	**User Action**	**System Action**
	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.

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

Flow of events:	User Action	System Action
	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.

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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:	**User Action**	**System Action**
	1- User writes the message in the message box and sends it.	
		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.