**INSOME SOCIAL NETWORKING**

A project report submitted in partial fulfillment for the degree

of

**B. Tech in Computer Science and Engineering**

of

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**CERTIFICATE**

This is to certify that the project work, entitled “**INSOME Social Networking**” submitted by Mr. Tapadipto Banerjee has/have been prepared according to the regulation of the degree B. Tech in Computer Science and Engineering of the MAKAUT. The candidate(s) has/have partially fulfilled the requirements for the submission of the project work.

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**ABSTRACT**

The report under consideration represents the effects of Social Media on our daily circle of lives. The usage of Social Media is increasing day by day. There is a positive and as well as negative aspects to everything. The study was conducted to check out the impact of Social Media on the lives of different ages of people and genders. After conducting the research, it was concluded that Social Media has entered very much into the lives of people and affecting their daily lives. People spend most of their time on social networking sites. Middle-aged persons were more attracted to it and there is no effect of gender on it. This information states that social media has very much affected our lifestyles.

The advent of the internet in the 1990s led to a major development in the world of communication hence the introduction of social networking sites. Social media platforms such as Facebook, Twitter, WhatsApp, Snapchat, and Instagram have single handily changed society and the way we view ourselves and other people. Take a walk down any high street and around 70 percent of people will be using a mobile device or will be clutching one as if it was a newborn child.

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**CHAPTER 1. INTRODUCTION**

The birth of the Internet and its success in changing our society has been largely researched in various subjects and defined in various terms. Social media is the most recent form of media and has many features and characteristics. It has many facilities in the same place like communicating, texting, image sharing, audio, and video sharing, etc. Its usage is increasing day by day all over the world.

The usage of Social media is causing devastating effects on people. Its usage has caused different problems in society. The study aims to investigate the impacts of Social Media on the people of the modern era. Following are some factors that were targeted during the study:

* Usage among different ages
* Mostly used media
* Impact on youth
* Impact on social life
* Impact on emotions
* Impact on daily lifestyle

A social networking site is **an online platform that allows users to create a public profile and interact with other users**. Social networking sites usually allow a new user to provide a list of people with whom they share a connection, and then allow the people on the list to confirm or deny the connection. After connections are established, the new user can search the networks of connections to make more connections.

A social networking site is also known as a social networking website or social website.Social networking sites have different rules for establishing connections, but they often allow users to view the connections of a confirmed connection. They may even suggest further connections based on a person’s established network.

Some social networking websites, like LinkedIn, are used for establishing professional connections, while sites like Facebook straddle the line between private and professional. There are also many networks that are built for a specific user base, such as cultural or political groups within a given area, or even traders in financial markets.

Social networking websites are easy to confuse with social media sites. A social networking site is any site that has a public or semi-public profile page, including dating sites, fan sites, and so on. A social media site has profiles and connections, combined with the tools to easily share online content of all types.

* Advantages:

The following steps that give the detailed information on the need of the proposed system are:

**Performance**: During the past several decades, there is a need for effective and user-friendly social networking sites that gives facility to reduce complexity. So our web-based computerized system is undertaken which is very user friendly and anyone can access it from one’s home.

**Efficiency**: The basic need of this website is efficiency and simplicity. The website should be efficient so that it can handle different entries according to their choice and user can easily view these entries and at the same time, they can also request them.

**Control**: The complete control of the project is under the hands of an authorized person i.e., the Admin who has the password to access this project and illegal access is not supposed to deal with. All control is under the administrator and the other members have the right to just see the records not to change any transaction or entry.

**Security**: Security is the main criterion for the purposed system. Since illegal access may corrupt the database. So security has to be given in this project.

* Disadvantages:

> It opens up the possibility for hackers to commit fraud

>It can ruin a relationship

>It can be a waste of time

1.1 PROBLEM STATEMENT:

· So far there is still a need for an efficient social networking website.

· There is yet no social networking website that provides efficient access and easy communication.

· There is an overhead of traffic on the net that makes the chaotic situations and a long time to access.

· Unavailability of simplicity through which one can communicate.

· In this online world where everyone wants to connect, so that one can better coordinate with others and make work easy with enjoyment and full of joy.

The intended audience for this document is the developing team, the testing team, and the end-users of the product.

1.2 SCOPE:

The website “VISITING WIZARD” will be used to connect the people in a very easy, simple, and efficient way and one can share their feeling, information, ideas…..and many more…, the services offered to an individual’s choice(s) and availability for making friends among various areas and destinations. A log concerning the registration and requests for friends and various other features by users are also maintained. The website will also provide benefits to verified user(s).

The website, according to the following proposed solution, will ease the connection people s thereby converging the world into a small system.

1.3 PROPOSED SOLUTION:

VISITING WIZARD, as the name suggests is social networking allowing users to interact with each other and exchange their views. This project also enables the users to see the details of their friends upload their photographs, add their friends, leave a scrap & send testimonials.

1. The project’s objective is to enable users to communicate with other people.

2. It allows the user to search for friends.

3. This website provides users the ability to upload photographs.

4. It also enables the user to leave the scraps & send the testimonials.

The software has different modules which help it to achieve its objectives, those are:

REGISTER TO BE A MEMBER: Logged users can EDIT their PROFILE, and upload the photographs.

