

A Project Report on

CYBER CRIME PREVENTION

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of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CERTIFICATE

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12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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PSO1: An ability to analyse the common business functions to design and develop appropriate Information Technology solutions for social upliftment.

PSO2: Shall have expertise on the evolving technologies like Mobile Apps, CRM, ERP, Big Data, etc.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates will have successful careers in computer related engineering fields or will be able to successfully pursue advanced higher education degrees.

PEO2: Graduates will try and provide solutions to challenging problems in their profession by applying computer engineering principles.

PEO3: Graduates will engage in life-long learning and professional development by rapidly adapting changing work environment.

PEO4: Graduates will communicate effectively, work collaboratively and exhibit high levels of professionalism and ethical responsibility.

PROJECT OUTCOMES

P1: It makes us to identify cyber bullier.

P2: It allows users to report bully words they encounter.

P3:Users can send friend requests and chat with their friends.

P4:Users will be blocked if they enter bully words more than a threshold value.

L – LOW

M – MEDIUM

H – HIGH

PROJECT OUTCOMES MAPPING PROGRAM OUTCOMES

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
P1	M			L	M	L		L	M	M	M	L
P2	L				M			L	M	M	M	
P3	L				M			L	M	M	M	
P4	M	M		L	M	L		L	M	M	M	

PROJECT OUTCOMES MAPPING PROGRAM SPECIFIC OUTCOMES

PSO	PSO1	PSO2
P1	M	L
P2		
P3		
P4	M	L

PROJECT OUTCOMES MAPPING PROGRAM EDUCATIONAL OBJECTIVES

PEO	PEO1	PEO2	PEO3	PEO4
P1	L	M	M	M
P2	L			L
P3				L
P4	M	M	M	M

DECLARATION

We hereby declare that the project report entitled “**CYBER CRIME PREVENTION**” is done in the partial fulfillment for the award of the Degree in Bachelor of Technology in Computer Science and Engineering affiliated to Jawaharlal Nehru Technological University, Hyderabad. This project has not been submitted anywhere else.

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ABSTRACT

With the advancement of technology, craze of social networking platforms is profile rating. Online users now share their information with each other easily using computers, mobile phones etc. However, this has lead to the growth of cyber criminal acts for example, cyberbullying which has become a worldwide epidemic. Cyberbullying is the use of electronic communication to bully a person by sending harmful messages using social media, instant messaging or through digital messages. It has emerged out as a platform for insulting, humiliating a person which can affect the person either physically or emotionally and sometimes leading to suicidal attempts in the worst case. The main issue in preventing cyberbullying is detecting its occurrence so that an appropriate action can be taken at initial stages. To overcome this problem, many methods and techniques had been worked upon till now to control this problem. This paper is a survey covering cyberbullying and cyberbullying detection techniques. Next, we offer few suggestions for continued research in this area.

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CHAPTER -1

1. INTRODUCTION

1.1 Purpose of Project

Cyberbullying is a type of bullying that takes place using electronic technology including devices and equipments such as cell phones, computers through social media, text messages, chats etc .Examples of cyberbullying include mean text messages, rumors that can be very embarrassing to the concerned person. It can happen at any time and happens online and the text messages and images can be posted anonymously which can be distributed quickly to a very large audience. The modern day technology is a boon and cannot be blamed for cyberbullying. Social media sites are used for positive activities, like connecting kids with friends and family, helping students with school, and for entertainment. But these tools can also be used to hurt other people. Whether done online or offline the effects of bullying are similar. Cyberbullying is also defined as “willful and repeated harm inflicted through the medium of electronic text ”.It mainly targets children and adolescents as they are most active on social networks. With Web 2.0 providing easy and ubiquitous online access, cyber security is becoming an important concern. Internet has changed majority aspects of human lifetime: education, entertainment, politics, relationships and so on. It affects someone’s mood: they feel connected, happy, loved, lonely, depressed, scared and so forth. Maybe not willingly, but undoubtedly our lives have become interwoven with Internet. Social networking provides the humanity a huge and convenient platform for exchanging their ideas, perceptions all around the world.

There is a continuous growth of the size of social networks. Figure I depict the count of active users (in millions) involved in social networking websites . A thousand millions of users throughout the globe are using one or more social networking sites, with the count increasing rapidly at fast pace. This count includes every age group whether young or adult and both males and females. Out of this huge count, nearly millions of the individuals are

Revised Manuscript Received on June 05, 2019 Amanpreet Singh, Department of Computer Science & Engineering, Thapar Institute of Engineering and Technology, Patiala, India, Maninder Kaur, Department of Computer Science & Engineering, Thapar

Institute of Engineering and Technology, Patiala, India. habituated to these social networking sites. At the present time, the friendships and relationship networks are shaped through a wide array of digital devices. The majority of daily greetings, friendly get-togethers and family chitchats take place from behind a screen. Most of the time people reach out to others for help, love and friendship, but on the other side, hostility and hatred have also always been part of human culture and they have detrimental impact on societal history. Besides convenience and extreme openness, social networking platform can be effortlessly utilized for spreading uncivilized and unsocial activities.

The offensive wrong doings and patterns of behavior driven by the darker sides of human nature can be observed in these virtual settings. The social media prompt the youth into a globe of disastrous threats such as Cybercrime. Cybercrime is viewed as one of the most hazardous fears for the expansion of any vulnerable situation; it has a severe influence on every facet of the development of a state. Administration bodies, non-profit governments, remote industries and residents are all probable targets of the cyber-criminal crowd. The "cybercrime industry" operates specifically as authentic administrations working on an international level, with safety experts approximating the common measure of misfortunes to be processed in the demand of billions of bucks each year. The term „Cybercrime“ is stated as any illegitimate action that uses computer as the prime mechanism of committing crime.

The U.S. Department of Justice extended this definition: “For any illegal activity, use a computer as storage of evidence”. Cyber-crime is classified in two categories: technology based and content-based crime. Any particular terrorist group associated to sexual harassment, fear, child pornography, national security etc. accomplishes the content-based crime. The technology-based cybercrime includes hacking, incidents of espionage, injecting malicious code .

1.2 Problems with Existing System

In current trend many social networking sites created and providing services of communications, multi-media services, e-commerce etc immensely. For example twitter social media provide major services of micro-blogging massively, it has more than 700

million users and 400 million micro-blogs produces per day. According to research survey many more than 30% of dummy or duplicate or fake accounts are present in all social media services like twitter, facebook, sina etc . But in the current social sites not focus on services like tracking the user behavior of anonymous behavior. In current system, social network sites need to focus the user microblogs and need to capture the user behavior whether his/she anonymous user or not.

Few surveys' providing concepts to tracking the attackers like using profile matching techniques and network based techniques etc. But in real-time to apply those concepts in social network is less practical. Crawling the user information from the user micro blogs is also less practical. Anonymous Users can easily manipulate the public profile information.

Disadvantages

- Based existing surveys attacker easily morph the data.
- Very less practical, we can't find the attacker using small tiny blogs
- Based on the network based models we should effort heavy data for detecting

1.3 Proposed System

In current trend many social networking sites created and providing services of communications, multi-media services, e-commerce etc immensely. Lot of anonymous users accounts are creating very rapidly. We need to focus for the tracking the anonymous users.

In our proposed system we are implementing the web based application which will find the anonymous users according to the user behavior. We calculate the user behavior according to the chat statements of the user which he/she do with others. By the taking the advantages Machine Learning algorithms we classify the anonymous users. Here we are using Naive Bayes algorithm to perform the classification of the users.

Advantages

- We are depending on the chat history instead of the profile attributes or any other media

attributes, so we can conclude with minimum amount of the computation.

- Due to machine learning classifications we can get accurate results

1.4 Scope of the Project

- The scope of our work will improve the security in online social network platform. We are pointing the loopholes of the current system and proposing new architecture to fulfill the loopholes.
- We survey on the Machine learning concept which will help to track the anonymous user in OSN.
- The scope of our work is to monitor the user behavior using chat history and provide some security features to the user.
- Many studies focus on this topic based on profile attributes, like names, profile picture, location, birth days etc. But we are focus on the user's generate data which user will generate more data compare with the profile attributes.

CHAPTER -2

2.SOFTWARE RERUIREMENT SPECIFICATIONS

2.1 What is SRS?

Software Requirement Specification (SRS) is the starting point of the software developing activity. As system grew more complex it became evident that the goal of the entire system cannot be easily comprehended. Hence the need for the requirement phase arose. The software project is initiated by the client needs. The SRS is the means of translating the ideas of the minds of clients (the input) into a formal document (the output of the requirement phase.)

The SRS phase consists of two basic activities:

Problem/Requirement Analysis:

The process is order and more nebulous of the two, deals with understand the problem, the goal and constraints.

Requirement Specification:

Here, the focus is on specifying what has been found giving analysis such as representation, specification languages and tools, and checking the specifications are addressed during this activity.

The Requirement phase terminates with the production of the validate SRS document. Producing the SRS document is the basic goal of this phase.

2.2 Role of SRS

The purpose of the Software Requirement Specification is to reduce the communication gap between the clients and the developers. Software Requirement Specification is the medium though which the client and user needs are accurately specified. It forms the basis of software development. A good SRS should satisfy all the parties involved in the system.

2.3 Requirements Specification Document

A Software Requirements Specification (SRS) is a document that describes the nature of a project, software or application. In simple words, SRS document is a manual of a project provided it is prepared before you kick-start a project/application. This

document is also known by the names SRS report, software document. A software document is primarily prepared for a project, software or any kind of application.

There are a set of guidelines to be followed while preparing the software requirement specification document. This includes the purpose, scope, functional and non functional requirements, software and hardware requirements of the project. In addition to this, it also contains the information about environmental conditions required, safety and security requirements, software quality attributes of the project etc.

The purpose of SRS (Software Requirement Specification) document is to describe the external behaviour of the application developed or software. It defines the operations, performance and interfaces and quality assurance requirement of the application or software. The complete software requirements for the system are captured by the SRS. This section introduces the requirement specification document for Cyber Crime Prevention which enlists functional as well as non-functional requirements.

2.4 Functional Requirements

For documenting the functional requirements, the set of functionalities supported by the system are to be specified. A function can be specified by identifying the state at which data is to be input to the system, its input data domain, the output domain, and the type of processing to be carried on the input data to obtain the output data. Functional requirements define specific behaviour or function of the application. Following are the functional requirements:

- FR1) User should Login into the web page
- FR2) A new user should Sign Up
- FR3) Admin can view registered users
- FR4) Application Detects the Malicious Behavior of a user
- FR5) Admin can add Bulling Words
- FR6) Admin can view Malicious users
- FR7) Application can block bully users
- FR8) Admin can view Blocked users
- FR9) User can send Friend Request
- FR10) User can respond to Friend Request
- FR11) User can view his Friends

FR2) User can be able to Share Data

FR13) User can be able to View Data

FR14) User can Chat with others

2.5 Non-Functional Requirements

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviours. Especially these are the constraints the system must work within. Following are the non-functional requirements:

NFR 1) Users must change the initially assigned login password immediately after the first successful login. Moreover, the initial should never be reused.

NFR 2) Employees never allowed to update their salary information. Such attempt should be reported to the security administrator.

NFR 3) Every unsuccessful attempt by a user to access an item of data shall be recorded on an audit trail.

NFR 4) A website should be capable enough to handle 20 million users with affecting its performance.

NFR 5) The software should be portable. So moving from one OS to other OS does not create any problem.

NFR 6) Privacy of information, the export of restricted technologies, intellectual property rights, etc. should be audited.

Performance:

The performance of the developed applications can be calculated by using following methods: Measuring enables you to identify how the performance of your application stands in relation to your defined performance goals and helps you to identify the bottlenecks that affect your application performance. It helps you identify whether your application is moving toward or away from your performance goals. Defining what you will measure, that is, your metrics, and defining the objectives for each metric is a critical part of your testing plan.

Performance objectives include the following:

Response time, Latency throughput or Resource utilization.

