

King Saud University

College of Computer and Information Sciences

Department of Software Engineering

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SWE 211 PROJECT

Requirement and design document

Section: 44168

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Project description

One of the world's most popular social networking application/website is Facebook. It allows users to communicate with their friends and family by sharing status updates, personal photos and other items of interest.

Assume that your group was working with the development team who build this application/website and the group tasks are based on the early stages of developing the software (requirement definition and design phases). Therefore, your responsibility, as a team, is to analyze and design this application/website. The project manager has requested from your group to submit the document using the specified template by 14th April 2016 which should contain the following:

Requirement specification phase which contains the following:

- Functional user requirement (minimum 12 requirements)
- Functional system requirement (minimum 6 requirements)
- Non-functional external requirement (minimum 3 requirements)
- Non-functional product requirement (minimum 3 requirements)

System modeling section contains the following:

- Use-case
 - Use-case diagram (minimum 12 use-cases)
 - Use-case description (from the 12 use-cases choose minimum 6 Use-case description)
- Class diagram (including all the elements, e.g. methods and attributes)
- Sequence diagram (from the 12 use-cases choose minimum 6 sequence diagrams)

1. Requirement specification

1.1. Functional user requirement:

- 1.1.1. Users could register using their Email ,password and personal information.
- 1.1.2. Users shall login using Email or phone number and Password .
- 1.1.3. Users shall be able to publish on wall; with features like upload picture , share location , tag people .
- 1.1.4. Users shall be able to edit their profile.
- 1.1.5. Users shall be able to add friends.
- 1.1.6. Users shall be able to create groups of friends.
- 1.1.7. Users shall be able to create an event.
- 1.1.8. Users shall be able to get notifications based on their choice .
- 1.1.9. The system provide different games to the users .
- 1.1.10. User shall be able to search for a friend.
- 1.1.11. the system shall provide different languages , users shall be able to choose their suitable language.
- 1.1.12. User shall be able to chat with other users.
- 1.1.13. Users shall have the ability to accept or refuse friend requests .

1.2. Functional system requirement:

- 1.2.1. The system should suggest to the user friends to add them based on the the number of mutual friends from the most to least.
- 1.2.2. The ads will pop up to users screen based in their favorite pages.
- 1.2.3. When friend add you the system should give you navigation to accepts.
- 1.2.4. The system should check the email and phone number every 6 month for example.
- 1.2.5. The system refreshing the page evry 15 secondes.
- 1.2.6. The system show availbilty of chating with frinds by colors red and green.

1.3. Non-functional external requirement:

- 1.3.1. The country has the ability to access user's personal information .
- 1.3.2. The government control all the political events.
- 1.3.3. The government official can freeze any illegal accounts.
- 1.3.4. Users shall not be able to use Facebook if they are under 13.

1.4. Non-functional product requirement:

1.4.1. Users shall not be able to solicit login information or access an account belonging to someone else.

1.4.2. Users cannot collect other users' content or information, or otherwise access Facebook, using automated means (such as harvesting bots, robots, spiders, or scrapers) without prior permission.