PROFILE: Logged users can see their details and if they wish to change any of their information they can edit it.

FRIENDS: Logged users can see their friend list and if they wish to add friends.

SCRAPBOOK: This module enables the user to send the scarps to their friends.

TESTIMONIAL: This module enables the user to send the testimonial to their friends.

PHOTO GALLERY: This module enables the user to upload the photos to their photo gallery and maintain their album.

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**CHAPTER 2. LITERATURE SURVEY**

**2.1 SOCIAL NETWORKING**

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**2.1.1 Summary:** The Internet has rapidly evolved from being merely an information sharing platform to being a social networking platform used by individuals to share content, opinions, and information. Social networking is a global phenomenon that has revolutionized how people interact with each other. It affects nearly every aspect of our life: education, communication, employment, politics, healthcare, social relationships, and personal productivity. A social networking service (SNS) is an Internet-based platform used in building and developing social relations among people. It provides means by which users can interact online with people of similar interests, whether it be for romantic or social purpose. It allows users to share emails, instant messaging, online comments, wikis, digital photos and videos, and post blog entries. It also offers people with disabilities a chance to make their thoughts and opinions known in a virtual environment. Social networks serve dual roles as both the suppliers and the consumers of content. They provide the user with a choice of who can view their profile. A profile is generated from answers to questions, such as age, location, interests, etc. Some sites allow users to upload pictures, add multimedia content or modify the look and feel of the profile, post blogs, comment on postings, compile and share list of contacts. To protect user privacy, social networks typically have controls that allow users to choose who can view their profile, contact them, add them to their list of contacts, and so on.

**2.1.2 APPLICATIONS**: Social networking applications have become important services that provide Internet-based platforms for their users to interact socially. Common applications involve computer-mediated social interaction, education, business, finance, healthcare, politics, religion, and crowd sourcing.

* **Social Interaction**: Social networking sites facilitate computer-mediated social interaction and make it possible to connect people who share interests and activities across political, economic, and geographic borders. They provide a modern form of entertainment. People use them to meet new friends, find old friends, locate people with similar interests, and staying in touch with old acquaintances. They also provide an online environment for people to communicate and exchange personal information for dating purposes. Some job seekers use social networks in their job search increasing their chances of receiving job offers and finding gainful employment [3].
* **Education:** Social networks are impacting the way students and educators engage in learning. They are now used for learning, educator professional development, and content sharing. Scientific communities use social media to exchange knowledge. Researchers and librarians use social networks frequently to maintain professional relationships and share ideas. Social media can become research and learning networks. Social networking media such as Facebook, Twitter, and Instagram are widely used at many universities with each university having at least a page on a site [4]. Privacy, real friendship, timeconsumption, and miscommunication are challenges facing education through the social networking. On the other hand, flexibility, repeatability, convenience, and accessibility are the key benefits [5].
* **Business:** Social networking between businesses is another great application. It can be an effective promotional tool for businesses, entrepreneurs, actors, musicians, or artists. Companies use social networking sites in five major ways: to create brand awareness, as an online reputation management tool, for recruiting, to learn about new technologies and competitors, and to intercept potential prospects [6]. Social networking sites help businesses to advertise their products, recognize consumer’s needs, and gather opinions on diverse viewpoints. New opportunities for global finance are created through the use of virtual currency in social networks. Social networks allow consumers to share their personal experience which help early adopters make informed purchase decision and reduce the risk of buying a new product.
* **Healthcare:** Social media enables different types of social connectivity among different stakeholders such as doctors, patients, and caregivers. Social networking is an effective tool for teaching and learning for doctors and nurses as SNS is used to provide new information from research and assist in providing quality care to their patients. Virtually all aspects of healthcare can be inherently affected by these technologies. Examples of health-related social networking sites include healthchapter, Inspire, DailyStrength, ToolsToLife, Health Care 2.0, LiveStrong, Everydayhealth, revolutionhealth, MyCancerPlace, Planet Cancer, No Surrender, Prostate Cancer Infolink, Psych Central, sobercircle, diabetic connect, and DailyPlate [7].

**2.1.3 CHALLENGES AND ISSUES:** As social media attempt to fulfill cognitive, affective, personal, and social needs; it is in turn affecting everyday life, including relationships, family, marriage, school, church, and entertainment. Like any other technology, the problematic use of social networking media and its adverse consequences have become prevalent. Although a minimum age is required for joining SNSs, many children/students misrepresent their real ages and join. These students learn about safety and privacy issues in a haphazard way and suffer from training deficiency [9]. Studies have shown that the use of social networks among students, particularly in Africa, constitutes distractions because students tend to spend a good deal of time on the networks. In the past, some regarded social networking as a distraction and offered no educational benefit for students in junior or high school. So blocking these social networks was considered a form of protection for students against wasting time, addiction, sexual predators, cyber bullying, and privacy theft. Others feel that the schools that block social networking services are preventing students from learning the skills the youths need in navigating the digital world with confidence and therefore regard blocking social networking sites as counterproductive. Some have contended that social networking is an impoverished version of conventional face-to-face social interactions, and it produces negative outcomes such as loneliness and depression for users who use the technology heavily. Social networking services have been used for bullying purposes and child pornography. Since there are no limitations as to what individuals can potentially post online, people can post offensive remarks or pictures. Privacy on social networking sites is an important issue. For example, third parties often use information (such as personal information and profile) posted on social networks for a variety of purposes. Privacy may involve whether or not companies should have the right to look at employees' social network profiles. Privacy concerns differ between users according to their gender and personality. Some studies have indicated that women often have more privacy concerns than men. Another dark side of SSN is that they are becoming increasingly popular tools for methods of ending relationships and friendships. We must ensure that SSN does not continue to be bastardized by bad influences that prey on the vulnerable. Culture plays a major role on how people interact on SNS because it defines norms and rules on what is accepted and what is not accepted. Culture can limit the people to whom a person can interact if they want to withhold their identity. For example, a global culture has emerged in India as a result of the SNS; the technological changes have not only changed the quality of life but also the social architect of society [10].

