

Social Networking Site: Student Space

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Abstract: In past few years, social networking website become very popular. These social networking websites are available for publicly. Anyone can create account, groups and login. We produce a social networking site having college level scope. This site available for college students, staff and other college members.

The purpose of our project is to provide social media among the college students and communication with friends and staff. Before the project we studied the personal use of social site and communication skill with friends. Result indicated that college students were using at least one social site, thus we propose "Student-Space" social networking to fulfill the students needs.

In our project we are going to provide college notification, college information, daily activities, college news, student corner for uploading and reading latest technical news and online exam.

Keywords- college students, social media, communication.

Introduction:

In past few years, social networking websites become a popular networking. It has been

proven that friends can keep in touch and share feelings, as well as new updates through social

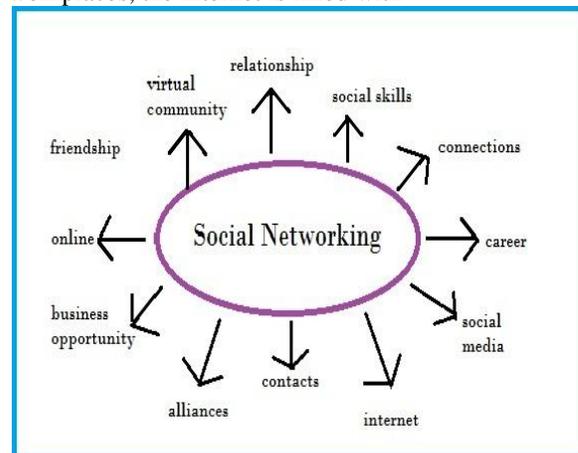
networking sites. Social networking involves use of online platform or website that enables people to communicate for social purpose through varieties of services most of which are web

based and provide opportunity to people to communicate over internet.[1]

"We define social networking sites as web based services that allows people to create public or semipublic profile and articulate the list of other users with whom they share connection." Today social networking commonly refers to all those activities that are carried out within specific online services that provides free space and software tools which allow to create networks of people. In other words, a social networking service is a Web site that allows individuals to construct a public or semi-public profile.

Social Networking:

Social networking is the grouping of individuals into specific groups, like small rural communities or a neighborhood subdivision, if you will. Although social networking is possible in person, especially in the workplace, universities, and high schools, it is most popular online. This is because unlike most high schools, colleges, or workplaces, the internet is filled with



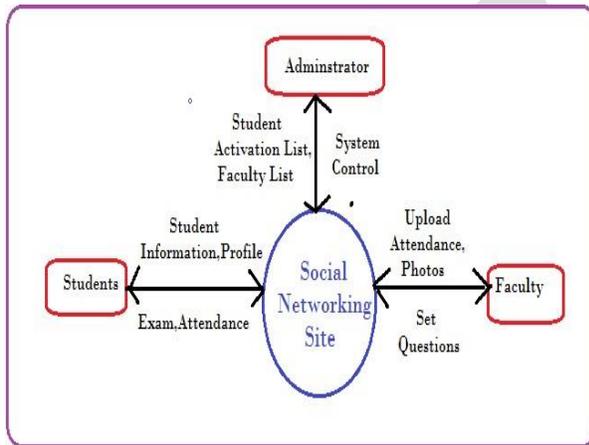
Fig(1): Social networking.

millions of individuals who are looking to meet other people, to gather and share first-hand information and experiences about cooking, golfing, gardening, developing friendships professional alliances, finding employment, business-to-business marketing and even groups sharing information about baking cookies to the thrive movement.[2]

SYSTEM ARCHITECTURE

The purpose of system architecture is to provide easy interaction between users and easily manage them. The administrator control the interaction between user and manage the user accounts.

Following figure shows the system architecture of Social networking site. Social Networking site acts as a intermediate among students ,faculty and administrator.



SYSTEM WORKING

1]Student ForumModule:

In this module we have provided two functions first we provide facility to upload and download aptitude question in pdf format and secondly provides upload and download latest technology in pdf format. Student can download the pdf and read it. Faculty can upload the aptitude questions and latest technology in pdf form which can read by students, thus student get latest technology and improve there aptitude.

2] Attendance Module:

We proposed this module to provide the facility of attendance to the student. This module shows the monthly attendance of students. It displays the attendance in subject wise. It calculates the attendance in percentage and display it. The Faculty only adds the respective subject attendance monthly and module calculate percentage. Student can read his attendance but could not change or update his attendance. This module reduce the faculty efforts and easily convey subject attendance to the respective student. This help the student to aware about his attendance and to improve the attendance.

3]Chat Corner Module:

In this module we have provided the facility to communicate with each other. User can communicate with each other through message. we have provided different modes of communication such as student to student, student to faculty. This module helps to maintain the relationship between students and faculty. It provide easy way to exchange their knowledge. In this way students share their emotions, fact, feelings.

4]E- library Module:

In this module we have provided the facility to upload and download E-books. Here student can download the e-books and read it and faculty can upload the e-books. Which will get the platform to student to grab the knowledge.This module provide the pool of knowledge student can easily access and improve their knowledge.