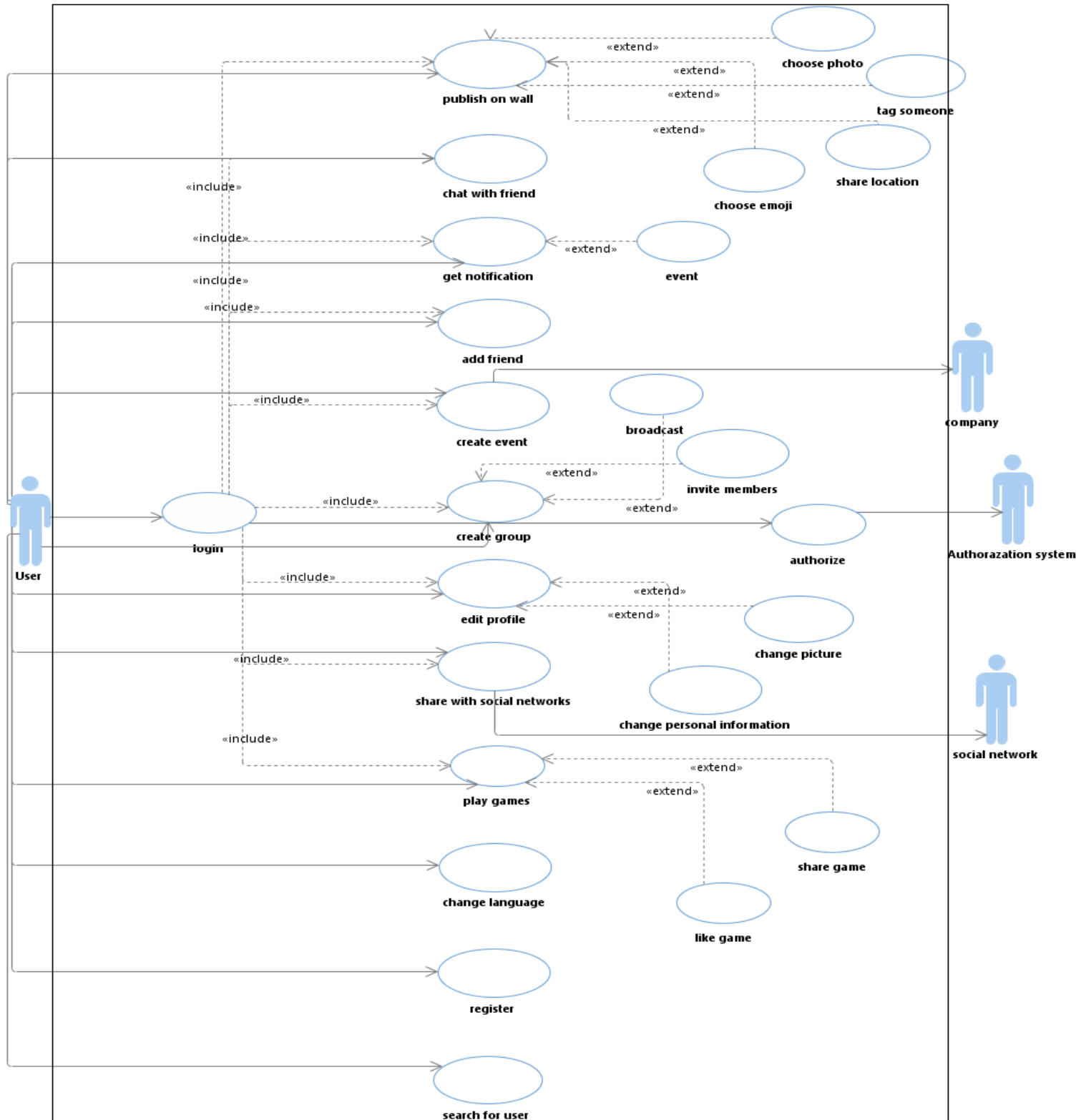
1.4.3. The application asks for users permission to access the content and information as well as content and information that others have shared with them.

1.4.4. If the user change or deactivate his/her mobile telephone number, he/she have to update the account information on Facebook within 48 hours to ensure that the messages are not sent to the person who acquires the old number.

2. System Modeling

2.1. Use-case

2.1.1. Use-case diagram



2.1.2. Use-case description

Facebook: Add friend	
Actors	User
Description	The function will be reachable from every profile page which is not already added as a friend. Clicking the “add as a friend” button from the top of the profile page, there will be two buttons for cancelling the request and sending the request. Sending request successfully, the text on the button will be “a friendship request sent” instead of “Add as a friend”.
Precondition	<ol style="list-style-type: none"> 1. User login to his account 2. The friend must allow other people to add herself/himself as a friend.
Stimulus	Clicking “add as a friend” button.
Response	Add friend.
Flow of events	<ol style="list-style-type: none"> 1. User reaches the profile page of his friend whom s/he want to add. 2. User presses add as friend button 3. User is notified if the friend request is sent.
Post condition	If the friend accepts the friend request, the friend is added to friend list.
Comments/assumptions	If the other user has set privacy level to prevent others adding as a friend, system shall not let other users add as friend.

