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Subject Name- Software Engineering Lab

Subject Code-PCCIT691

Project Name- Social Media Site

Submitted by

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Software Requirement Specification (SRS) of Social Media Site.

INTRODUCTION.

a) Purpose.

Social networking is a strategy to connect and discuss all sorts of ideas through individuals and communities. A social media site helps to connect people with one another based on the various information about them that they have shared on the platform. So the purpose of the social we platform are:

Help to create communities of people who share interests and activities.

Help people to connect to one another at low cost.

Create a platform of social interactions and personal relationships.

b) Scope.

Social networking has tremendous prospects in future. The bright future of social networking is also proven with the fact that the technology is integrated in mobile phones as well. According to a report on Nielsen wire about two-thirds of the world's population participates in some form of social network. This accounts for close to 10 percent of all the time spent on the internet. Social networking has also become an important marketing tool for various brands and companies.

c) Definition, Acronyms and Abbreviation.

Admin– Administrator is the controller of all the users, manager and maintaining all profiles in this site.

User– registered person in this site and posts their views.

User ID: A user identification number to enter the system.

Password: A word that enables one to gain admission into the system.

HTML (Hyper Text Markup Language): It is used to create static web pages.

CSS(Cascading Style Sheets): used to style an HTML document.

React.js: an open source Javascript library that is used for building user interfaces.

MySQL- Open source relational database management system.

d) Reference.

www.google.com

www.wikipedia.org

Fundamentals Of Software Engineering by Rajiv Mall.

e) Overview.

This software Requirement Specification (SRS) documents key specification, functional & nonfunctional requirements of social network site. Social networking sites tend to share some conventional features. Most often, individual users are encouraged to create profiles containing various information about themselves. Users can often upload pictures of themselves to their profiles, post text entries for others to read, search for other users with similar interests. In addition, user profiles often have a section dedicated to comments from friends and other users. There is also a separate page for the admin sign in. That page is only accessible to the admins and they can sign in there by using the admin id and password.

Feasibility Study

a) Technical Feasibility

We can strongly say that it is technically feasible, there will not be much difficulty getting required resources for the development and maintaining the system as well. All the resources needed for the development of the software as well as the maintenance of the same is easily available in online (free of cost), here we are utilizing the resources which are available in our device already.

b) Economical Feasibility

Development of this application is highly economically feasible. We do not need to spend much for the development of the system. The only thing is to be done is making an

environment for the development with an effective supervision. If we are doing so, we can attain the maximum usability of the corresponding resources. Even after the development, we will not be in a condition to invest more in this. Therefore, the system is economically feasible.

Overall Description.

a) Product Perspective

The social networking website allows users to connect with their family and friends all over the globe. It gives a global platform for users around the world to connect with each other. The platform will greatly enhance the online socializing experience of the user.

b) Product Function

The entire authority of the system is to the founder and the admins of the system.

A newly created user is authenticated against the given email address.

User can register to the social networking site via login whenever he wishes to do so.

User can create his profile, add, edit information, set visibility to various profile sections, see his own profile and upload profile picture to his profile.

With the application users can connect with their friends and family through a common platform.

user can search for his friends and will be shown appropriate results if matching profiles are found.

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c)User Characteristics

Standard users may belong to any demographic group including any gender, nationality that can use computer's browser. The site requires its users to be above 13 years of age. User interface is in English language so users should have a basic English reading knowledge.

d) Constrains

1) The website will support the following browsers: Microsoft Edge, Google Chrome and Firefox.

2) The website supports English Language only.

3) The website requires certificates issued by CA to use HTTPS.

4) The first version of the website is intended to be viewed best on a desktop browser.

e) Assumption and Dependencies

- 1) There will be availability of internet via 3G, 4G, 5G or Wi-Fi.
- 2) The user of the site should be well acquainted with English Language.
- 3) The user should have a valid e mail address in order to register into the website.
- 4) Central server of the system must be able to handle all the incoming requests simultaneously.
- 5) The user has a basic knowledge of computer and internet.

External Interface Requirement.

a) User Interface

Standard users will use the web browser to use the website. Hence, it shall have a login page for users to login into the site. For those who are first time users, they will have to fill up sign in details. After logging into the system, the user will be shown his profile and the wall containing the posts shared by user's friends. User is given options to log out, search people and change any of his personal settings on his home page.

b) Hardware Interface

Processor: Intel Pentium IV 2.0 GHz and above.