2.2 **Social Network Sites: Definition, History, and Scholarship**

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2.2.1 Summary:

Social network sites (SNSs) are increasingly attracting the attention of academic and industry researchers intrigued by their affordances and reach. This special theme section of the Journal of Computer-Mediated Communication brings together scholarship on these emergent phenomena. In this introductory article, we describe the features of SNSs and propose a comprehensive definition. We then present one perspective on the history of such sites, discussing key changes and developments. After briefly summarizing existing scholarship concerning SNSs, we discuss the articles in this special section and conclude with considerations for future research.

Since their introduction, social network sites (SNSs) such as MySpace, Facebook, Cyworld, and Bebo have attracted millions of users, many of whom have integrated these sites into their daily practices. As of this writing, there are hundreds of SNSs, with various technological affordances, supporting a wide range of interests and practices. While their key technological features are fairly consistent, the cultures that emerge around SNSs are varied. Most sites support the maintenance of pre-existing social networks, but others help strangers connect based on shared interests, political views, or activities. Some sites cater to diverse audiences, while others attract people based on common language or shared racial, sexual, religious, or nationality-based identities. Sites also vary in the extent to which they incorporate new information and communication tools, such as mobile connectivity, blogging, and photo/video-sharing.

The purpose of this introduction is to provide a conceptual, historical, and scholarly context for the articles in this collection. We begin by defining what constitutes a social network site and then present one perspective on the historical development of SNSs, drawing from personal interviews and public accounts of sites and their changes over time. Following this, we review recent scholarship on SNSs and attempt to contextualize and highlight key works. We conclude with a description of the articles included in this special section and suggestions for future research.

**Types of social network sites**

The success of any prosperous social network can be explained by the ability to meet its users’ needs. By following our list of the most prominent types of social networking channels, you will see what user requirements can be converted into a business opportunity.

|  |  |  |
| --- | --- | --- |
| **Type of social network** | **What user needs you can convert into profit** | **Popular examples** |
| Social networking sites (also known as interest-based networks) | You can cover the needs not only of the Internet users to share and create content, keep in touch with friends, and find like-minded people with similar interests but also of brands that can reach their potential buyers. | [Facebook](https://www.facebook.com/), [Instagram](https://www.instagram.com/) |
| Consumer review sites | Consumers’ desire to access businesses online, use their products and services, and leave corresponding reviews can be used to build a social media website that will ultimately bring high revenue. | [Yelp](https://www.yelp.com/) |
| Discussion forums & Publishing platforms | Such social networking websites may be best suited to cover users’ needs to exploit a high-quality knowledge base where they can ask questions, discuss them, and publish engaging textual content. | [Reddit](https://www.reddit.com/), Quora, [Medium](https://medium.com/), [Academia](https://www.academia.edu/) |
| Entertaining networks for multimedia sharing | The concept of diverse video and audio content sharing can be the core idea of your future social media hosting website. Its great potential to gather revenue from ad sellinbrandsds’ promotions, and premium subscriptions are the defining reason to opt for this segment. | [Youtube](https://www.youtube.com/), [Flickr](https://www.flickr.com/), [Vimeo](https://vimeo.com/) |
| Content curation sites | This type of website is a perfect ground to convert human desire to sort and share collected content according to specific topics into an impressive platform. | [Pinterest](https://www.pinterest.com/) |
| Relationship networks | The insatiable desire of people to meet the right person can be used as a perfect business opportunity to build a social network website from scratch. | [PlentyOfFish](https://www.pof.com/), [Bumble](https://bumble.com/), [Tinder](https://tinder.com/) |
| Professional social networks | You can build a social website to help job seekers and companies match, and provide businesses with tools that can assist them to improve their brand recognition and satisfy the needs of users in professional networking. | [Linkedin](https://www.linkedin.com/) |

After this field overview, we suggest considering our vision on the reasons for social media platform development despite this plethora of social media websites.