2.6 Software Requirements

Operating System	:	Windows Family
Technology	:	Java, J2EE and Python 3.7
Web Technologies	:	Html, JavaScript, CSS
Web Server	:	Apache Tomcat 8.0
Database	:	My SQL 5.5 or Higher
UML's	:	StarUml

2.7 Hardware Requirements

Hardware	:	Pentium
Speed	:	1.1 GHz
RAM	:	4GB
Hard Disk	:	20 GB

CHAPTER -3

3 LITERATURE SURVEY

3.1 Different Approaches

Using Psychological Perspective. Feinberg and Robey , worked on the psychological aspects of cyberbullying by preventing them using careful observation, monitoring, setting up school campaigns against cyberbullying as most of the affected individuals are teens, by hosting anti-bullying programs, counseling of individuals and by monitoring Internet traffic. Their paper mainly discusses the psychological aspects of preventing cyberbullying. Psychological perspective has given rise to the study of cyber profiling and so a criminological theory can be determined from it. According to The Delete Cyberbullying Project, cyberbullying is best detected by simply observing the child. If a child's behavior changes, for example the kid stops using his/her cell phone or computer or any other communication device, if he/she gets upset after taking a call or receiving a text, it indicates that the child is being cyberbullied.

Using Semantic Analysis

This technique overcomes the problem of Text Mining technique to detect cyberbullying. Two classes of data are used, one with the positive tone and other with the negative tone. These are then converted into vector form. The dataset used is of MySpace and used to train a supervised learning algorithm. The test data is classified into positive or negative based on the data that the supervised algorithm was trained with. The tool used is RapidMiner. The X-validation operator was used with a SVM (Support Vector Machine)

Using a Static dictionary of bad words. A computer software known as Bully Tracer was designed to detect cyberbullying in a chat room conversation. This software has a dictionary of bad words like swear words and it matches the post to these bad words using rule-based algorithms to detect offensive text. This approach detected bullying content 85% of the time and innocent content 52% of the time. But such methods are not efficient as new swear words are created by bullies. Improvements to the existing tools are to be made to improve text mining and the bad word set needs to be updated on a daily basis.

Using Text Mining Approaches. Text Analytics play an important role in detecting the

cyberbullying words. It involves applying data mining on text to extract useful text patterns by analyzing multiple word documents, social media data like comments and posts on social networks like Facebook, tweets on twitter, etc. The data that we gather have no specific structure and so called as unstructured data which are then refined using a multi-stage process. The relevant documents are first collected to identify patterns in multiple documents. The data is then pre-processed which involves breaking up of a stream of text into tokens called as tokenization. Subsequently, cleaning up of the text, determination of the relationship of the words with adjacent words to find their meaning. The next step deals with attribute generation where the text document is represented by words. Words and their occurrences are counted and a weight is assigned to each label using an in-built classifier. Then attribute removal is performed and data mining algorithms are applied to this data. A study performed the above method to tackle cyberbullying on MySpace dataset to identify the occurrence of abusive words. The text mining method is useful but it cannot detect bullying if it is done in non-curse words which when put together make up an offensive statement. For example, it will consider both “I hate you “and “I don’t hate you” as offensive statements.

Using a Graph Model to detect and identify victim and perpetrator. An approach proposed by Nahar, Li and Pang, worked on detection of the victim and the perpetrator. The approach is divided into 2 phases. The first phase detects harmful messages by employing semantic and weighted features in the feature selection process using L.D.A. (Latent Dirichlet Allocation) algorithm . It determines the word usage to identify the occurrence of bullying and weighted features provide a rough idea of severity of cyberbullying. In the second phase, the predators and victims are identified using HITS algorithm. The person sending the highest bullying content is considered as the bully and the person who receives at least one such message is considered as the victim and scores are assigned for ranking. The victim and the predator score is then calculated. This approach is based on the assumption that predator is a person who sends messages to multiple persons. A drawback of this technique is that a static bad-word set is used.

Using Semantic-Enhanced Marginalized Denoising Auto-Encoder. In cyberbullying detection, one critical issue is robust and discriminative numerical representation learning of text messages. In this problem, a new representation learning method is developed via semantic extension of the popular deep learning model stacked denoising encoder. The semantic

extension consists of semantic dropout noise and sparsity constraints, where the semantic dropout noise is designed based on domain knowledge and the word embedding technique. In addition, word embeddings have been used to automatically expand and refine a bullying word list that is initialized by domain knowledge. Experiments have been conducted over Twitter and MySpace which gave an accuracy of 70.53 % and 65.71 % respectively using different methods.

3.2 SYSTEM ANALYSIS

The process of testing a software in a well-planned and systematic way is known as software testing lifecycle (STLC). Different organizations have different phases in STLC however generic Software Test Life Cycle (STLC) for waterfall development model consists of the following phases :

1. Requirements Analysis
2. Test Planning
3. Test Analysis
4. Test Design
5. Test Construction and Verification
6. Test Execution and Bug Reporting
7. Final Testing and Implementation
8. Post Implementation

Requirements Analysis

In this phase testers analyse the customer requirements and work with developers during the design phase to see which requirements are testable and how they are going to test those requirements. It is very important to start testing activities from the requirements phase itself because the cost of fixing defect is very less if it is found in requirements phase rather than in future phases. In this phase all the planning about testing is done like what needs to be tested, how the testing will be done, test strategy to be followed, what will be the test environment, what test methodologies will be followed, hardware and software availability, resources, risks etc. A high level test plan document is created which includes all the planning inputs mentioned above and circulated to the stakeholders.

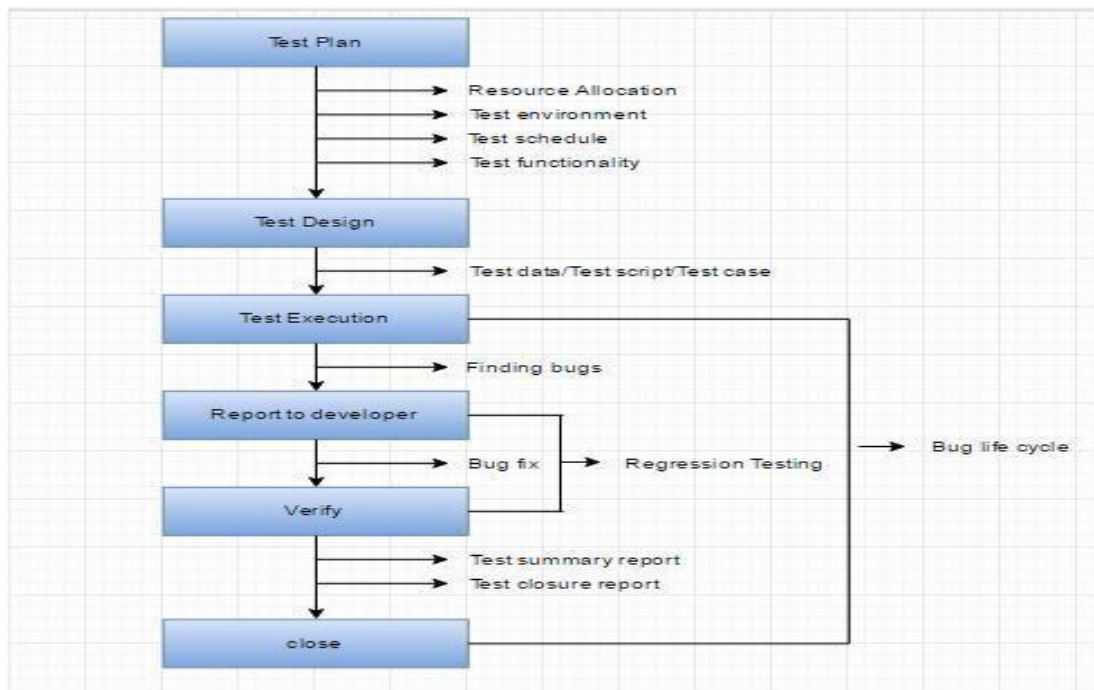


Fig 3.2.1 - IEEE 829 test plan template

Test Analysis

After test planning phase is over test analysis phase starts, in this phase we need to dig deeper into project and figure out what testing needs to be carried out in each SDLC phase. Automation activities are also decided in this phase, if automation needs to be done for software product, how will the automation be done, how much time will it take to automate and which features need to be automated. Non functional testing areas (Stress and performance testing) are also analysed and defined in this phase.

Test Design

In this phase various black-box and white-box test design techniques are used to design the test cases for testing, testers start writing test cases by following those design techniques, if automation testing needs to be done then automation scripts also needs to be written in this phase.

Test Construction and Verification

In this phase testers prepare more test cases by keeping in mind the positive and negative scenarios, end user scenarios etc. All the test cases and automation scripts need to

be completed in this phase and got reviewed by the stakeholders. The test plan document should also be finalized and verified by reviewers.

Test Execution and Bug Reporting

Once the unit testing is done by the developers and test team gets the test build, The test cases are executed and defects are reported in bug tracking tool, after the test execution is complete and all the defects are reported. Test execution reports are created and circulated to project stakeholders. After developers fix the bugs raised by testers they give another build with fixes to testers, testers do re-testing and regression testing to ensure that the defect has been fixed and not affected any other areas of software. Testing is an iterative process i.e. If defect is found and fixed, testing needs to be done after every defect fix. After tester assures that defects have been fixed and no more critical defects remain in software the build is given for final testing.

Final Testing and Implementation

In this phase the final testing is done for the software, non functional testing like stress, load and performance testing are performed in this phase. The software is also verified in the production kind of environment. Final test execution reports and documents are prepared in this phase.

Post Implementation

In this phase the test environment is cleaned up and restored to default state, the process review meetings are done and lessons learnt are documented. A document is prepared to cope up similar problems in future releases.

Planning	Create high level test plan	Test plan, Refined Specification
Analysis	Create detailed test plan, Functional	Revised Test Plan, Functional Validation Matrix, test cases
	Validation Matrix, test cases	
Design	Test cases are revised, select which test cases to automate	Revised test cases, test data sets, risk assessment sheet.
Construction	Scripting of test cases to automate	Test procedures/Scripts, Drivers, test results, Bug reports
Testing cycles	Complete testing cycles	Test results, Bug reports
Final testing	Execute remaining stress and performance tests, complete documentation	Test results and different metrics on test efforts
Post implementation	Evaluate testing processes	Plan for improvement of testing process

Table 3.2.2 – Activities and Outcomes of each phase in SDLC

3.3 Project Software

JAVA, Apache Server, MSQL, EDIT ++

In our web Application Development we are using one tier architecture as total applicant will be developed in single system with all the three layers of application development like presentation layer where we use our web technologies to make of GUI of the application like HTML, HTML-5, CSS, JS Etc. and in second layer we have to make our business logic or

called as implementation of application where we are using java, J2EE and also we use JDBC to connect from our Business layer to data base layer and final our data base layer where we develop the Data structure of the application

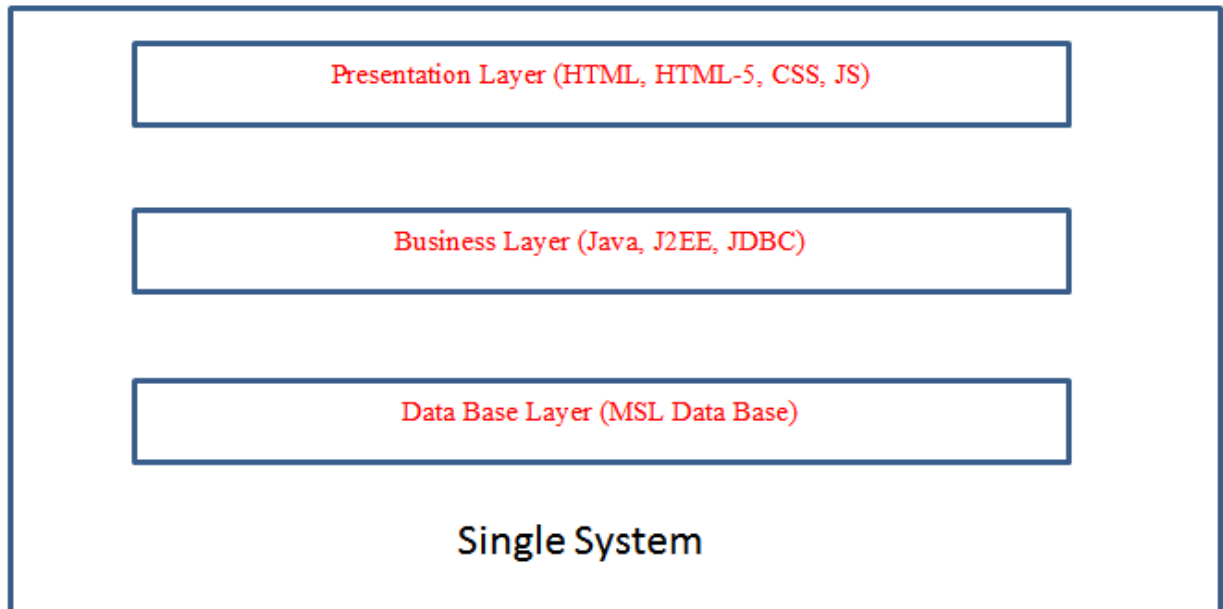


Fig:-3.3.1 Single tire Architecture Project Development

Installation and Setup in our system

The Software we download from the oracle website as it's an open source as per the software we have installed it in our system and for we have set the system path of java in our OS location. We have used the main logic of our algorithm by core java concepts only for web application. We have used all JSP concepts and to connect data base we have used JDBC with all this concept we have done the application in Single tire Architecture Project.

