Srs facebook Autosaved

Software Engineering (Lovely Professional University)

Software Requirements Specification

For

FACEBOOK

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Table of Contents

1. Introduction.

1.1 Purpose

This document describes a software requirement for Facebook .Facebook is a social network in which people can add friends, share videos and share photos, send and receive messages and keep in touch with friends, family and colleagues.. The purpose of this document is to give complete reference about how Facebook is developed. In this document user profiles often have a section dedicated to comments from friends and other users. To protect user privacy, social networks usually have controls that allow users to choose who can view their profile, contact them, add them to their list of contacts, and so on.

1.2 Document Conventions: font:

Main Section Titles

- Font: Times New Roman
- Face: Bold
- Size: 14

Sub Section Titles

- Font: Times New Roman
- Face: Bold
- Size: 12

Other Text Explanations

- Font: Times New Roman
- Face: Normal
- Size: 12

1.3 Intended Audience and Reading Suggestions

This document is intended for a varied set of audiences. This document serves as a contract agreement with software developer. This document is intended

for the software developer authorities, the design team, developers, project manager, team leads, supervisors, security analysts, testing team and the QA team to better understand the system requirements. Knowledge and understanding of UML diagrams is also required.

1.4 Definitions, abbreviations

1.4.1 Definitions

- **Sign Up Page**

This page enables the non-registered users to sign up as a new user and create his/her own account. Once a new user has registered, he/she can sign into his account by giving his/her username & password in the SIGN IN page.

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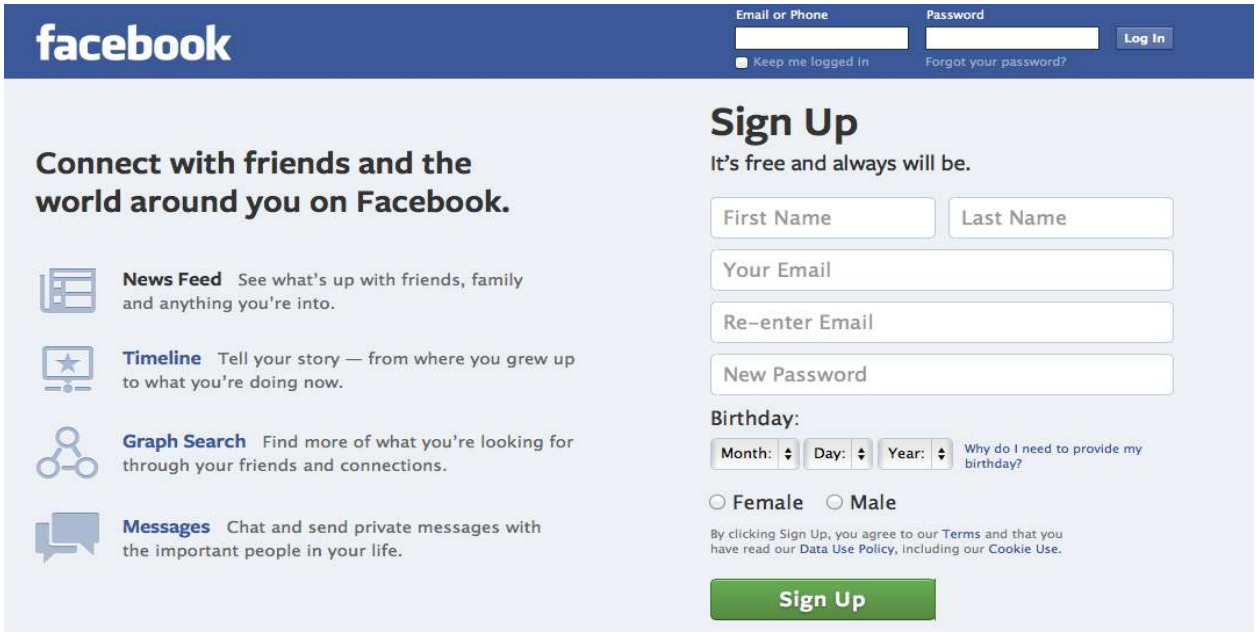
registered, he/she can sign into his account by giving his/her username & password in the SIGN IN page

- **Sign In**

This page provides the facility for the registered user to login to the next page to view the availability of the items. Once an user has signed into his/her account he/she can send scrap to any one in his friend list and can join any community or group present within the database. If the user is new he/she will be redirected to the SIGN UP page..