2.2.2 Advantages:

**Bridging Online and Offline Social Networks**

Although exceptions exist, the available research suggests that most SNSs primarily support pre-existing social relations. Ellison, Steinfield, and Lampe (2007) suggest that Facebook is used to maintain existing offline relationships or solidify offline connections, as opposed to meeting new people. These relationships may be weak ties, but typically there is some common offline element among individuals who friend one another, such as a shared class at school. According to the newsgroups (Ellison et al., 2007) research in this vein has investigated how online interactions interface with offline ones. For instance, Lampe, Ellison, and Steinfield (2006) found that Facebook users engage in "searching" for people with whom they have an offline connection more than they "browse" for strangers to meet. Likewise, Pew research found that 91% of U.S. teens who use SNSs do so to connect with friends (Lenhart& Madden, 2007).

**Privacy**Popular press coverage of SNSs has emphasized potential privacy concerns, primarily concerning the safety of younger users (George, 2006; Kornblum&Marklein, 2006). Researchers have investigated the potential threats to privacy associated with SNSs. In one of the first academic studies of privacy and SNSs, Gross and Acquisti (2005) analyzed 4,000 Carnegie Mellon University Facebook profiles and outlined the potential privacy threats contained in the personal information included on the site by students, such as the potential ability to reconstruct users’ social security numbers using information often found in profiles, such as hometown and date of birth.

**Scholarships** Scholars are documenting the implications of SNS use concerning schools, universities, and libraries. For example, scholarship has examined how students feel about having professors on Facebook (Hewitt & Forte, 2006) and how faculty participation affects student-professor relations (Mazer, Murphy, & Simonds, 2007). Charnigo and BarnettEllis (2007) found that librarians are overwhelmingly aware of Facebook and are against proposed U.S. legislation that would ban minors from accessing SNSs at libraries, but that most see SNSs as outside the purview of librarianship. Finally, challenging the view that there is nothing educational about SNSs, Perkel (in press) analyzed copy/paste practices on MySpace as a form of literacy involving social and technical skills.

2.2.3 Disadvantage:

**Security Issues**

In another study examining security issues and SNSs, Jagatic, Johnson, Jakobsson, and Menczer (2007) used freely accessible profile data from SNSs to craft a "phishing" scheme that appeared to originate from a friend on the network; their targets were much more likely to give away information to this "friend" than to a perceived stranger. Survey data offer a more optimistic perspective on the issue, suggesting that teens are aware of potential privacy threats online and that many are proactive about taking steps to minimize certain potential risks. Pew found that 55% of online teens have profiles, 66% of whom report that their profile is not visible to all Internet users (Lenhart& Madden, 2007). Of the teens with completely open profiles, 46% reported including at least some false information.

**Space Limitations**

This overview is not comprehensive due to space limitations and because much work on SNSs is still in the process of being published. Additionally, we have not included literature in languages other than English (e.g., Recuero, 2005 on social capital and Orkut), due to our linguistic limitations.

2.3 **Impact of Social Networks on Society: A Case Study of Abuja**

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2.3.1 Summary

Social networking sites such as Facebook, WhatsApp,YouTube, and Twitter are amongst the most populardestinations on the web. No doubt in some cases this has contributed to Internet Addiction Disorder andfraudulent activities on the internet, but have they, on the whole, had a positive effect on our lives? Some believethat the benefits provided by social network sites such as Facebook and WhatsApp have made us better off as asociety and as individuals, and that, as they continue to be adopted by more diverse populations, we will see anincrease in their utility. Anecdotal evidence of positive outcomes from these technologies — such as educationaland business activities organized via Facebook or jobs found through LinkedIn — is well-known, but now agrowing corpus of research on social network sites supports this view too. Social networking sites, such asFacebook, Twitter, and WhatsApp are examples of communication tools available online. With the proliferation, ofsocial networking online comes an impact on society; a difference in what people do and how they do it. Changesin society are simultaneously useful and negative and this is the case with the impact of online socialnetworking. This paper aims to look at the positive effect that interaction through social networking sites has ontoday’s society about the modern media concept of greater interaction.

2.3.2 Advantages: The major advantages of social networks facilitate open communication, provide an opportunity to widen business contact and it makes it easier to keep in touch with family and friends. All these advantages help to impact Society positively, it boosts the economy and promotes love and intimacy among friends and family. The major disadvantages of social networks are They open up the possibility for hackers to commit fraud which can also be a threat to national and financial security, It can ruin a relationship: several relationships have been ruined since the emergence of Social networks and lastly,the social network has affected a lot of jobs at workplace and education of students at it waste peoples time due to the distraction.

2.3.3 Disadvantages: The disadvantages of owning a social network account it is still more advantageous so parents should allow their children to have access to the social network as it assists them in knowing what is happening around them and it also helps them to keep up open communication among friends and family, so also the youths should make better use of the positive aspect of Social networks.

2.4 **The Impact of Social Networking: A Study of The Influence Of Smartphone’s**

**On College Students**

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2.4.1 Summary

One of the most significant subjects for debate currently taking place is the explosion in the use of social networking by college students. Using social networking sites has become a basic practice in students’ daily routines. They use different social networking sites, such as Facebook, Twitter, YouTube, Academia, and MySpace, spending a long time on such sites. In recent years, there has been an ever-increasing interest in using smartphones to access these and other social networking sites. Through the existence of smartphones, students have become more attracted to using social networking 24/7. A survey conducted by Indian students at Ball State University found that the number of students who own a smartphone has more than doubled in three years - from 27% in 2009 to 69% in 2012 (Hingorani& Woodard, 2012). This number is expected to keep on growing in the coming years.