RAM: 512MB and above.

Hard Disk:80GB and above.

Free Disk Space- 300GB

c) Software Interface

Operating System: windows XP and above.

Browser: Google chrome, Microsoft Edge, Firefox.

Database: MySQL server.

d) Communication Interface

This social media website is based on HTTPS. TCP/IP is used for chatting functionality.

System Features

Sign in- new users have to sign in to the platform in order to access it. They can do that by giving their email id and phone number.

Login- once the user has signed in and their account is created, they can login to their account by giving their user id and password.

Update Profile- once logged in to the account, the user can make modifications to their profile content and per their requirement.

User Profile- Users will have the option to include various information about themselves on the profile like their hobbies and interests, educational background, religious beliefs etc.

Search- The user can search for other profiles on the platform by using the search option. If matching profiles are found they would show up.

Friend/Ally- User can send friend request to other users as per their interests. The user at the other end can either accept or decline the request. If the request is accepted the two users will become friends or allies of each other.

Posts- The user can post content on their profile either in the form of text or image.

Post React- User can react to the posts of other users on the platform.

Log out- Users can safely log out of the system once they are done with all the activities.

Admin Login- the admins of the platform will be able to log in to the system through a separate login page which will only be accessible to the admins.

Other Non- Functional Requirements.

a) Performance Requirements

Scalability

System should be able to handle a large number of users. For e.g. handling around thousand users at the same time.

Speed

The application should be fast. It should not slow down with increase in the number of users. Search functionality should be fast to enable better end-user experience. The system should be quick enough to be able to respond to the user actions within a short period of time. E.g. the search user functionality of the site should perform a quick search among the users on the database.

b) Security Requirements

- 1) During user registration the given email address is validated.
- 2) The password should be at least 8 characters and should contain at least one number and one special character.
- 3) Password is stored as hash value in the database.
- 4) We are transferring all the data via HTTPS so that the data is encrypted during the transit. Thus safeguarding the user information.
- 5) Re- Captcha service is used during registration for human identification.

Software System Attributes.

a) Usability

User interface should be simple and easy to understand for the user.

b) Availability & Reliability

- 1) The system should be available at all times. It should be ensured that there should be minimum or no downtime for better user experience.
- 2) The system should be reliable. It should yield correct results if the user performs searches for a person. Also, if the user sends a message the system should ensure that the correct message is delivered to the correct destination without any loss or change of content.

c) Testability

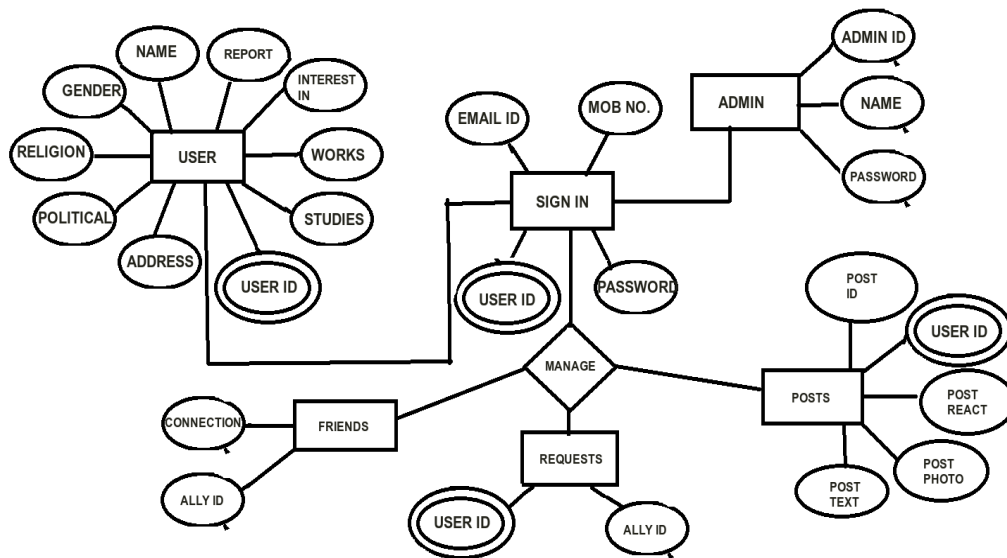
The software should be testable. A separate test environment should be set up where the testers and the quality assurance engineers can test the application for bugs or incomplete requirements.

d) Maintainability

The system should be developed in such a way that it is extensible. It should be easy to incorporate new feature requirements or accommodate a change in the existing requirements.