5]Notice Module:

We have provided this module to notify the student about college phenomenon. In that we provide daily update info related student knowledge. Faculty can upload notice that will be read by students.

6]Online Exam Module:

We have provide this module to take online exam of students. In that faculty of college can set question to

take online exam. This exam contain subject wise question for particular year. Student can choose the subject for exam as they wish. This exam provide multiple choice question of that particular subject. Student just have to click on right option as provided. Module count answered and unanswered questions and display it with their score in subject. Faculty has provide the privilege to set the questions and time. At the time of online exam if times up then it automatically finish the exam and display the score with count of answered questions. We have also provide the aptitude test. Student can give aptitude test and check their aptitude knowledge.

- (b) Represent the message as an integer m in the set $\{0; \dots; n-1\}$.
- (c) Compute $c = mb \pmod n$.
- (d) Send the ciphertext c to A.
- 2. *Decryption.* To recover plaintext m from c , A should do the following:
 - (a) Use the private key a to recover $m = ca \pmod n$. [3]

ALGORITHM

For the security purpose we use the RSA Algorithm. This Algorithm is divided into three parts .

Algorithm(1). Computing multiplicative inverses in Z_n
 INPUT: $b \in Z_n$.

- OUTPUT: $b^{-1} \pmod n$, provided it exists.
1. $n_0 \leftarrow n, b_0 \leftarrow b, t_0 \leftarrow 0, t_1 \leftarrow 1, q_1 \leftarrow [n_0/b_0], r_1 \leftarrow n_0 - q_1 \cdot b_0$
 2. while $r_1 > 0$ do
 - (a) $temp \leftarrow t_0 - q_1 \cdot t_1$
 - (b) If $temp \geq 0$ then $temp \leftarrow temp \pmod n$. Otherwise, $temp \leftarrow n - ((temp) \pmod n)$.
 - (c) $t_0 \leftarrow t_1, t_1 \leftarrow temp, n_0 \leftarrow b_0, b_0 \leftarrow r_1, q_1 \leftarrow [n_0/b_0], r_1 \leftarrow n_0 - q_1 \cdot b_0$.
 3. If $b_0 \neq 1$ then b has no inverse modulo n . Otherwise, $b^{-1} \leftarrow t_1 \pmod n$, return(b^{-1}).

Algorithm (2). Key generation for RSA public-key encryption

SUMMARY: each entity creates an RSA public key and a corresponding private key.

Each entity A should do the following:

1. Generate two large random (and distinct) primes p and q , each roughly the same size.
2. Compute $n = p \cdot q$ and $j(n) = (p-1) \cdot (q-1)$.
3. Select a random integer $b, 1 < b < j(n)$ such that $\text{gcd}(b, j(n)) = 1$.
4. Use Algorithm (1) to compute the unique integer $a, 1 < a < j(n)$, such that $ab \equiv 1 \pmod{j(n)}$.
5. A's public key is (n, b) , A's private key is a .

The integers a and b are called the *encryption exponent* and the *decryption exponent*, respectively, while n is called the *modulus*.

Algorithm (3). RSA public-key encryption

SUMMARY: B encrypts a message m for A, which A decrypts.

1. *Encryption.* B should do the following:
 - (a) Obtain A's authentic public key (n, b) .

Result Analysis:

We analyze our system for the single user. We observe that our system work very well for single user. It produce quick response to user. Our analysis is shown in following table.

User	Action Performed	Response	Remark
User-1	Registration	Record Saved	Fast

Figure(3):Analysis table for single user

We analyze our system for five user and observe the actions and response time of our system. We allow the five user to access our system for same instance. Our analysis is shown in following table.

User	Action Performed	Response	Remark
User-1	Registration	Record Saved	Fast
User-2	Login	Login	Fast
User-3	Chat	Message Sent	Medium
User-4	Online Exam	Select Option	Fast
User-5	E-library	Download	Slow

Figure(4):Analysis table for five user.

For the above analysis we can say that our system performance is well. Afterword we check system performance for 10 user. . We allow the ten user to access our system for same instance. Our analysis is shown in following table.

User	Action Performed	Response	Remark
User-1	Registration	Record Saved	Fast
User-2	Login	Login	Medium
User-3	Chat	Message	Medium

		Sent	
User-4	Online Exam	Select Option	Fast
User-5	E-library	Download	Fast
User-6	Photo Gallery	Display Photos	Medium
User	Action Performed	Response	Remark
User-7	Chat	Message Sent	Medium
User-8	Online Exam	Select Option	Medium
User-9	E-library	Download	Slow
User-10	Photo Gallery	Display Photos	Medium

Figure(5):Analysis table for ten user.

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Conclusion:

Thus we conclude that our project provides social media among the college students and communication with friends and staff. In our project we have provided facilities such as college notification , college information ,daily activities ,college news ,student corner for uploading and reading latest technical news .We have also provided the facility of online exam to conduct exam and check their knowledge about particular subject.

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