The use of social networking by college students has become increasingly relevant totheir academic lives. Smartphones have added great potential by enabling an increase in the use of social networking and the number of hours spent on such sites. Being online for a long time and being able to access different information from different sources at the same time could cause information overload. Students could face problems in filtering the information they receive and they might find it difficult to decide which sources they can trust and, therefore, which to select.

This study aims to investigate the impact of social networking on college students. To achieve this aim, the research employs various methodologies which include descriptive/interpretive studies of the literature and previous studies carried out by academics and industrial institutions. It also utilizes surveys taken among university students. A questionnaire was distributed among 179 students at different universities and higher education institutes in the Sultanate of Oman to explore the influence on college students of social networking using their smartphones.

There are three main findings: 1) college students spend a long time on social networking sites, 2) college students are facing problems in trusting, filtering, and selecting all the different information accessed from social networking sites, and 3) social networks affect students in both positive and negative ways.

2.4.2 Advantages

**Connectivity:** Connectivity is the biggest advantage offered by social media for students. Social media allows students to get connected with people all around the world. Using this feature, students will be able to make new friends, share thoughts and stay connected with their families.

In case of a student raises doubt regarding a subject, they can contact the tutors or friends anytime to solve it.

**User’s Category:**After collecting the data through the online survey, it was analyzed to investigate the trends of college students about the use of social media on their smartphones while they are at college. Table 1 shows the general information and demographics of the participants.

**Table 1: Respondent’s DemographicData**

|  |  |
| --- | --- |
| **Category** | % |
| **Gender** |  |
| Male | 35 |
| Female | 65 |
| **Age** |  |
| 18-25 | 99 |
| 26-35 | 1 |
| **Computer and Internet Skills** |  |
| Novice | 2 |
| Low | 5 |
| Medium | 56 |
| High | 33 |
| Expert | 5 |

We aimed to have an equal number of male and femalerespondents; however, the age should indicate the target audience which is ‘college students.’Many of the surveyed students (94%) rated themselves as ‘medium’to ‘expert’ in their computer and internet skills.This was expected because students nowadays are good at using technology.

**Learning Experience:**According to Liccardi et al. (2007), to explore the impact of social networks on the learning experience of students, there is a need to know how the universitygroupsstudents on socialnetworking sites and how students go about grouping themselves. The study shows that some universities tend to group their students to improve their educational performance. Furthermore, it proves the fact that online groups allow students to become members of collaborative online networks and study groups.

**Communication:**The purpose of the current study was to investigate the influence of college students using smartphones to access social networking sites. One of the more significant findings that emerged from this study was that the majority of students are members of some sort of social networking site. Most of them are using social networks for research, entertainment, and obtaining other explanatory materials related to their courses. However, when asked with whom they communicate the most when using social networking sites,71% said that it was with friends. This might be because social networking sitesare known for being useful communication tools,but students also mentioned that they occasionally usedthem to communicate with other students and faculty members as well assubject-matter experts.

**Entertainment:** Obviously, social media is a popular form of entertainment. There are various entertainment options available on social media. Students can use social media to relieve the stress they encounter during their studies. The likes and comments the people get to their posts make them happy. And also, some students use social media to play online games.

2.4.2 Disadvantages

**Information Overload:** When asked whether they thought that using social networking sites on Smartphonescould cause information overload in a way that makes it nearly impossible to process, it was found that 39% of students agreed, and only 15% of them disagreed. On the other hand, 47% of students were not sure whether or notthey had faced information on overload while using their smartphonesto interact with social networking sites. The high percentage of “not sure” responses might be because these students did notrealizeas yet the consequences of spending huge amountsof time on social networkingsites. As mentioned in the literature, receiving too much information all at once may cause information overload. Sincestudents are carrying theirsmartphoneswherever they go, the probability of facing information overload problems is likely.

**Time and Information Limitation:**Due to time constraints,the outcome of this research had some limitations that could constitute a future researchproject. Firstly, it was carried out in onlyone country (Oman) using a relatively small sample size. Hence, the researchers believe it would be a good idea to conduct the study on a largerscale i.e. including othercountries and explore the difference between them regarding this phenomenon. Secondly, the process of filtering the information received from social networking was not the main focus of this study.It would be very beneficial if another study focuseson this issue and findsa solutionfor it thatispracticaltoimplement.

**Too Much Addiction:**The survey also shows that the majority of students (71%) use social networksto communicate with their friends more than with anyone else. This result might be explained by the fact that students spend a long time on these sites searching for new friends so that they can enlarge their online networks. Conversely, they may feel more comfortable spendinga long time talking with their friends through social networking sites rather than talking with their professors or work colleagues.This is,of course, in addition to the time spent looking forcourse material and illustrations.

**Socialization:**While it is true that social media helps to build distant friendships, the same could negatively impact the relationships of their close ones. Students who use social media excessively may lose relationships with their beloved persons. They might be highly addicted to social media such that they forgot to spend time with their friends and family.