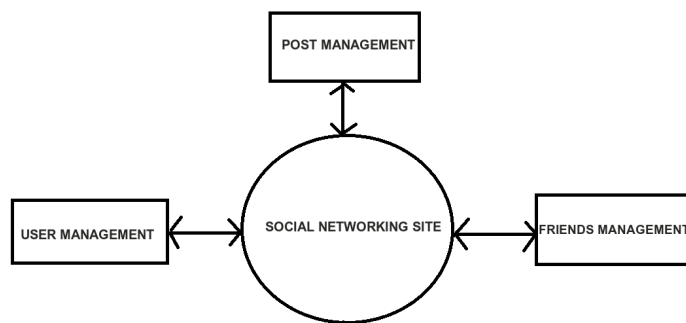
Diagrams

A) ER Diagram

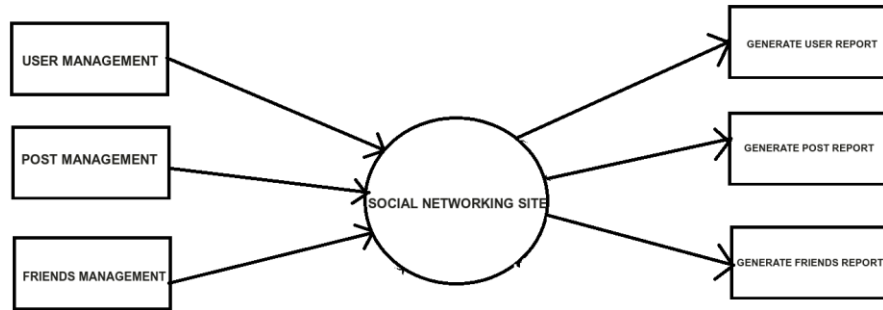


B) Data Flow Diagram

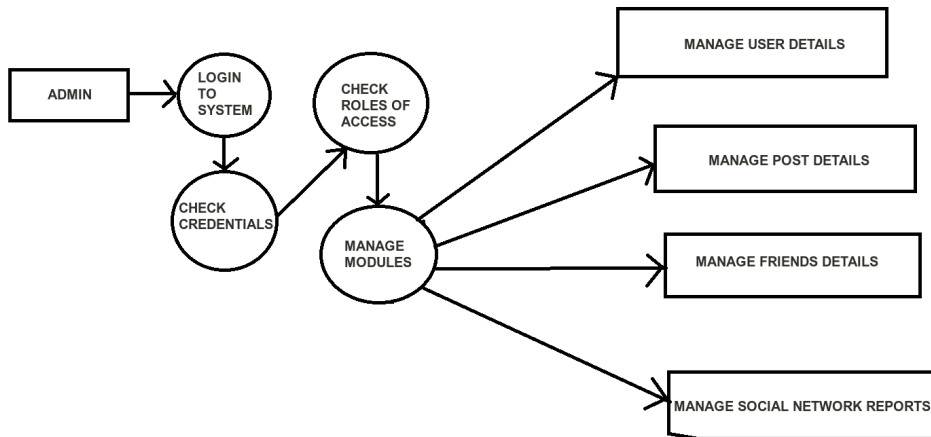
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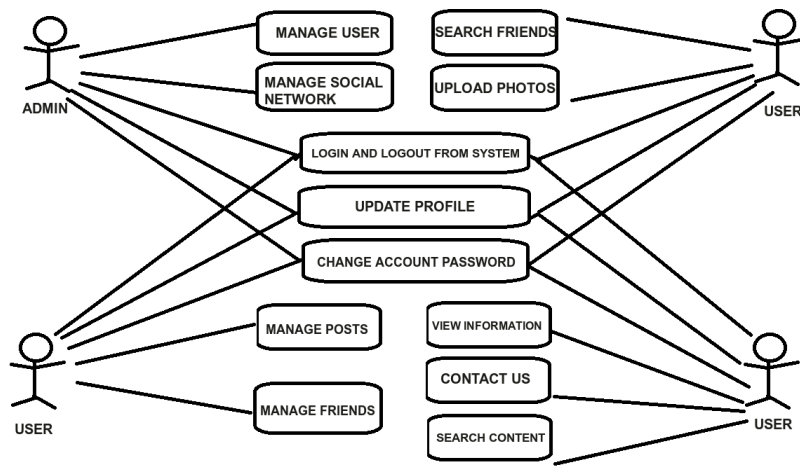
Level 1 DFD