Data Storage in MYSQL

We have taken open source software MYSQL from the provide website and run in our system. We used for creating our project data base related tables as per project requirement's even for user friendly access of my sql we used Software called SQL Yog where we can do all the operation of mysql by click & use.

About the role of apache tomcat webserver

As our project is a web applicant we need webserver so for that we used again open sour software where our total project source code will be in webapps of the server form that location the application run into web browser where users can see the implementation of the total project.

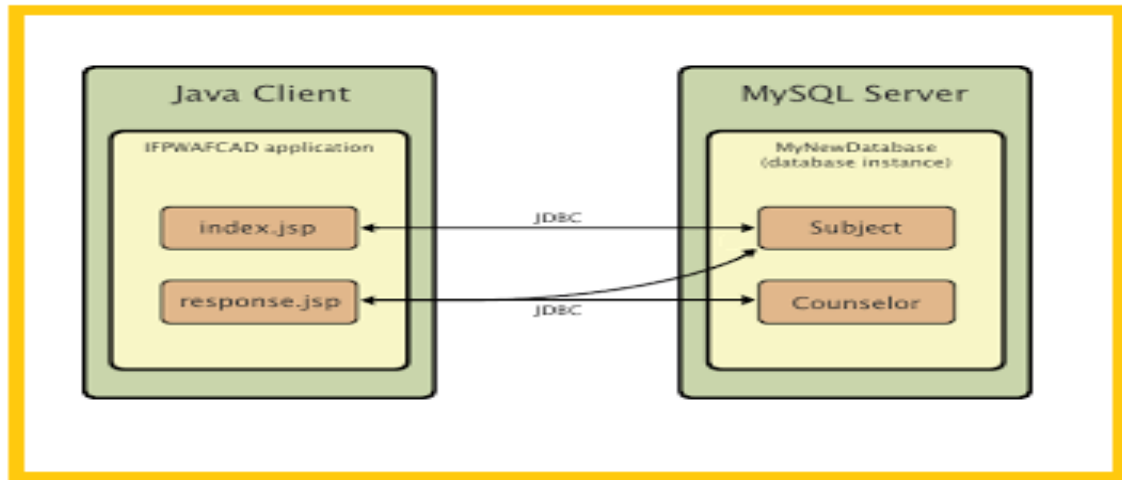


Fig:-3.3.2 Application Development Structure

SOFTWARE OVERVIEW:**History of Python**

Python was developed by Guido van Rossum in the late eighties and early nineties at the National Research Institute for Mathematics and Computer Science in the Netherlands. Python is derived from many other languages, including ABC, Modula-3, C, C++, Algol-68, SmallTalk, and Unix shell and other scripting languages.

Python is copyrighted. Like Perl, Python source code is now available under the GNU General Public License (GPL).

Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress.

Input as CSV File

Reading data from CSV(comma separated values) is a fundamental necessity in Data Science. Often, we get data from various sources which can get exported to CSV format so that they can be used by other systems. The Panadas library provides features using which we can read the CSV file in full as well as in parts for only a selected group of columns and rows.

The CSV file is a text file in which the values in the columns are separated by a comma. Let's consider the following data present in the file named input.csv. You can create this file using windows notepad by copying and pasting this data. Save the file as input.csv using the save As All files(*.*) option in notepad.

```
import pandas as pd
```

```
data= pd.read_csv('path/input.csv')  
print(data)
```

Operations using NumPy

NumPy is a Python package which stands for 'Numerical Python'. It is a library consisting of multidimensional array objects and a collection of routines for processing of array.

Using NumPy, a developer can perform the following operations –

- Mathematical and logical operations on arrays.
- Fourier transforms and routines for shape manipulation.
- Operations -related to linear algebra. NumPy has in-built functions for linear algebra and random number generation.

Key Features of Pandas

- Fast and efficient DataFrame object with default and customized indexing.
- Tools for loading data into in-memory data objects from different file formats.
- Data alignment and integrated handling of missing data.
- Reshaping and pivoting of date sets.
- Label-based slicing, indexing and subsetting of large data sets.
- Columns from a data structure can be deleted or inserted.
- Group by data for aggregation and transformations.
- High performance merging and joining of data.
- Time Series functionality.

CHAPTER -4

4. SYSTEM DESIGN

4.1 Introduction to UML

The Unified Modeling Language allows the software engineer to express an analysis model using the modeling notation that is governed by a set of syntactic, semantic and pragmatic rules. A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows:

1. User Model View

This view represents the system from the users' perspective. The analysis representation describes a usage scenario from the end-users' perspective.

2. Structural Model View

In this model, the data and functionality are arrived from inside the system. This model view models the static structures.

3. Behavioural Model View

It represents the dynamic of behavioural as parts of the system, depicting the interactions of collection between various structural elements described in the user model and structural model view.

4. Implementation Model View

In this view, the structural and behavioural as parts of the system are represented as they are to be built.

5. Environmental Model View

In this view, the structural and behavioural aspects of the environment in which the system is to be implemented are represented.

4.2 UML Diagrams

4.2.1 UseCase Diagram

To model a system, the most important aspect is to capture the dynamic behaviour. To clarify a bit in details, dynamic behaviour means the behaviour of the system when it is running/operating.

So only static behaviour is not sufficient to model a system rather dynamic behaviour is

more important than static behaviour. In UML there are five diagrams available to model dynamic nature and use case diagram is one of them. Now as we have to discuss that the use case diagram is dynamic in nature there should be some internal or external factors for making the interaction.

These internal and external agents are known as actors. So use case diagrams are consisting of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system. So to model the entire system numbers of use case diagrams are used.

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements. So when a system is analysed to gather its functionalities use cases are prepared and actors are identified. In brief, the purposes of use case diagrams can be as follows:

- a. Used to gather requirements of a system.
- b. Used to get an outside view of a system.
- c. Identify external and internal factors influencing the system.
- d. Show the interacting among the requirements are actors.

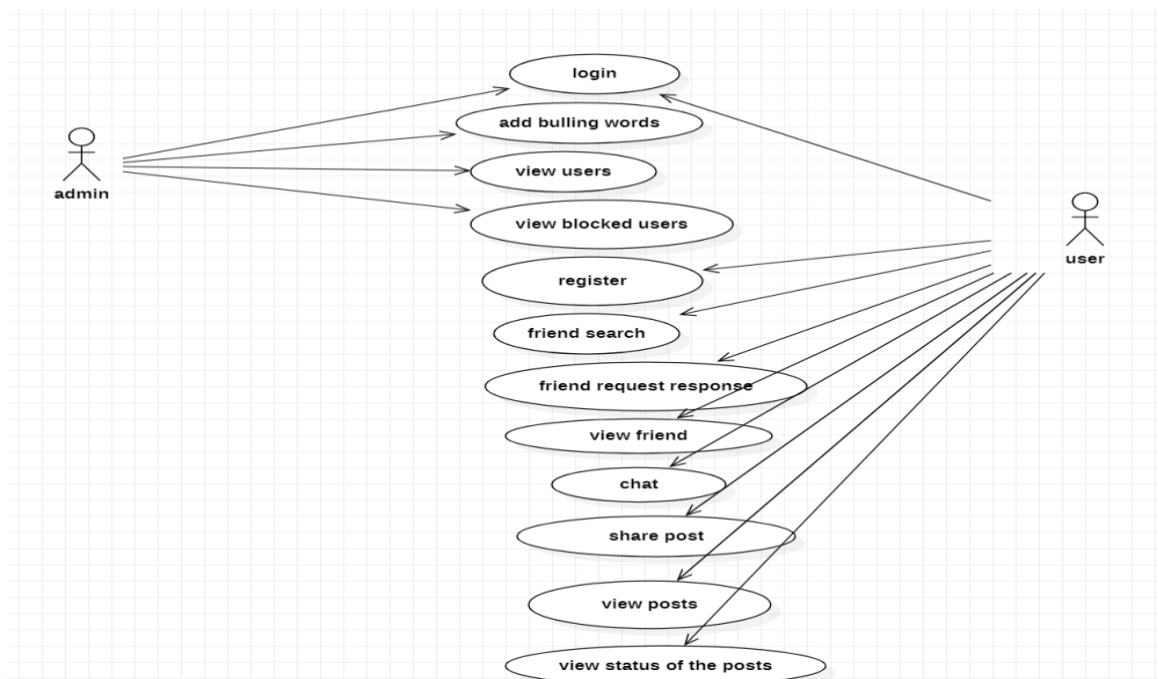


Fig 4.2.1 – Use Case Diagram

4.2.2 Sequence Diagram:

Sequence diagrams describe interactions among classes in terms of an exchange of messages over time. They're also called event diagrams. A sequence diagram is a good way to visualize and validate various runtime scenarios. These can help to predict how a system will behave and to discover responsibilities a class may need to have in the process of modelling a new system.

The aim of a sequence diagram is to define event sequences, which would have a desired outcome. The focus is more on the order in which messages occur than on the message per se. However, the majority of sequence diagrams will communicate what messages are sent and the order in which they tend to occur.

Basic Sequence Diagram Notations

Class Roles or Participats

Class roles describe the way an object will behave in context. Use the UML object symbol to illustrate class roles, but don't list object attributes.

Activation or Execution Occurrence

Activation boxes represent the time an object needs to complete a task. When an object is busy executing a process or waiting for a reply message, use a thin grey rectangle placed vertically on its lifeline.

Messages

Messages are arrows that represent communication between objects. Use half-arrowred lines to represent asynchronous messages.

Asynchronous messages are sent from an object that will not wait for a response from the receiver before continuing its tasks.

Lifelines

Lifelines are vertical dashed lines that indicate the object's presence over time.

Destroying Objects

Objects can be terminated early using an arrow labelled "<< destroy >>" that points to an X. This object is removed from memory. When that object's lifeline ends, you can place an X at the end of its lifeline to denote a destruction occurrence.

Loops

A repetition or loop within a sequence diagram is depicted as a rectangle. Place the

condition for exiting the loop at the bottom left corner in square brackets []. Guards

When modelling object interactions, there will be times when a condition must be met for a message to be sent to an object. Guards are conditions that need to be used throughout UML diagrams to control flow.