**Inappropriate Content:**Not all the content available on social media may be appropriate for students. Students, especially underage children are exposed to inappropriate content both intentionally or unintentionally. This includes pornography as well. All of a sudden it can be shown while playing a game or scrolling through a newsfeed.

Eventually, the students might get mentally disturbed. It is the responsibility of the parents to monitor how their child is using social media.

**Health Concerns:** Most social media users including students often face many health problems due to excessive use of social media. Students who are addicted to social media spend day and night sitting in front of a computer or holding a smartphone. Since it does not involve many physical movements, the result of this can be obesity.

Even some students sacrifice their sleep for using social media. This can bring many sleeping disorders that can lead to other dangerous consequences.

**CHAPTER 3. OBJECTIVES**

All the steps required in the software-analysis process related to this project (product function, user characteristics, functional and non-functional requirements, constraints, assumptions, and dependencies for the online shopping cart application) are described in the following sections.

**3.1. REQUIREMENTS ANALYSIS**

The requirements analysis and gathering processes are critical for the success of any software engineering project. Requirements analysis in software engineering is a process that determines the tasks that are required to determine the needs and conditions to design a new product or to make modifications to any existing product/application. This process considers all the stakeholders’ conflicting requirements, and analyses the documentation and validation of the system. The requirements should be actionable, measurable, testable, and related to the defined needs of the system design. From the software-engineering perspective.

**3.1.1. PRODUCT PERSPECTIVE**

The social media website & web application is a web-based system. It can be accessed using Internet Explorer 9.0 and above, Mozilla Firefox 25.0 and above, Microsoft Bing 68.3.3 and above, aspects google Chrome 70.0 and above.

**3.1.2. USER-ADMIN INTERFACE**

The two interface types found in the social media website & web application are as follows:

1. **User Interface**: User Interface (UI) is one of the most common front-end app view and direct human-computer interactions in which users can manipulate and control software as well as hardware. There are some important qualities is the user interface is Simplicity (: design should be simple), Consistency, Intuitiveness (: where users are easy to learn and pick it up quickly), prevention, forgiveness, and graphical user interface (: provides users to capability to intuitively operate computers and others electronic devices through the direct manipulation of graphical icons such as buttons, scroll bars, windows tabs, menus, cursors, and the mouse pointing device.)

In this project users can view the home page of the social media website & web application, users are likely to share a range of information publicly or privately (the information must be kept as secure as possible to prevent malware attacks or identity theft), ability to create a personal or professional network (the network may consist of friends, family, colleagues, or people with similar interest. It’s up to the user to choose), for content sharing features its’ facilitates communication between people and lets users feel more connected even they are far away from each other, delete the items in the shopping cart, save the cart for later viewing, check out or continue shopping after adding the item to the cart, and check out the items by completing the required information in the order form.

2. **Admin Interface**: The administrator can view the users’ information that was entered during checkout in the database, can update the information, price, and shipping costs of the items, and add or remove items from the main display.

**3.1.1.1. Hardware Interface**

The online shopping cart application shall provide minimum hardware requirements. The following hardware configurations are required for a PC using the online shopping cart application:

Pentium processor

5 GB of free hard-drive space

3GB of RAM

**3.1.1.2. Software Interface**

This section lists the requirements that are needed to run the system efficiently. The operating system needed for the system to run effectively, the interface to run the application, the driver for running Java web applications, the integrated development environment to develop the application, and the third-party tool used for editing purposes are as follows:

1. Operating System: Windows (Vista/Windows 7) or MAC OS

2. Web Brower: Internet Explorer (9.0 and above), Mozilla Firefox (25.0 and above), Microsoft Bing 68.3.3 and above, and Google Chrome 70.0 and above.

3. Drivers: Java Runtime Environment

4. Integrated Development Environment: Eclipse Juno or Apache Tomcat

5. Third-Party Tool: Microsoft Word

**4. Functional Requirements:**

This section contains the requirements for the online social media web application. The functional requirements, as collected from the users, have been categorized as follows to support the types of user interactions that the system shall have.

**1)Educational Purpose:** The main purpose of this social media web application is to teach computer science students the basics of the HTML, CSS, JavaScript, MongoDB, and JavaScript framework/libraries like React, Node, Aurelia, Vue, Typescript programming languages along with the concepts of web-application designing.

**2) For users:** The users shall be able to create their accounts and upload their content. The users shall be able to view the different content, select categories, and browse through the contents. The users shall be able to view other users’ content and can communicate with them by messaging.

**3) Login/ User Authentication**: The users shall log in or register using the user authentication form.The users shall not log in or register if the information is incomplete or invalid.

**4) Performance Requirements:**

1.The users shall be able to get the homepage after login in fewer than 5 seconds.

2.The users shall be able to upload their content in less time.

3.The users shall be able to switch from one page to another very quickly and smoothly.

**Non-Functional Requirements:**

Non-Functional Requirements are the constraints or the requirements imposed on the system. Non-Functional requirements deal with the issues like scalability, maintainability, performance, security, reliability, and many more.

**1. Security Requirements:** Web applications are susceptible to attacks that may result in exposure or modification of sensitive data, and impact the availability of services to authorized users. Web-application must be reviewed and tested for security vulnerabilities. Validate the data on the server-side and data received via HTTP requests not validating data can result in attacks such as Cross-Site-Scripting, SQL injection, HTTP response splitting, and many more.