- **Home**

This page provides user the facility to view scrap book and add as a friend to his/her friend list. The user can also access and change his/her profile as and when required. User has an option to view messages, photos and friends' profiles

- **Profile**

In this page all the updates given by the users would appear. Other users can view the scrap book and pictures posted by the former.

- **Message**

In this page the users can send messages to whomever they wish in their friend list. The recipient can send back another message as a reply

- **Chat**

In this page several users can chat among themselves. For this the users would have to join the chat room.

- **Photos**

In this page users can see their photos and posts.

- **Sign Out**

Once the user is done with, he/she can logout of the portal by clicking on the Sign Out button.

- **Add / Edit Education**

A part of building user profile. User should be able to add the educational details. These fields can remain empty. User must be logged in and his account should be marked as verified to be able to add education. Input to each field must be validated.

- **Add/Edit personal information**

A part of building user profile. User should be able to add the personal details like language, gender, about user and his interests. These fields can remain empty. User must be logged in and his account should be marked as verified to be able to add personal information. Input to each field must be validated.

- **Add account information**

A part of building user profile. User should be able to add the account details like name, birth date, email-id, phone number and address. Name, birth date and email-id cannot be empty while the other two can remain empty. User must be logged in. Input to each field must be validated.

- **Set account visibility settings**

User should be able to make account details private or public according to his wish. By default the account details will be visible to public

- **Set personal information visibility**

User should be able to make personal information private or public according to his wish. By default the personal information will be visible to public**.**

- **Delete Account**

User may delete his account permanently from Facebook depending on his wish. User will be removed from his friends list once deleted. User information will be cleared.

- **Add Friend**

A registered user of Facebook should be able to send add friend requests to other users of Facebook. User can send friend request to already registered users of Facebook. User can search his friend on Facebook among the registered users and then send a friend request to him/her.

- **Accept/Ignore Friend Request**

If a user gets a friend request from another user, then the user receiving the request should have an option to accept or ignore the friend request. If the user selects to accept the friend request, the requestor is added to the friend list of the acceptor. If the user selected to ignore the request, the sender continues to see the status of the request as "Request Sent" and the request is removed from the queue of the request receive.

- **List Friends**

Whenever the user is on any person's profile page, he should have an option to view currently open user profile's friends on a page. User can have many friends and the maximum number of friends shown at a time will be 20, and paging will be implemented to show more friends if the user has more than 20 friends

- **Search User**

User should be able to search for his/her friends who may be registered on Facebook. User will put the name of the friend and click search after which the search results will display all the people registered on Facebook by the searched name. When the search results are displayed the maximum number of results shown at a time will be 20, and paging will be implemented to show more results.

1.5 Project Scope

The name of the software product is Facebook. Facebook is a social network that connects people. The aim of Facebook is to provide information to the users about the events and the people whom they know. The users of Facebook can add friends, share videos which they want their friends watch; upload photos, comment on their friends' sharing's, chatting with their friends and become informed about their friends.