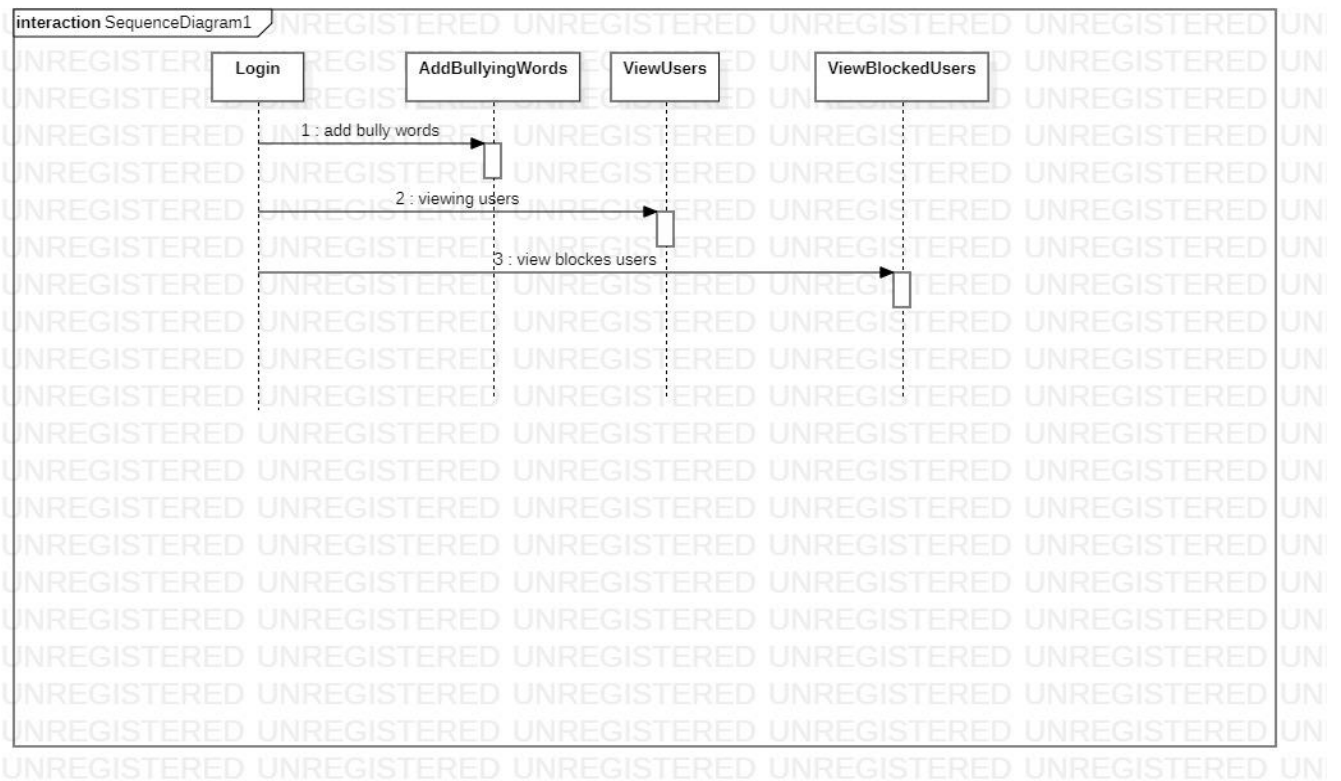


Fig 4.2.2 – Sequence Diagram of a Admin

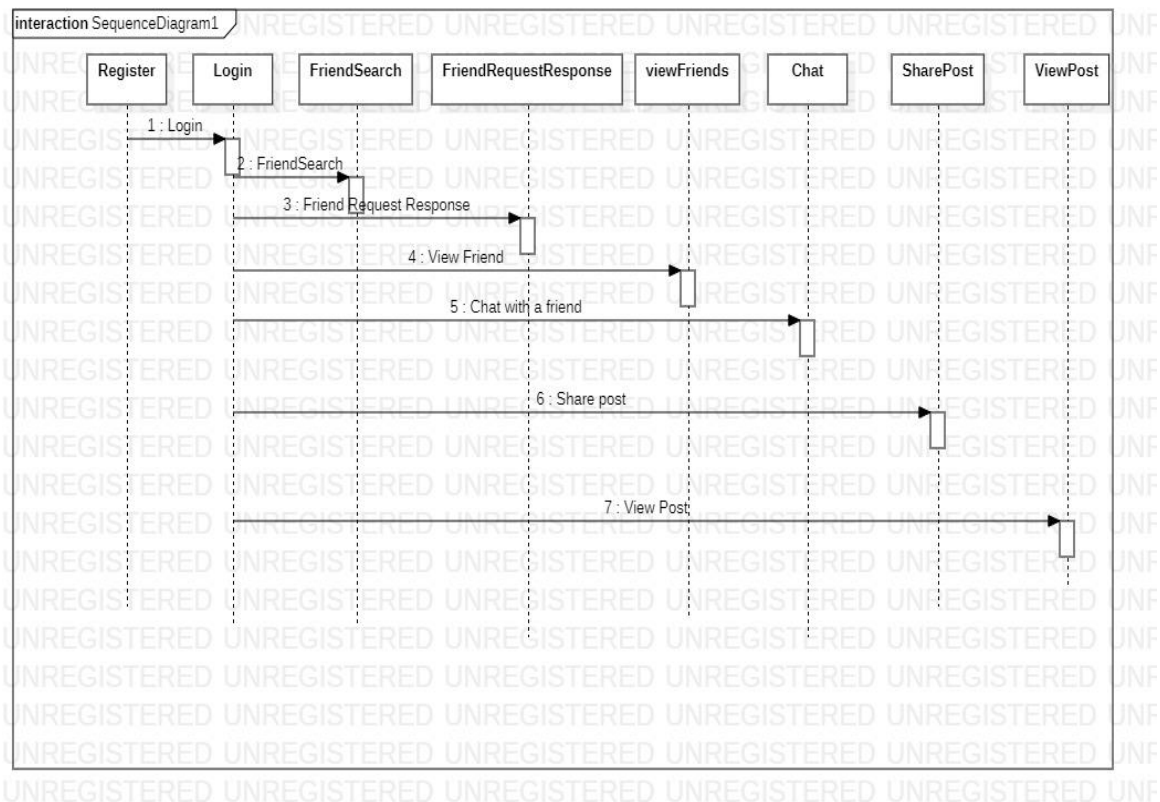


Fig 4.2.3 – Sequence Diagram of a User

4.2.3 Activity Diagram

Activity diagram is another important diagram in UML to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc

Purpose of Activity Diagrams:

The basic purposes of activity diagrams is similar to other four diagrams. It captures the dynamic behavior of the system. Other four diagrams are used to show the message flow from one object to another but activity diagram is used to show message flow from one activity to another. Activity is a particular operation of the system. Activity diagrams are not only used for visualizing the dynamic nature of a system, but they are also used to construct the

executable system by using forward and reverse engineering techniques. The only missing thing in the activity diagram is the message part.

It does not show any message flow from one activity to another. Activity diagram is sometimes considered as the flowchart. Although the diagrams look like a flowchart, they are not. It shows different flows such as parallel, branched, concurrent, and single.

The purpose of an activity diagram can be described as –

- Draw the activity flow of a system.
- Describe the sequence from one activity to another.
- Describe the parallel, branched and concurrent flow of the system.

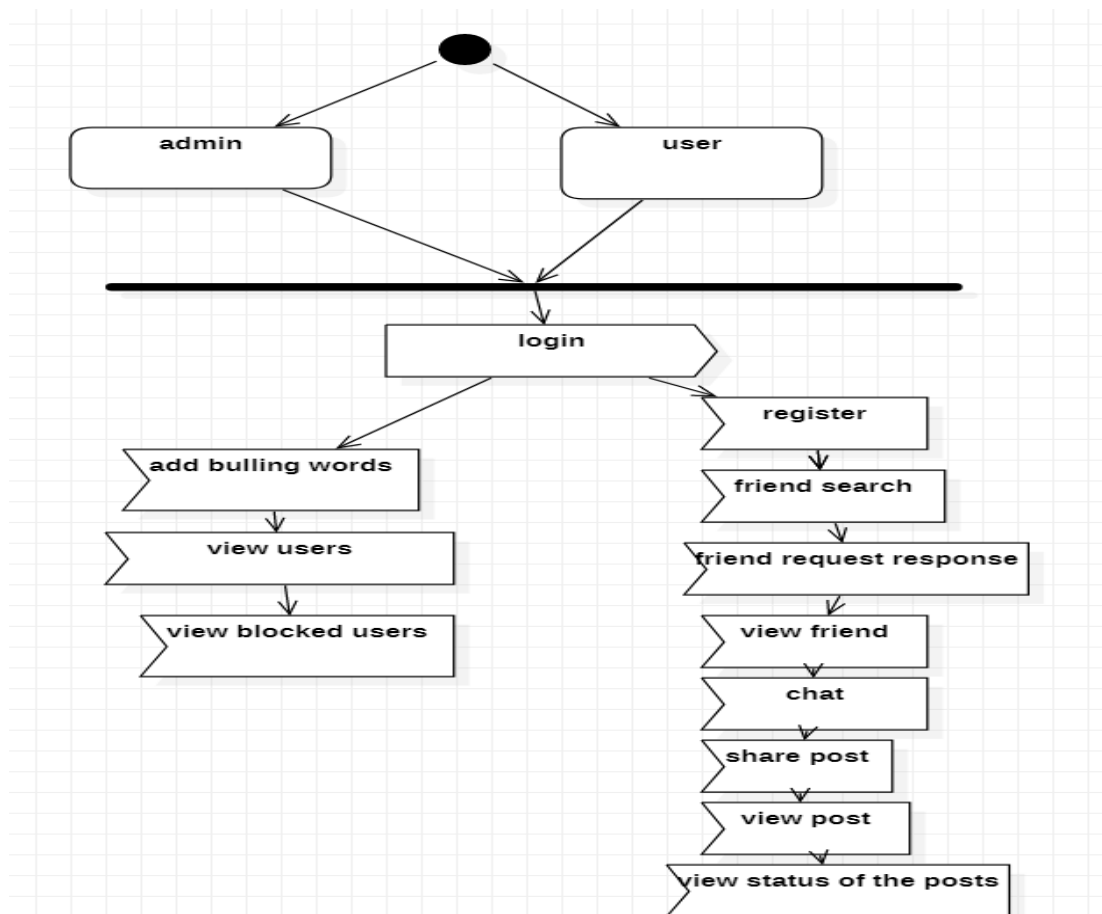


Fig 4.2.4 – Activity Diagram

CHAPTER -5

5. IMPLEMENTATION

5.1 ALGORITHM

NAIVE BAYES ALGORITHM

Naive Bayes classifier is based on Bayes theorem. It has strong independence assumption. It is also known as independent feature model. It assumes the presence or absence of a particular feature of a class is unrelated to the presence or absence of any other feature in the given class. Naive bayes classifier can be trained in supervised learning setting. It uses the method of maximum similarity. It has been worked in complex real world situation. It requires small amount of training data. It estimates parameters for classification. Only the variance of variable need to be determined for each class not the entire matrix. Naive bayes is mainly used when the inputs are high. It gives output in more sophisticated form. The probability of each input attribute is shown from the predictable state. Machine learning and data mining methods are based on naive bayes classification.

Bayes theorem:-

$$P(H|X) = \frac{P(X|H) P(H)}{P(X)}$$

- Where $P(H|X)$ is posterior probability of H conditioned on X
- $P(X|H)$ is posterior probability of X conditioned on H
- $P(H)$ is prior probability of H $P(X)$ is prior probability of X.

5.2 Code Snippets

DatabaseCon.java

```
package com.mysql;

import java.sql.*;

public class DatabaseCon
{
    static Connection co;
    public static Connection getConnection()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            co = DriverManager.getConnection("jdbc:mysql://localhost:3308/SocialM
onitor", "root", "root");
        }
        catch(Exception e)
        {
            System.out.println("Database Error"+e);System.out.println("Database E
rror"+e);
        }
        return co;
    }
    public static void main(String[] s)
    {
        System.out.println("Database "+getConnection());
    }
}
```

InsertChat.java

```
<%String head1="chat";%>
<%String head2="Chat with your friends ";%>

<%@ include file="uheader.jsp"%>

                <nav class="nav-sidebar">
                <ul class="nav tabs">

<%@ page import="java.sql.*" import="com.mysql.*" import="com.ct.*" %>

<%
try{
String email=(String)session.getAttribute("email");

Connection con = DatabaseCon.getConnection();
```

```

Statement st=con.createStatement();
Statement st2=con.createStatement();
String sql="select * from friends where user1='"+email+"' ";
//System.out.println(sql);
ResultSet rs=st.executeQuery(sql);
ResultSet rs2=null;
while(rs.next()){
String user=rs.getString(2);
//System.out.println("11="+user);
rs2=st2.executeQuery("select * from users where email='"+user+"' ");
while(rs2.next())
{
                %>

                <li class=""><a href="chat2.jsp?user2=<%=rs2.getString("email")%>" >

                " alt=" "
width="90" height="90" />

                <%=rs2.getString("name")%>

                <span><%=Details.getChatCount(rs2.getString("email"),email)%></span></li> </a>

<%
        }
    }
}
catch(Exception e){
//System.out.println("11="+e);
}
%>

        </ul>

        </nav>

<%@ include file="ufooter.jsp"%>

```

Naive.java

```

import mysql.connector
import math
import re
from CountWords import CountWords
class NB:

    def predict():
        my_dict = {}

    try:
        database = mysql.connector.connect(host="localhost", user="root",
passwd="root",port="3308", db='socialmonitor')
        cursor = database.cursor()
        cursor1 = database.cursor()
        cursor2 = database.cursor()
        cursor.execute("select * from temp ")
        records = cursor.fetchall()
        fr = 0
        for row in records:
            doc = row[0];
            # print("doc=" + doc)
            c1 = len(doc.split())

            p_c = 0.0
            res = 0.0

            cursor2.execute("select * from words ")
            rows1 = cursor2.fetchall()
            for r1 in rows1:
                p_c = 0
                res = 0
                docn = r1[2]
                #print(docn)
                c2 = len(docn.split())
                #print("docn=" + docn)
                #print("c2=", c2)
                p_c = c2 / (c1 + c2)
                #print('pc====',p_c)
                token = re.split(r'[;,\s]\s*', docn) # docn.split()
                # print("tk=", token)

                count = 0
                # print("cnt="+content)
                unique_list = []
                count=CountWords.countOccurences(doc,docn)
                #print("----->" + str(count))

```



```

        tk = int(count)
        res = float(tk / (c1 + c2));
        res = float(p_c * res)
        fr = fr + res
        #print(fr,"=====")

        cursor2.execute("delete from temp")
        database.commit()
        cursor2.execute("insert into temp values('" + str(fr) + "')")
        database.commit()

    except Exception as e:
        print(e)

if __name__ == '__main__':
    NB.predict()

```

CountWords.py

```

class CountWords:
    # Python program to count the number of occurrence
    # of a comp in the given string given string

    def countOccurences(str_, comp):
        #print(str_,comp,'<<<<')
        str_=str_.lower()
        comp=comp.lower()
        comp=comp.split()
        # split the string by spaces in a
        a = str_.split(" ")
        # search for pattern in a
        count = 0
        for w in comp:
            for i in range(0, len(a)):
                # if match found increase count
                if (w == a[i]):
                    count = count + 1
        #print(count)
        return count

if __name__ == '__main__':
    str = "A computer science   portaL portal geeks  "
    comp = "computer science"
    print(Countcomps.countOccurences(str, comp))

```

CHAPTER -6

6. TESTING

6.1 Introduction to Testing

Testing is the process of evaluating a system or its component(s) with the intent to find whether it satisfies the specified requirements or not. Testing is executing a system in order to identify any gaps, errors, or missing requirements in contrary to the actual requirements.