2. **SCALABILITY:** Scalability is all about handling growth. A successful web application needs to seamlessly and efficiently accommodate growth and be designed with scalability in mind. A scalable web application will be able to handle an increase in users and load without disrupting the end-users.

**SOFTWARE INTERFACE:** This section lists the requirements that are needed to run the system efficiently.

**For Users**

* Web Brower: Any web Brower like Internet Explorer, Mozilla Firefox, Google Chrome, Microsoft Bing, and others.
* Account: An authorized mobile number and Gmail account.

**For Developers**

* Any integrated development environment (Microsoft Visual Studio preferred)
* React.JS, mongoose, and other libraries.

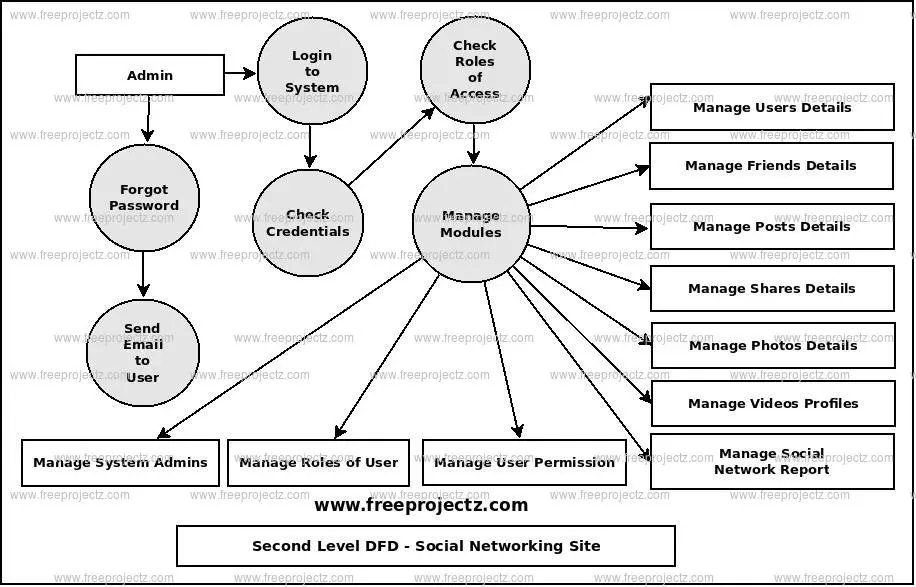
**Specific Requirements**

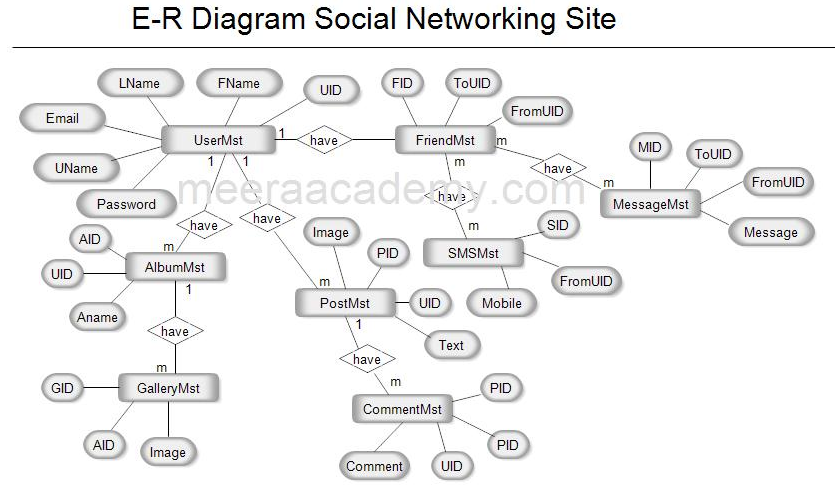
This section contains details about all the software that is required for designers to create a system to satisfy the users’ requirements and for testers to test the given requirements. This section contains the interface description of each GUI for the different system users. These sections also give descriptions of all the system inputs, all the functions performed by the system, and all the system output (responses).

**Design Constraint**

This section lists the design requirements for the online shopping cart application. The user interface (UI) must have specific fonts and font sizes. The system shall match the fonts and font sizes used for all the pages of the application.

Erd,dfd,used case diagram





**Sample Code:**

Login or Sign up page

**Bibliography:**

[1] G. Merchant, “Unravelling the social network: theory and research,” Learning, Media and Technology, vol. 37, no. 1, 2012, pp. 4-19.

[2] M. L. Rethlefsen, “Social Networking,” Medical Reference Services Quarterly, vol. 26, no. S1, 2007, pp. 117-141.

[3] G. V. Hoye, E. A. J. van Hooft, and F. Lievens, “Networking as a job search behaviour: a social network perspective,” Journal of Occupational and Organizational Psychology, vol. 82, 2009, pp. 661–682.

[4] E. Nini, “Private open source social networking media for education,” Proceedings of the Fifth International Conference on e-Learning, 2015, pp. 220-224.