Facebook: Create an event	
Actors	User
Description	<p>Users use facebook in order to inform their friends and other people who are friends of their friends about activities and events.</p> <p>On the right hand side of the screen, there is a link that opens the events page and at the left hand side of this events page, there is a box which link to create an event.</p>
Precondition	User login to his account
Stimulus	Clicking "Create an event" button.
Response	Creat an event.
Flow of events	<ol style="list-style-type: none"> 1. User reaches the events interface from the homepage of facebook 2. The necessary information is typed on the required area 3. User clicks create an event to finish creating 4. User is notified of the successful operation he has performed.
Post condition	the event is added to event list.
Comments/assumptions	Click here to enter text.

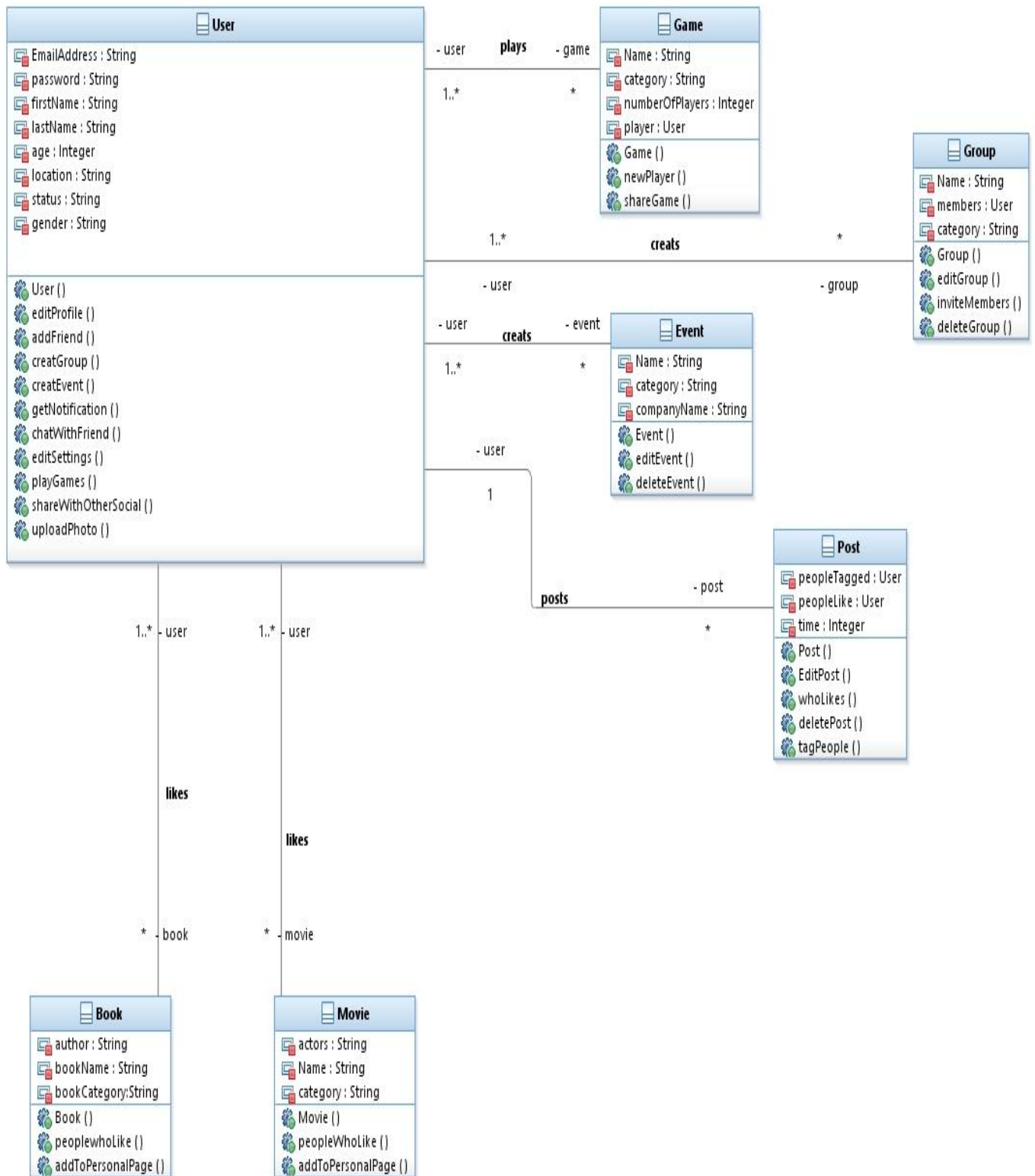
Facebook : Find friends	
Actors	User
Description	Find friends is one of the main features of facebook. This function enable users to find their friends by searching with their friends' name.
Precondition	<ol style="list-style-type: none"> 1. User login to his account 2. The typed names must be similar with the account name of their friends
Stimulus	User write a name in the search box.
Response	Search for frinds
Flow of events	<ol style="list-style-type: none"> 1. User reaches find friend interface from every page. 2. Users types the name of his/her friend in the .search box 3. The result are shown on the screen
Post condition	The result are shown on the screen
Comments/assumptions	System shall not view the users who do not want to show themselves at search result.