According to ANSI/IEEE 1059 standard, Testing can be defined as - A process of analyzing a software item to detect the differences between existing and required conditions (that is defects/errors/bugs) and to evaluate the features of the software item.

Who does Testing?

It depends on the process and the associated stakeholders of the project(s). In the IT industry, large companies have a team with responsibilities to evaluate the developed software in context of the given requirements. Moreover, developers also conduct testing which is called Unit Testing. In most cases, the following professionals are involved in testing a system within their respective capacities:

- Software Tester
- Software Developer
- Project Lead/Manager
- End User

Levels of testing include different methodologies that can be used while conducting software testing. The main levels of software testing are:

- Functional Testing
- Non-functional Testing

Functional Testing

This is a type of black-box testing that is based on the specifications of the software that is to be tested. The application is tested by providing input and then the results are examined that need to conform to the functionality it was intended for. Functional testing of a software is conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements.

Software Testing Life Cycle

The process of testing a software in a well planned and systematic way is known as software testing lifecycle (STLC).

Different organizations have different phases in STLC however generic Software Test Life Cycle (STLC) for waterfall development model consists of the following phases.

1. Requirements Analysis
2. Test Planning
3. Test Analysis
4. Test Design

- **Requirements Analysis**

In this phase testers analyze the customer requirements and work with developers during the design phase to see which requirements are testable and how they are going to test those requirements.

It is very important to start testing activities from the requirements phase itself because the cost of fixing defect is very less if it is found in requirements phase rather than in future phases.

- **Test Planning**

In this phase all the planning about testing is done like what needs to be tested, how the testing will be done, test strategy to be followed, what will be the test environment, what test methodologies will be followed, hardware and software availability, resources, risks etc. A high level test plan document is created which includes all the planning inputs mentioned above and circulated to the stakeholders.

- **Test Analysis**

After test planning phase is over test analysis phase starts, in this phase we need to dig deeper into project and figure out what testing needs to be carried out in each SDLC phase. Automation activities are also decided in this phase, if automation needs to be done for software product, how will the automation be done, how much time will it take to automate and which features need to be automated. Non

functional testing areas(Stress and performance testing) are also analyzed and defined in this phase.

- Test Design

In this phase various black-box and white-box test design techniques are used to design the test cases for testing, testers start writing test cases by following those design techniques, if automation testing needs to be done then automation scripts also needs to written in this phase.

6.2 Test Cases

- The word uttered must start with the same character as the end of the previous word.
- The words must not be repeated in the game.
- The length of the word must be greater than or equal to three.

Test Case:1

Test Case ID #1		Test Case Description - Validations in Registration Form		
S#	Prerequisites	S#	Test Data Requirement	
1	User should be Registered	1	Data should be valid	
Test Condition				
Entering data in registration form				
Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/Suspended
1	User gives First and Last Name	Pop showing email verification message	Enter valid email/password	Fail
2	Submitting the form without entering any	Pop showing email verification	Enter email /password	Fail

	details	message		
3	User enters invalid format of email id	Pop showing email verification message	Enter valid email id	Fail
4	User enters a phone number with < 10 digits	Pop showing email verification message	Enter valid phone number	Fail
5	Entering valid username and password	Pop showing email verification message	Pop showing email verification message	Pass

Table No: 6.2.1 Registration test case

Test Case:2

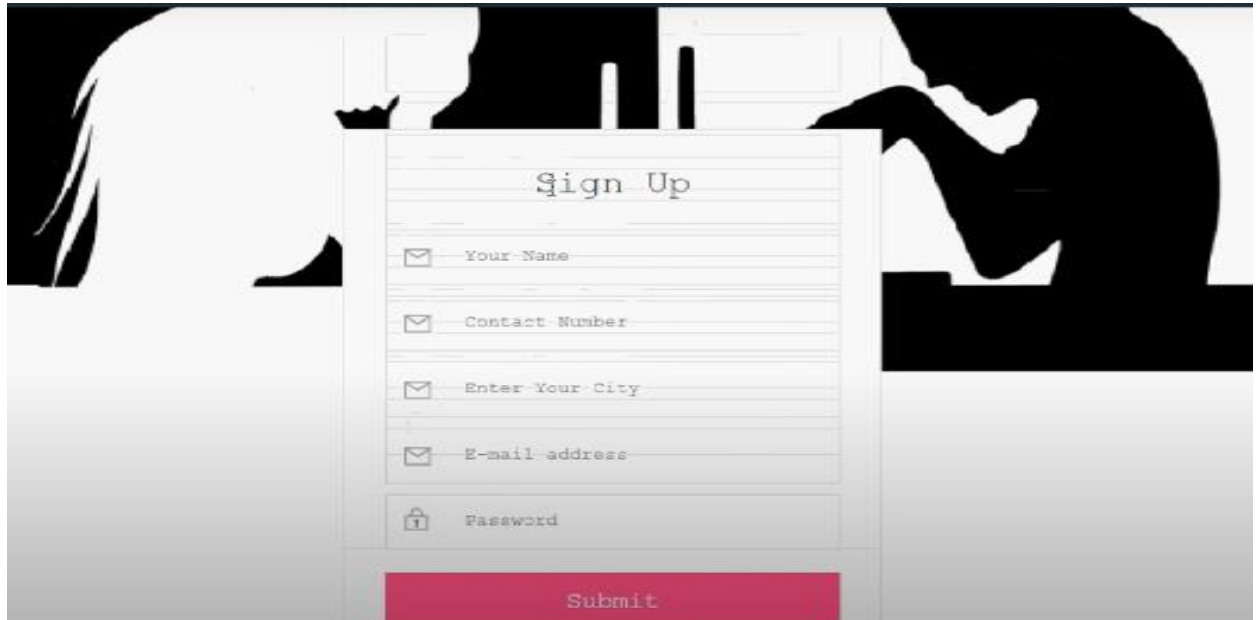
Test Case ID #2		Test Case Description - Validations in Login Form		
S#	Prerequisites	S#	Test Data Requirement	
1	User should have an email id	1	Data should be valid	
Test Condition				
Entering data in login form				
Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/Suspended
1	User gives an email or password of <6 characters	User logged in	Enter valid email/password	Fail
2	Submitting the form without	User logged in	Enter email /password	Fail

	entering any details			
3	User enters wrong Email and (or) password	User logged in	Enter correct email /password	Fail

TableNo: 6.2.2 Login test case

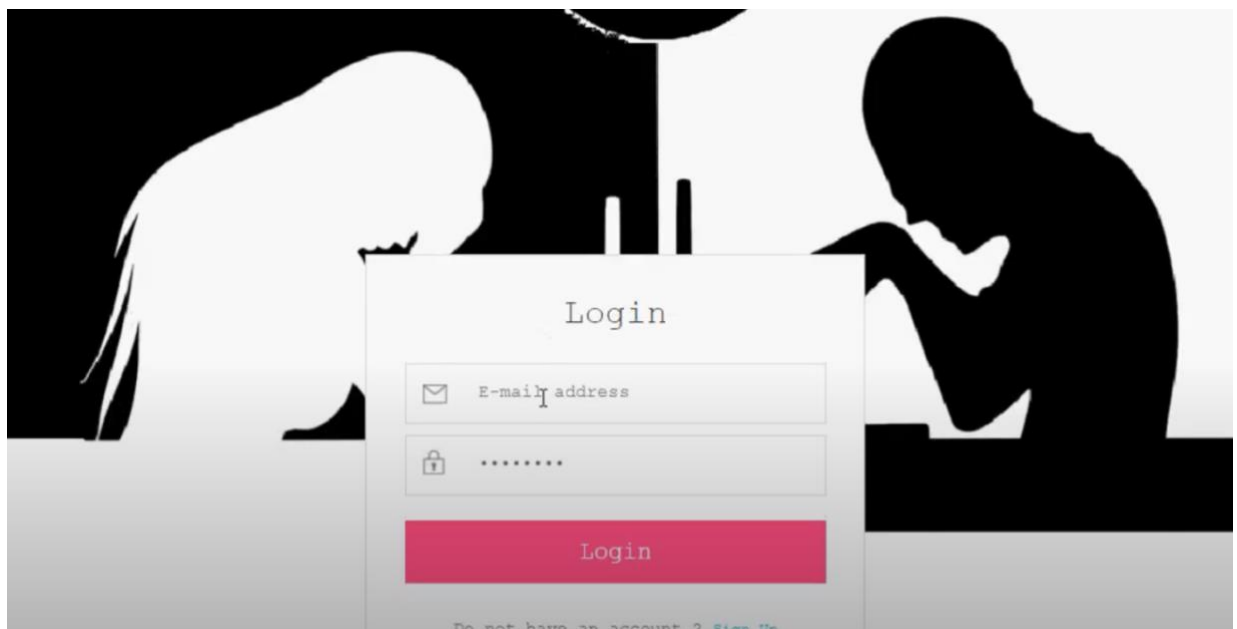
CHAPTER -7

7. RESULTS & SCREENSHOTS



The screenshot displays a 'Sign Up' form with a light gray background and a white border. The form is titled 'Sign Up' in a dark gray font. It contains five input fields, each with a small envelope icon to its left: 'Your Name', 'Contact Number', 'Enter Your City', 'E-mail address', and 'Password'. The 'Password' field has a small lock icon to its left. Below the input fields is a red 'Submit' button. The background of the image shows a person's silhouette working at a computer.

Fig 7.1 - Layout of sign up webpage



The screenshot displays a 'Login' form with a light gray background and a white border. The form is titled 'Login' in a dark gray font. It contains two input fields, each with a small envelope icon to its left: 'E-mail address' and a password field represented by seven asterisks. Below the input fields is a red 'Login' button. At the bottom of the form, there is a link that reads 'Do not have an account ? Sign Up'. The background of the image shows a person's silhouette working at a computer.