2. Overall Description

2.1 Product Perspective

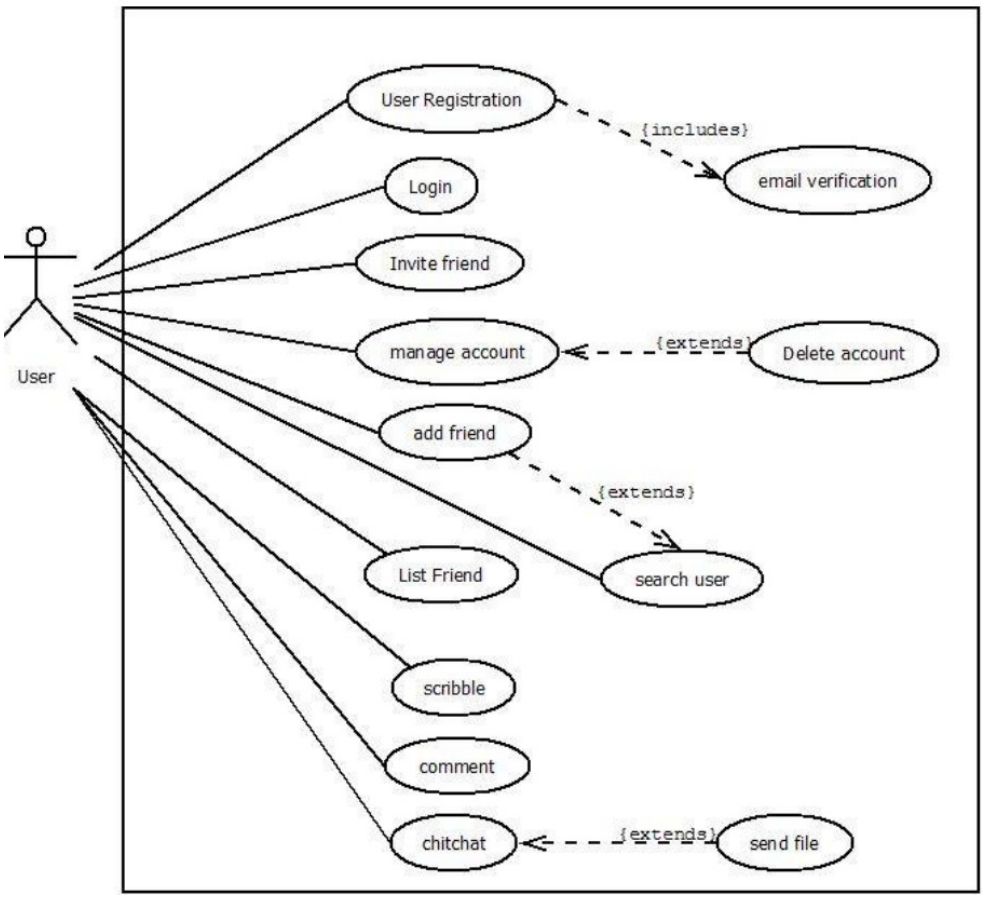
Facebook is an independent and world-wide social network website. Every person can use it online without a fee. The Facebook is not a part of a larger system, it is an independent system. People from different regions of the world can connect to it and exchange information with other people. In order to control the contents of the sharings and comments done by the other people, Facebook has also a control mechanism. People can deliver their complaints about any part of the Facebook to the "Facebook Administrators". Then, "Facebook Administrators" might take appropriate actions according to the complained situation which is against the rules.

2.2 Product Features

After creating an account and starting to use the Facebook, first thing he or she will make is searching for friends. The user will search people by their names and can send an invitation to them to add as a friend and to be able to see their shared items on Facebook. If the person accepts the invitation, these two persons become friends on Facebook and can interact more closely such as sending messages to each other.

Any user can share his/her status like whatever he is thinking, wherever he is or his current mode. Friends of this person can make a comment on that. Furthermore, if a user shared a photo, video, link or anything, any friend of that user can share that shared item also.

Users can upload photo and video to their profiles and create an album. Anyone can create a group and invite people to join in the group. Similarly, people can attend the activities where they are invited.



2.3 User Characteristics

Facebook does not require any specific computer knowledge to use it except the developers and administrators of it. Standard users are thought to be from any age, any gender and from any nationality who can use just computer's browser. On the other hand, administrators and potential developers need a high level of expertise to understand web technologies.

2.4 Constraints

Being a social network website, the software should ensure the safety of information given by the user and provide some privacy settings options to the user.

Firstly, Facebook provides people the right to choose the category of people who will be able to view their shared items. Some users may not desire the access of some people to their shared items and information. If this is the case, users can set their privacy settings to prevent some people's access to their information.

Secondly, Facebook cannot sell the private information of users to someone else. However, if the user permits, an application can access to some information of the user.

3. USER'S INTERFACES

3.1 STANDARD USER INTERFACE

Standard users shall be using the web browser to use the product. Thus, it shall have a login page and users must login with their e-mail addresses and passwords. After a successful login, they shall be taken to their "News Feed" which is their homepage thereafter. Since they are logged into the system, there must be logout button and their Facebook profile names at the top of the page until they logged out of the system. In addition, there shall be Help menu in order to explain the processes of Facebook to the users.