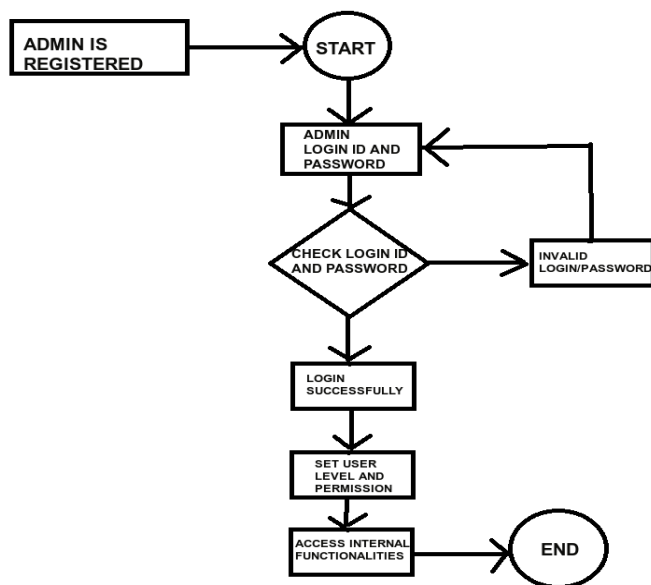
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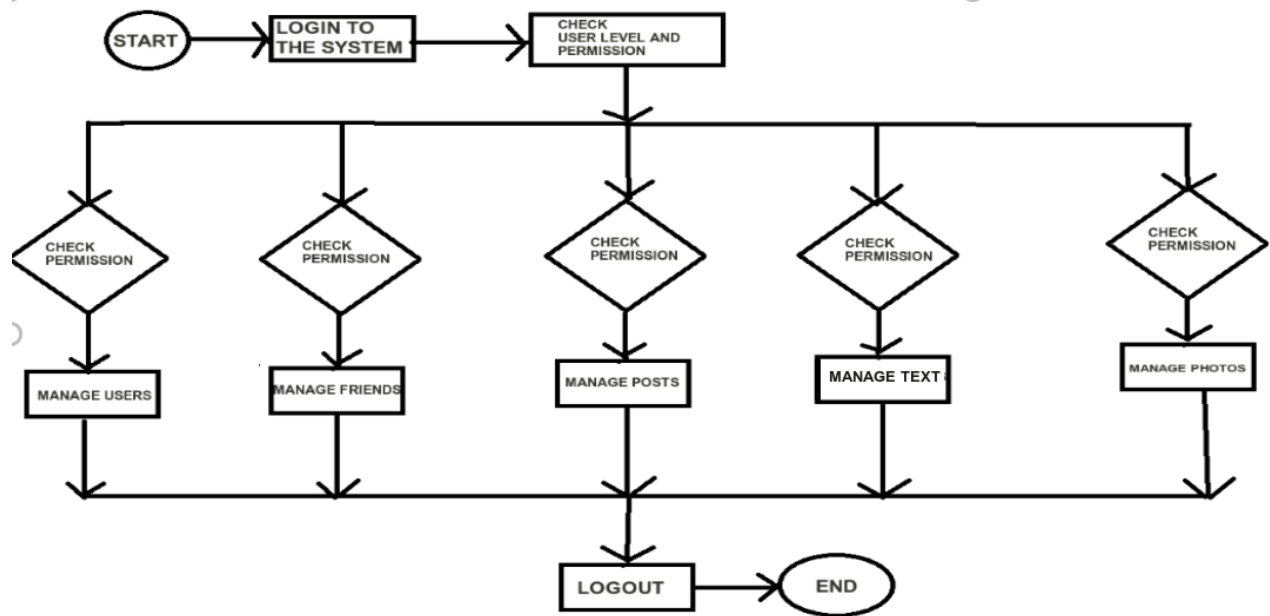
Use Case Diagram



UML Activity Diagram (Admin)



UML Activity Diagram(User)



Coding and Implementation

Backend Images

Frontend Images

Testing

Result

The social media site (SocialWe) was successfully designed and developed as per the specifications. The system was found to work satisfactorily without any error under all conditions.

Conclusion

Social media is one of the most emerging aspects of the internet which is very helpful to every one of its users. The main aim is to develop a platform that would help users to connect and communicate with each other easily. User friendliness is must as the user should be able to use the platform without much complications.