Fig 7.2 – Layout of login webpage

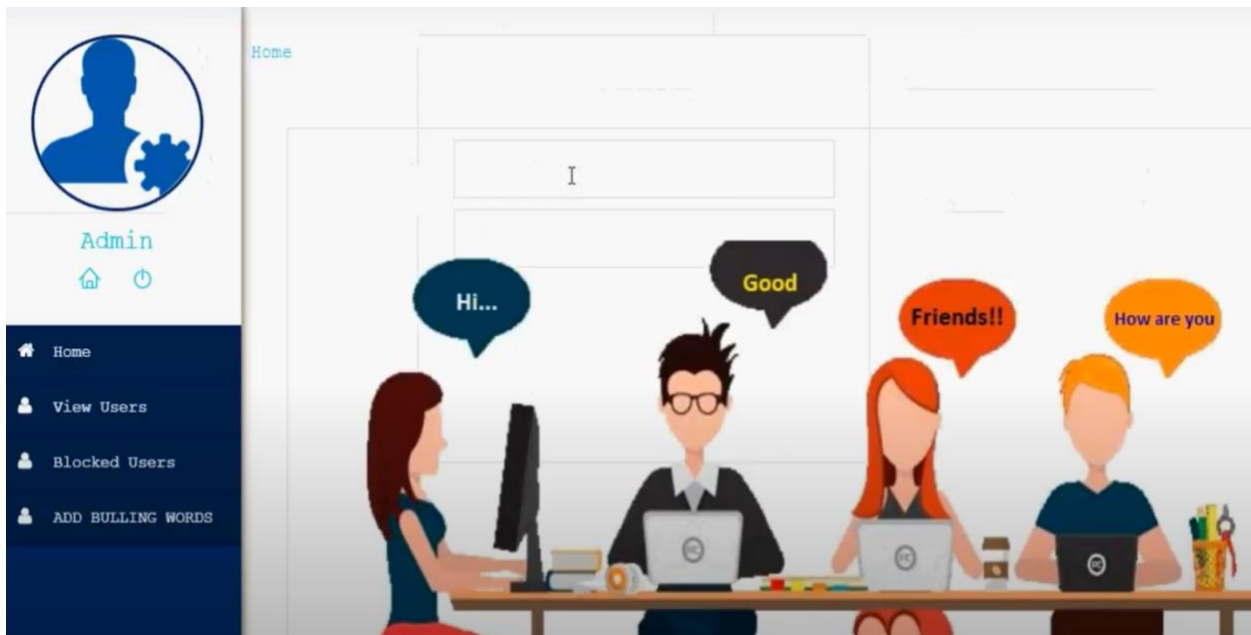


Fig 7.3 – Layout of admin home page

SNo	Category
1	cyber
2	personal

Sno	Category	Word
1	personal	fuck
2	cyber	harass
3	cyber	kill
4	personal	scoundrel
5	personal	stupid

Select Category:

Fig 7.4 – Webpage for adding bully words

Home

Admin

Home View Users Blocked Users ADD BULLING WORDS

View Users

Sno	Name	Email	Contact	City
1	Bhavani Empati	embhavani21@gmail.com	9876543210	Hyderabad
2	Sanjana Podduturi	sanjana@gmail.com	7981931904	hhh
3	sanju	sanju@gmail.com	7981931904	Armoor