Being a social network, a direct link to the list of "Friends" shall be listed in the "Account" menu, located at the right top, which shall also include "Logout" and "Account and Privacy Settings". At the top, there shall be "Home" and "Profile" buttons which are used for linking News Feed and users' own profile respectively. "Search" field which lets users search for their friends, events, etc. shall be located at the center of the top in the whole processes. All other features of the system shall be reachable by menu as a left sidebar such as Events, Photos, Videos, Groups etc. In the menu, order of these features shall be updated according to their usage levels for the users Finally, sub-functions, such as "Creating Event" which is related to "Events" feature, shall be reachable from the related features menu.

3.2 SYSTEM FEATURES

In this section, all normal and alternative flow of events are organized with the assumption that users or administrators are successfully reached their homepage by loginning to the system. This assumption is made in order to describe specifications of the sub-features with better focusing.

3.3 Background Information

Since Facebook is introduced to people as a social network, searching friends is one of the main features of Facebook. This function of the system enable the users find their friends by searching with their friends' name. If the searched friend is Facebook user and s/he do not close their profile to searches from privacy settings, the search engine of Facebook will come out the people who has the searched name.

4.External Interface Requirements

4.1 Hardware Interface

6-pack the first open hardware modular switch is used by facebook. The "6-pack" platform is the core of our new fabric, and it uses "Wedge" as its basic building block. It is a full mesh non-blocking two-stage switch that includes 12 independent switching elements. Each independent element can switch 1.28Tbps. We have two configurations: One configuration exposes 16x40GE ports to the front and 640G (16x40GE) to the back, and the other is used for aggregation and exposes all 1.28T to the back. Each element runs its own operating system on the local server and is completely independent, from the switching aspects to the low-level board control and cooling system. This means we can modify any part of the system with no system-level impact, software or

hardware. We created a unique dual backplane solution that enabled us to create a non-blocking topology.

4.2 Software interface

Facebook uses PHP, but it has built a compiler for it so it can be turned into native code on its web servers, thus boosting performance.

Facebook uses Linux, but has optimized it for its own purposes (especially in terms of network throughput).

Facebook uses MySQL, but primarily as a key-value persistent storage, moving joins and logic onto the web servers since optimizations are easier to perform there (on the "other side" of the Memcached layer).

Then there are the custom-written systems, like Haystack, a highly scalable object store used to serve Facebook's immense amount of photos, or Scribe, a logging system that can operate at the scale of Facebook (which is far from trivial).

But enough of that. Let's present (some of) the software that Facebook uses to provide us all with the world's largest social network site

5. NON-FUNCTIONAL REQUIREMENTS

5.1 PERFORMANCE REQUIREMENTS

System shall be available from all over the world at all times. Being a social network, any interruption in the sharing chain will cause people to give up on Facebook, therefore it is essential that the system shall be available at all times.

System shall not be affected from the number of active users in the system until half of the registered users become active. Being a worldwide network, assuming that half of the registered users are reaching to the website is a legitimate and necessary requirement.

5.2 DESIGN REQUIREMENTS

Design of the system shall arrange the content size as compatible for different platforms, such as mobile phones, tablets and desktop computers. Since Facebook is based on sharing with friends, design of the system shall let high level of mobile access.

Design of the system shall let different languages to be shown without affecting the general layout and operations. Being a worldwide network, different language sets shall be able to shown as the main language of the website without creating any obstacles on the operations.

5.3 Security Requirements

Facebook has the extraordinary security infrastructure it uses to fight off spam and other cyber-scams Known as the Facebook Immune System (FIS), the massive defense network appears to be successful .numbers released by the company show that less than 1 per cent of users experience spam. Yet it's not perfect. Researchers have built a novel attack that evaded the cyber-defences and extracted private material from real users' Facebook accounts

To tackle the attack, FIS generated a signature that it used to differentiate between spam and legitimate messages. This was based on the links in the spam messages, keywords like "free" and "iPad", and the IP addresses of the computers sending the messages. But spammers can use multiple machines to switch IP addresses, and link redirection services like bitly can change links on the fly. So FIS checked to see which messages were being flagged as spam by users and blocked messages with similar keywords in the text. Together with other features of the message, which Facebook declined to discuss for fear of aiding spammers, the system was able to begin developing a signature to identify the spam within seconds of the attack emerging.

Facebook's privacy settings allow users to shield personal information from public view