Facebook: Create a group	
Actors	User
Description	Users can create groups for common shared view, activity or information. At the left hand side of the screen, there is create group link. They must name the group, add members ,and select privacy feature .After creation, admin can send a request to others to join group.
Precondition	User must login to his account.
Stimulus	Clicking create a group link.
Response	Create a group
Flow of events	<ol style="list-style-type: none"> 1. User reaches the create group interface from the homepages of facebook. 2. The necessary information is typed in the required areas 3. User presses "Create a group" button. 4. User is notified of the successful operation has performed.
Post condition	the group is added to group list.
Comments/assumptions	Click here to enter text.

Facebook: Sending message	
Actors	User
Description	Facebook enable users to send messages to each other. Sending message interface will be available from messages menu in the homepage and this will let users to send messages to their friends. In addition, there will be direct links at the profile pages, which lets users send messages to the profile owner they are visiting, therefor users will be able to send messages to the people that are not their friends
Precondition	<ol style="list-style-type: none"> 1- User must login to his account. 2- Receiver should have set his privacy level to receive message from other users.
Stimulus	Clicking message button
Response	Sending message.
Flow of events	<ol style="list-style-type: none"> 1. User reaches the sending message interface from the homepage of Facebook. 2. User chooses a friend's name by writing it. 3. User types the message he wants to send. 4. User clicks send button.
Post condition	Message sent.
Comments/assumptions	Click here to enter text.

Facebook: Publish on wall	
Actors	User
Description	publish on wall is one of the main features of facebook. Enable users to share thoughts, uploading photos, uploading video , share location and tag people User post will appear on his timeline
Precondition	User login to his account
Stimulus	Clicking on “What’s on your mind?” blank area
Response	Publish a post on wall
Flow of events	1. User reaches publish on wall interface from homepage or his timeline. 2. user type on the “What’s on your mind” blank area, uploading photo or video, share location and tag people. 3. click “post” button.
Post condition	Post will appear on user’s timeline
Comments/assumptions	User has option to publish a private or public post

2.2. Class diagram



2.3. Sequence diagram