Fig 7.5 – Webpage for viewing registered users

Home

Admin

Home View Users Blocked Users ADD BULLING WORDS

Blocked Users

Sno	Name	Email	Contact	City
1	sanju	sanju@gmail.com	7981931904	Armoor

Fig 7.6 - Webpage for viewing blocked users

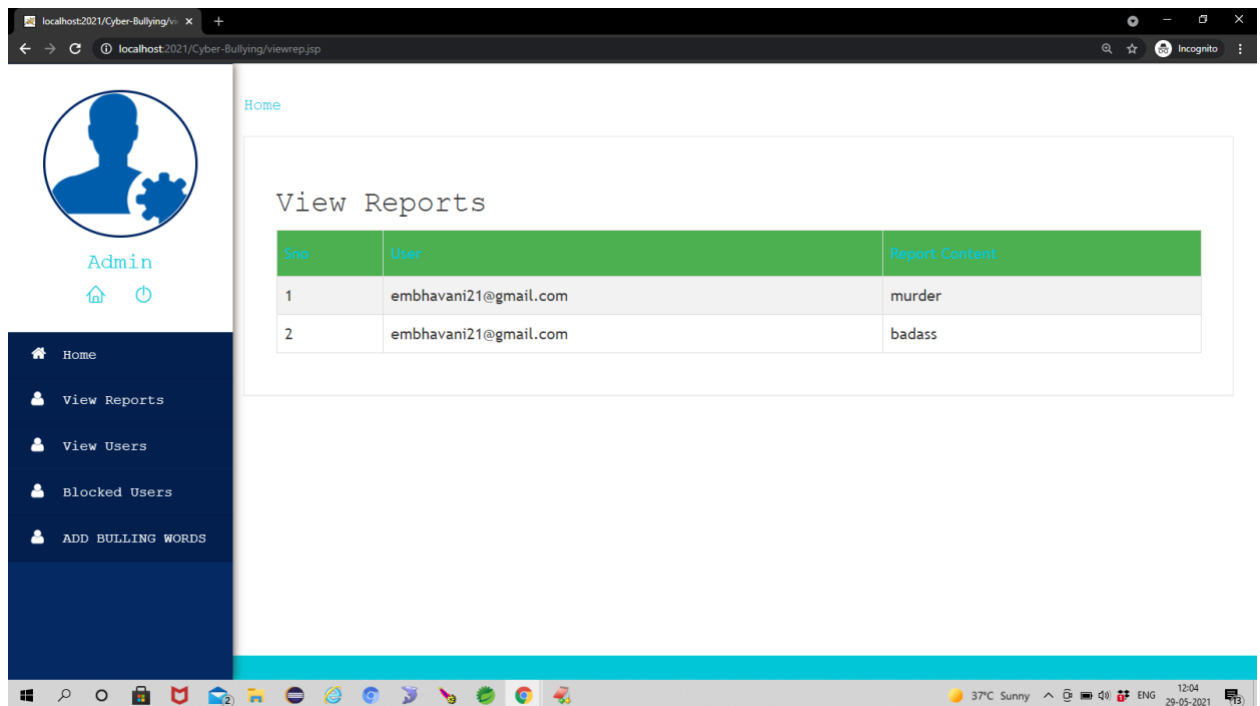


Fig 7.7 - Webpage for viewing bully words reported by users

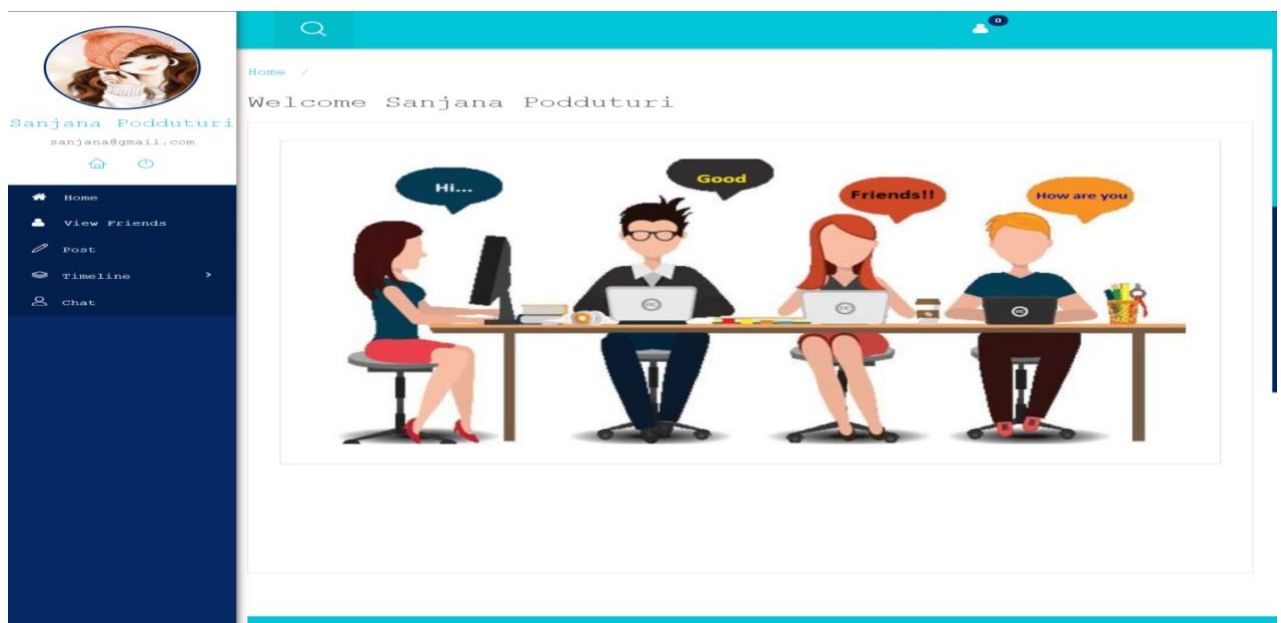


Fig 7.8- User profile

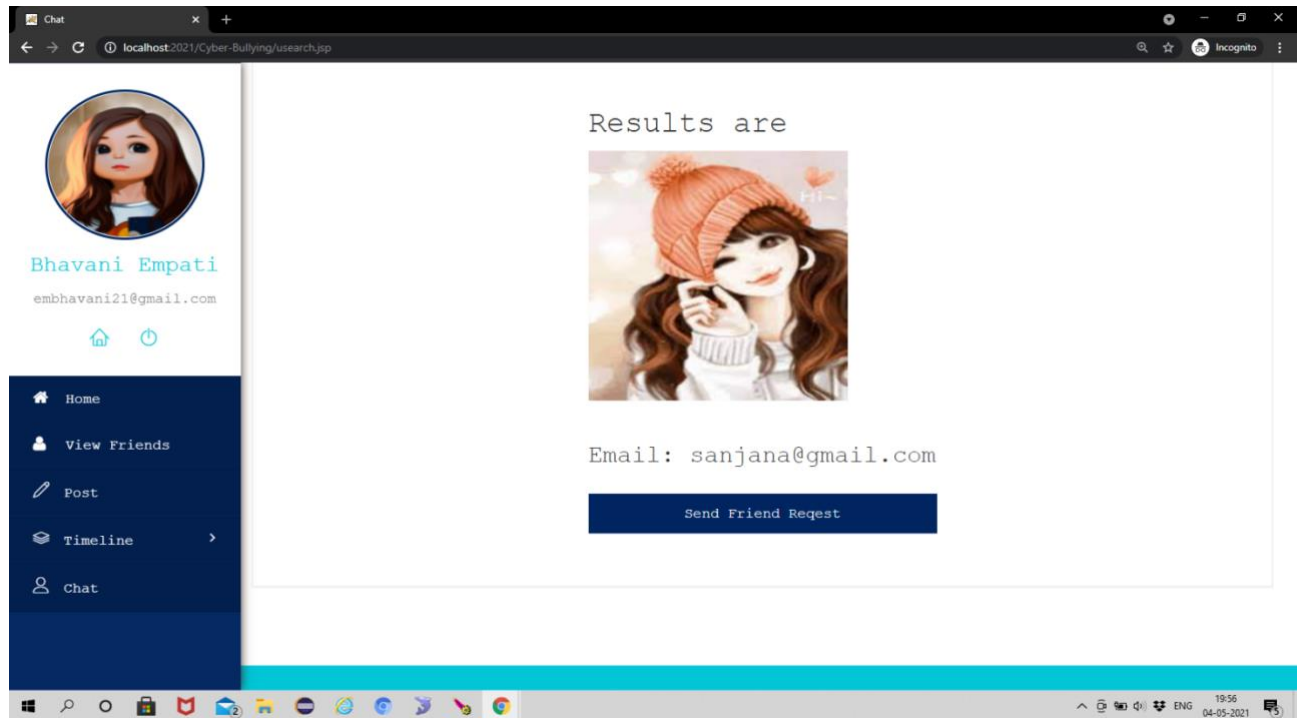


Fig 7.9-Webpage for sending friend request

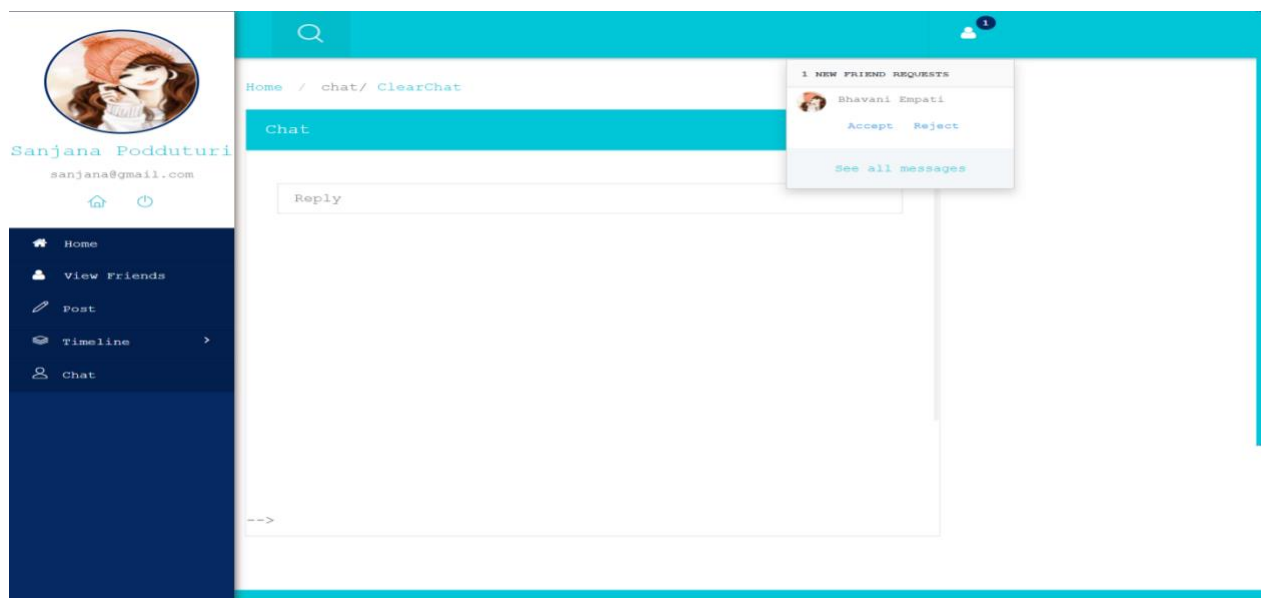


Fig 7.10-Webpage for accepting friend request

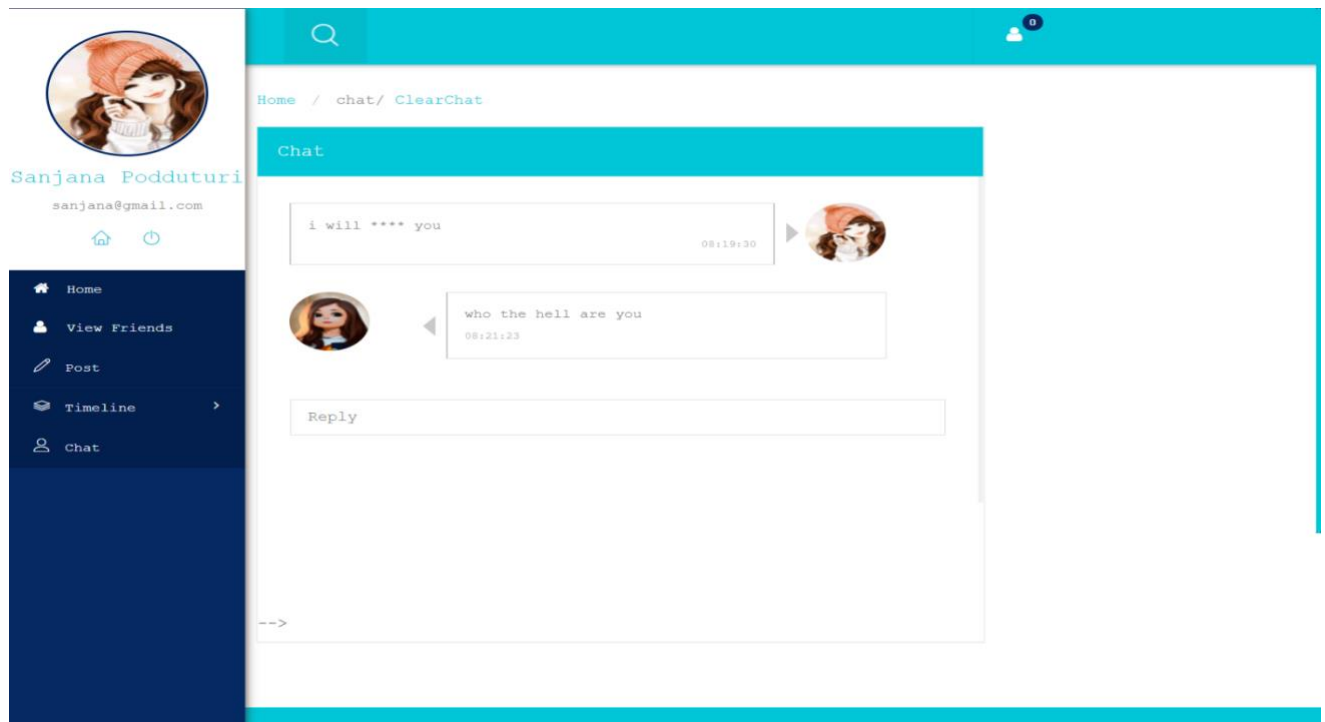


Fig 7.11 - Webpage for chat between users

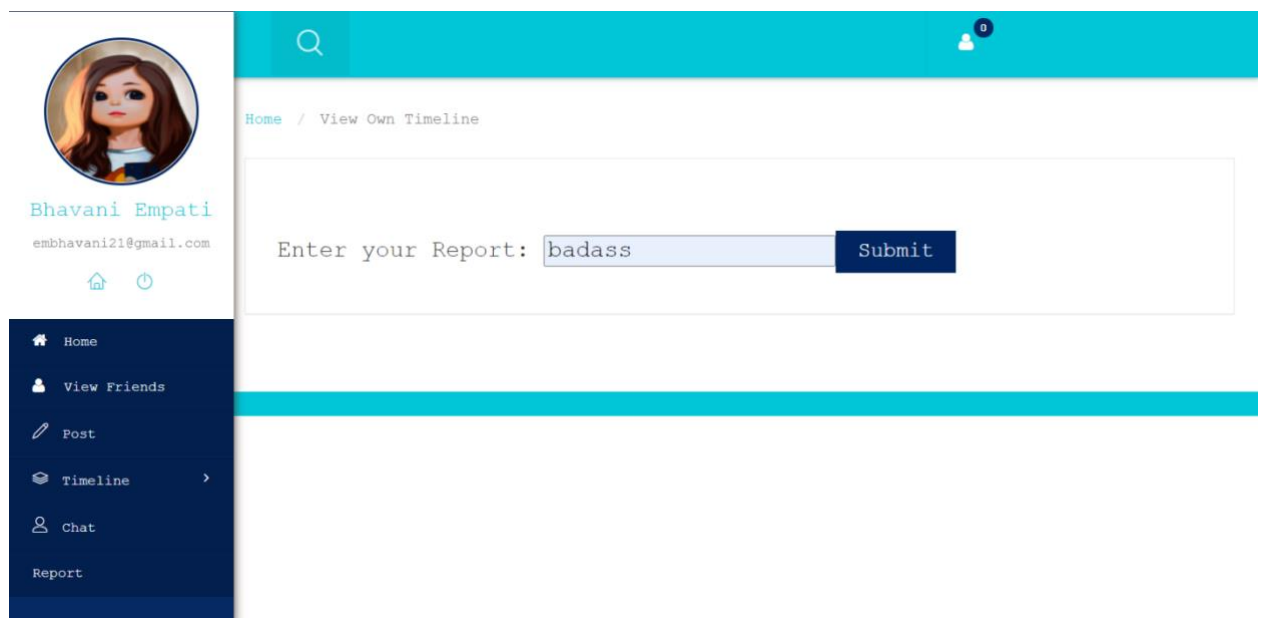


Fig 7.12 - Webpage for reporting bully words

APPENDIX

b_add.jsp

```

<% @ page import="java.sql.*" import="com.mysql.*" import="GCTC.*"%>
<% @ include file="aheader.jsp"%>

                                <%
                                String message=request.getParameter("m");
                                if(message!=null && message.equalsIgnoreCase("fail"))
                                {
                                out.println("<font color='red'><blink>You Entered
String is duplicate</blink></font>");
                                }

                                message=request.getParameter("id");
                                if(message!=null )
                                {
                                out.println("<script type=text/javascript> alert('Data
Added !!');</script>");
                                }
                                %>

<div>
<CENTER><h1>Add Category</h1></CENTER>
<hr>
<%
int count=0;
Connection con1=DatabaseCon.getConnection();
//System.out.println(con1);
                                Statement st = con1.createStatement();
                                ResultSet rs=st.executeQuery("select * from category");
                                %>
                                <table align="center" cellpadding="5" width="80%">
                                <tr><td><h3><font size="" color="#000"><b><b>SNo <td><h3><font size=""
                                color="#000"><b>Catgeory
                                <% while(rs.next())
                                {
                                %>
                                <tr><td><%=++count%>
                                <td><%=rs.getString(1)%>
                                <%
                                }
                                %>
                                <form method="post" action="add_1.jsp" >
                                <tr><td><td><input required type="text" name="level1" size="40"><input required
                                type="submit" value=" ADD ">
                                </form>

```

```

</table>
<hr>
<CENTER>
<h2>
Add Bullying Words
</h2>
</CENTER>
<%
count=0;
st = con1.createStatement();
rs=st.executeQuery("select * from words");

%>
<table align="center" cellpadding="5" width="70%">
<tr><td><h3><font size="" color="#000"><b>Sno</font><td><h3><font size=""
color="#000"><b>Category</font><td><h3><font size="" color="#000"><b>Word</font>
<%
while(rs.next())
{
%>
<tr><td><%=++count%><td><%=rs.getString(2)%><td><%=rs.getString(3)%>

<%
                                                                    }
%>
</table>

<%
                                                                    st = con1.createStatement();
                                                                    rs=st.executeQuery("select * from category");

%>
<form method="post" action="add_2.jsp">

<table align="center" cellpadding="5">
<tr><td><h3><font size="" color="#000"><b>Select Category</font>
<tr><td><select name="level1">
<%
while(rs.next())
                                                                    {
                                                                    %>
                                                                    <option value="<%=rs.getString(1)%>"><%=rs.getString(1)%>

<%
                                                                    }
%>

```



```

</select><br>

<tr><td><input required type="text" name="level2" size="30"><input type="submit"
value="  ADD  ">

</form>
</table>
<hr>
<!-- *****88 -->
<% @ include file="afooter.jsp"%>

```

aheader.jsp

```

<% @ page import="java.util.*" import="com.ct.*" %>
<!DOCTYPE HTML>
<html>
<head>
<title></title>
<meta name="viewport" content="width=device-width, initial-scale=1">
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<meta name="keywords" content="Augment Responsive web template, Bootstrap Web
Templates, Flat Web Templates, Android Compatible web template,
Smartphone Compatible web template, free webdesigns for Nokia, Samsung, LG,
SonyEricsson, Motorola web design" />
<script type="application/x-javascript"> addEventListener("load", function() {
setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); }
</script>
<!-- Bootstrap Core CSS -->
<link href="css/bootstrap.min.css" rel='stylesheet' type='text/css' />
<!-- Custom CSS -->
<link href="css/style.css" rel='stylesheet' type='text/css' />
<!-- Graph CSS -->
<link href="css/font-awesome.css" rel="stylesheet">
<!-- jQuery -->
<!-- lined-icons -->
<link rel="stylesheet" href="css/icon-font.min.css" type='text/css' />
<!-- /js -->
<script src="js/jquery-1.10.2.min.js"></script>
<!-- //js-->
</head>
<body>
<div class="page-container">
<!--/content-inner-->
<div class="left-content">
<div class="inner-content">
<!-- header-starts -->

```

```

<div class="header-section">
<!--menu-right-->
<div class="top_menu">
<!--/profile_details-->
<!--/profile_details-->
</div>
</div>
<!--//menu-right-->
<div class="clearfix"></div>
</div>
<!-- //header-ends -->
<!--outter-wp-->
<div class="outter-wp">
<!--sub-heard-part-->
<div class="sub-heard-part">
<ol class="breadcrumb m-b-0">
<li><a href="admin_home.jsp">Home</a></li>
</ol>
</div>
<!--//sub-heard-part-->
<div class="graph-visual tables-main">
<div class="graph">
<div class="block-page">

afooter.jsp

</p></div>

</div>

</div>

<!--//graph-visual-->

</div>

<!--//outter-wp-->

<!--footer section start-->

<footer>

</font></h5>

</footer>

<!--footer section end-->

</div>

</div>

<!--//content-inner-->