[5] A. J. Y. Zaidieh, “The use of social networking in education: challenges and opportunities,” World of Computer Science and Information Technology Journal (WCSIT), vol. 2, no. 1, 2012, pp. 18-21.

[6] “Social networking service,” Wikipedia, the free encyclopedia https://en.wikipedia.org/wiki/Social\_networking\_serv ice

[7] J. E. Chung, “Benefits of social networking in online social support groups,” Doctoral Dissertation, University of Southern California, August 2010.

[8] A. M. Attia et al., “Commentary: the impact of social networking tools on political change in Egypt’s ‘Revolution 2.0’,” Electronic Commerce Research and Applications, vol. 10, 2011, pp. 369–374.

[9] S. Weeden, B. Cooke, and M. McVey, “Underage children and social networking,” Journal of Research on Technology in Education, vol. 45, no. 3, 2013, pp. 249- 262.

[10] P. Mahajan, “Use of social networking in a linguistically and culturally rich India,” The International Information & Library Review, vol. 41, 2009, pp. 129- 136.

[11] M. Pticek, V. Podobnik, and G. Jezic, “Beyond the Internet of things: the social networking of machines,” International Journal of Distributed Sensor Networks, 2016.

[12] Barkhuus, L., & Tashiro, J. (2010). Student socialization in the age of Facebook. Proceedings of the 28th International Conference on Human Factors in Computing Systems, 133-142.

[13] Cochrane, T., & Bateman, R. (2010). Smartphones give you wings: Pedagogical affordances of mobile Web 2.0. Australasian Journal of Educational Technology, 26(1), 1-14.

[14]Dwyer, C., Hiltz, S. R., & Passerini, K. (2007). Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace. Proceedings of AMCIS, 1-12.

[15] Dyer, K. A., & Columbia, C. (2010). Challenges of maintaining academic integrity in an age of collaboration, sharing and social networking. Presentation to the Technology, Conferences, and Community Conference, Honolulu, HI. Retrieved November, 3, 2010.

[16] Hingorani, K. K., & Woodard, D. (2012). Exploring How smartphones supports students' lives.

[17] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. Business horizons, 53(1), 59-68.

[18] Liccardi, I., Ounnas, A., Pau, R., Massey, E., Kinnunen, P., Lewthwaite, S., Midy, M.-A., & Sarkar, C. (2007). The role of social networks in students' learning experiences. ACM SIGCSE Bulletin, 39, 224-237.

[19] Stollak, M. J., Vandenberg, A., Burklund, A., & Weiss, S. (2011). Getting social: The impact of social networking usage on grades among college students. Proceedings from ASBBS Annual Conference, 859- 865

[20] Wang, Q., Chen, W., & Liang, Y. (2011). The Effects of social media on college students.

[21] Acquisti, A., & Gross, R. (2006). Imagined communities: Awareness, information sharing, and privacy on the Facebook. In P. Golle & G. Danezis (Eds.), Proceedings of 6th Workshop on Privacy Enhancing Technologies (pp. 36-58). Cambridge, UK: Robinson College.

[22] Adamic, L. A., Büyükkökten, O., & Adar, E. (2003). A social network caught in the Web.

*First Monday*, 8 (6). Retrieved July 30, 2007 from <http://www.firstmonday.org/issues/issue8_6/adamic/index.html>

[23] Backstrom, L., Huttenlocher, D., Kleinberg, J., & Lan, X. (2006). Group formation in large social networks: Membership, growth, and evolution. Proceedings of 12th International Conference on Knowledge Discovery in Data Mining (pp. 44-54). New York: ACM Press.

[24] Bahney, A. (2006, March 9). Don't talk to invisible strangers.

New York Times. Retrieved July 21, 2007 from <http://www.nytimes.com/2006/03/09/fashion/thursdaystyles/09parents.html>

[25] Barnes, S. (2006). A privacy paradox: Social networking in the United States. First Monday, 11 (9). Retrieved September 8, 2007 from <http://www.firstmonday.org/issues/issue11_9/barnes/index.html>

[26] BBC. (2005, July 19). News Corp in $580m Internet buy. Retrieved July 21, 2007 from http://news.bbc.co.uk/2/hi/business/4695495.stm

[27] Benzie, R. (2007, May 3). Facebook banned for Ontario staffers. The Star. Retrieved July 21, 2007 from <http://www.thestar.com/News/article/210014>

[28] boyd, d. (2004). Friendster and publicly articulated social networks. Proceedings of ACM Conference on Human Factors in Computing Systems (pp. 1279-1282). New York: ACM Press.

[29] boyd, d. (2006a). Friends, Friendsters, and MySpace Top 8: Writing community into being on social network sites. First Monday, 11 (12). Retrieved July 21, 2007 from http://www.firstmonday.org/issues/issue11\_12/boyd/

[30] boyd, d. (2006b, March 21). Friendster lost steam. Is MySpace just a fad? Apophenia Blog. Retrieved July 21, 2007 from <http://www.danah.org/papers/FriendsterMySpaceEssay.html>

[31] boyd, d. (in press-a). Facebook's privacy trainwreck: Exposure, invasion, and social convergence. Convergence, 14 (1).

[32] Types of Social Network Sites : https://www.aimprosoft.com/blog/how-to-build-a-social-media-website/