```

```

<!--/sidebar-menu-->

<div class="sidebar-menu">

<div style="border-top:1px solid rgba(69, 74, 84, 0.7)"></div>

<!--/down-->

<div class="down">

<a href=""></a>

<a href=""><span class=" name-caret">Admin

</span></a>

<ul>

<li><a class="tooltips" href="admin_home.jsp"><span>Home</span><i class="lnr lnr-
home"></i></a></li>

<li><a class="tooltips" href="index.jsp"><span>Log out</span><i class="lnr lnr-power-
switch"></i></a></li>

</ul>

</div>

<!--//down-->

<div class="menu">

<ul id="menu" >

<li id="menu-academico" ><a href="admin_home.jsp"><i class="fa fa-home"></i> <span>
Home</span> </a>

</li>

<li id="menu-academico" ><a href="viewrep.jsp"><i class="fa fa-user"></i> <span> View
Reports</span> </a>

<li id="menu-academico" ><a href="viewusers.jsp"><i class="fa fa-user"></i> <span> View
Users</span> </a>

<li id="menu-academico" ><a href="b_user.jsp"><i class="fa fa-user"></i> <span> Blocked
Users</span> </a>

<li id="menu-academico" ><a href="b_add.jsp"><i class="fa fa-user"></i> <span> ADD
BULLING WORDS</span> </a>

</li>

```

```

</div>

</div>

<div class="clearfix"></div>

</div>

<script>
var toggle = true;

$(".sidebar-icon").click(function() {
  if (toggle)
  {
    $(".page-container").addClass("sidebar-collapsed").removeClass("sidebar-collapsed-back");
    $("#menu span").css({"position":"absolute"});
  }
  else
  {
    $(".page-container").removeClass("sidebar-collapsed").addClass("sidebar-collapsed-back");
    setTimeout(function() {
      $("#menu span").css({"position":"relative"});
    }, 400);
  }
  toggle = !toggle;
});
</script>

<!--js -->

<!--<script src="js/css3clock.js"></script>

<script src="js/jquery.nicescroll.js"></script>

<script src="js/scripts.js"></script>

<!-- Bootstrap Core JavaScript -->

<!--<script src="js/css3clock.js"></script>

```

```
<script src="js/bootstrap.min.js"></script-->
```

```
</body>
```

```
</html>
```

blockuser.jsp

```
<% @ include file="aheader.jsp"%>
```

```
<% @ page import="java.sql.*" import="databaseconnection.*" %>
```

```
<% @ page import="java.sql.*" import="com.mysql.*"
import="javax.swing.JOptionPane"%>
```

```
<h2>View Chat</h2>
```

```
<head>
```

```
<style>
```

```
#tab {
```

```
font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
```

```
border-collapse: collapse;
```

```
width: 100%;
```

```
}
```

```
#tab td, #tab th {
```

```
border: 1px solid #ddd;
```

```
padding: 8px;
```

```
}
```

```
#tab tr:nth-child(even){background-color: #f2f2f2;}
```

```
#tab tr:hover {background-color: #ddd;}
```

```
#tab th {
```

```
padding-top: 12px;
```

```
padding-bottom: 12px;
```

```
text-align: left;
```

```
background-color: #4CAF50;
```

```
color: white;
```

```
}
```

```

</style>

</head>

<%

String email=request.getParameter("email");

try{ Connection con = DatabaseCon.getConnection();

Statement st=con.createStatement();

st.executeUpdate("update users set st_=st_+1 where email='"+email+"'");

}

catch(Exception e){

}

response.sendRedirect("malicioususer.jsp");

%>

<% @ include file="afooter.jsp"%>

```

block.jsp

```

<%--

    Document   : report

    Created on  : Oct 24, 2016, 11:19:12 AM

    Author      : java4

--%>

<% @ include file="aheader.jsp"%>

<% @ page import="java.sql.*" import="databaseconnection.*" %>

<% @ page import="java.sql.*" import="com.ct.*"%>

<% @      page      import="java.sql.*"      import="java.util.*"      import="com.ct.*"
import="com.mysql.*" %>

<% @                page                import="java.sql.*"      import="com.mysql.*"
import="javax.swing.JOptionPane"%>

<%

    String block = (String) session.getAttribute("msg");

    System.out.println("value get is " + block);

```

```

        boolean bol = false;

        Class.forName("com.mysql.jdbc.Driver");

        Connection con =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/socialmonitor", "root", "root");

        Statement st = con.createStatement();

        String Query = "select * from admin";

        ResultSet rs = st.executeQuery(Query);

        while (rs.next()) {

            String val1 = rs.getString("bad");

            System.out.println("val1 is :" + val1);

            if (block.indexOf(val1) >= 0) {
response.sendRedirect("report.jsp?" + block);
            bol = false;

            break;

            } else {

                bol = true;

            }

        }

        if (bol == true) {

            response.sendRedirect("post.jsp?" + block);

        }

    %>

```

malicioususer.jsp

```

<% @ include file="aheader.jsp"%>

<% @ page import="java.sql.*" import="databaseconnection.*" %>

<% @           page           import="java.sql.*"           import="com.mysql.*"
import="javax.swing.JOptionPane"%>

<h2>Malicious Users</h2>

<head>

```

```
<style>
#tab {
    font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}
#tab td, #tab th {
    border: 1px solid #ddd;
    padding: 8px;
}
#tab tr:nth-child(even){background-color: #f2f2f2;}
#tab tr:hover {background-color: #ddd;}
#tab th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #4CAF50;
    color: white;
}
</style>
</head>
<%
try{
Connection con = DatabaseCon.getConnection();
Statement st=con.createStatement();
String sql="select * from users where st_=1";
System.out.println(sql);
ResultSet rs=st.executeQuery(sql);
```



```

int sno=0;

%>

<table align="center" id="tab">

<tr><th>Sno<th>Name<th>Email<th>Contact<th>City

<%

while(rs.next()){

%>

<tr><td><%=++sno%><td><%=rs.getString("name")%><td><%=rs.getString("email")%>
<td><%=rs.getString("ph")%>

<td><%=rs.getString("city")%><td><a
href="viewc.jsp?email=<%=rs.getString("email")%>" target="_blank">View Chat</a>

<%

}

}

catch(Exception e){

}

%>

</table>

<% @ include file="afooter.jsp"%>

post.jsp

<%String head1="Share";%>

<%String head2="Share post..";%>

<% @ include file="uheader.jsp"%>

    <div class="panel-heading">

        <%

            String id=request.getParameter("id");

            if(id!=null )

            {

                out.println("<br><blink>    <font    color=#00ffcc
size=4><b>Your Post Posted Successfull..</b> </blink></font>");

```

```

    }

    else { %>
    <% } %>
</div>

<div class="panel-body">
    <ul class="nav nav-tabs">
        <li class="active"><a href="#home" data-toggle="tab">Upload
Image</a>

        </li>
        <li class=""><a href="#profile" data-toggle="tab">Only Text</a>
        </li>
    </ul>

    <div class="tab-content">
        <div class="tab-pane fade active in" id="home">
            <h4>Upload Image</h4>
            <p>
<form action="post4.jsp" ENCTYPE="multipart/form-data" method="post" >
<br><input type="file" name="pic" accept="image/*" required><br><br>
                <button type="submit" class="btn btn-default">Upload</button>
            </form>
            </p>
        </div>
        <div class="tab-pane fade" id="profile">
            <h4>Share Something..</h4>
            <p>
                <form method="post" action="post3.jsp">
<br>
            <table width="50%">

```

```

<tr>

<td><textarea class="form-control" rows="3" placeholder="Enter some text" name="post"
required></textarea>

<br>

</td>

</tr>

</table>

<button type="submit" class="btn btn-default">Upload</button>

</form>

</p>

</div>

</div>

</div>

</div> </div>

<% @ include file="ufooter.jsp"%>

```

signup.jsp

```

<% @ include file="header.jsp"%>

<div class="error-top up">

<div class="login">

    <h3 class="inner-tittle t-inner">Sign Up</h3>

    <form method="post" action="signup2.jsp">

<input type="text" class="text" placeholder="Your Name" required name="name">

<input type="tel" class="text" placeholder="Contact Number" pattern="[0-9]{10}" required
name="ph">

<input type="text" class="text" placeholder="Enter Your City" required name="city">

<input type="email" class="text" placeholder="E-mail address" class="form-control"
required name="email">

    <input type="password" placeholder="Password" required name="pwd">

    <div class="submit"><input type="submit" onclick="myFunction()"

```

```

placeholder="Sign up" ></div>

    <div class="clearfix"></div>

    <div class="buttons">

        <ul>

        </ul>

        <div>

            <div class="new">

                <p class="sign up">Do you have an account yet ? <a href="index.jsp"> Login
here.</a></p>

            <div class="clearfix"></div>

        </div>

    </form>

</div>

</div>

</div>

<!--//login-top-->

</div> </div> </div></div></div>

    <br><br><br><br><br><br><br><br><br>

    <% @ include file="footer.jsp"%>

```

loginaction.jsp

```

<% @ include file="header.jsp"%>

<div class="error-top up">

<div class="login">

<h3 class="inner-tittle t-inner">Sign Up</h3>

<form method="post" action="signup2.jsp">

<input type="text" class="text" placeholder="Your Name" required name="name">

<input type="tel" class="text" placeholder="Contact Number" pattern="[0-9]{10}" required
name="ph">

<input type="text" class="text" placeholder="Enter Your City" required name="city">

```

```
<input type="email" class="text" placeholder="E-mail address" class="form-control"
required name="email">
```

```
<input type="password" placeholder="Password" required name="pwd">
```

```
<div class="submit"><input type="submit" onclick="myFunction()" placeholder="Sign up"
></div>
```

```
<div class="clearfix"></div>
```

```
<div class="buttons">
```

```
<ul>
```

```
</ul>
```

```
<div>
```

```
<div class="new">
```

```
<p class="sign up">Do you have an account yet ? <a href="index.jsp"> Login here.</a></p>
```

```
<div class="clearfix"></div>
```

```
</div>
```

```
</form>
```

```
</div>
```

```
</div>
```

```
<!--//login-top-->
```

```
</div> </div> </div></div></div>
```

```
<br><br><br><br><br><br><br><br><br>
```

```
<% @ include file="footer.jsp"%>
```

report.jsp

```
<% @ include file="aheader.jsp"%>
```

```
<% @ page import="java.sql.*" import="databaseconnection.*" %>
```

```
<% @ page import="java.sql.*" import="com.ct.*"%>
```

```
<% @ page import="java.sql.*" import="java.util.*" import="com.ct.*"
import="com.mysql.*" %>
```

```
<% @ page import="java.sql.*" import="com.mysql.*"
```

```

import="javax.swing.JOptionPane"%>

<%

String msgg = (String) session.getAttribute("msg");
String id = (String) session.getAttribute("id");
String name = (String) session.getAttribute("name");
String mail = (String) session.getAttribute("email");
String gender = (String) session.getAttribute("gender");
try {
Connection con = DatabaseCon.getConnection();
Statement st = con.createStatement();
System.out.println("Print Value" + msgg);
int i = st.executeUpdate("DELETE FROM post WHERE msg=" + msgg + "");
if (i != 0) {
System.out.println("deleted valus from mysql DB");

int in = st.executeUpdate("INSERT into bully(id, name, email, gender, bullymessage,
bully) values (" + id + ", " + name + ", " + mail + ", " + gender + ", " + msgg + ", 'No')");
if (in != 0) {

response.sendRedirect("post.jsp?msgggg=success");
} else {
response.sendRedirect("post.jsp?msggg=Error");
}
}
System.out.println("Error");
} catch (Exception EX) {
EX.printStackTrace();
}%>

```

CHAPTER -8

8.CONCLUSION

With the rapid growth of the Internet, people interact with other people. However, the chance for misuse comes with any new technology. These techniques lead to cyberbullying. Our literature review illustrates the cyberbullying detection techniques adopted so far to address this problem. We discussed machine learning techniques to detect cyberbullying. These techniques make automatic detection of bullying messages in social media and this could help to construct a healthy and safe social media environment. So these techniques can be worked upon by collecting new datasets and then applying various machine learning algorithms on them to obtain desired accuracy. Sentiment analysis can be performed on the social media data by extracting data from various social networking sites using the available datasets and tools to identify the presence or absence of cyberbullying by determining the tone of text at sentence level or document level. Weka, Rapidminer, R, Orange are some of the tools that can be used for this purpose. Efficiency of cyberbullying detection will decrease due to a constrained word set of negative words. A research can be carried out in detecting new lingo used in bullying so that the bad word set can be updated on a daily basis to improve the learning ability of the classifier. As mentioned before, there is no labeled dataset and very few datasets are available, so future research can work on collecting new datasets for the future study. A large dataset is also available on ChatCoder which contains online bullying data. So the dataset can be downloaded from here and research can be carried out further to detect cyberbullying so that appropriate actions can be taken regarding generation of awareness and counseling in order to eradicate this evil.

CHAPTER -9

9.REFERENCES

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