NEWS PORTAL

PROJECT REPORT

Submitted by

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Under the guidance of

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BIJU PATNAIK UNIVERSITY OF TECHNOLOGY: ORISSA

BONAFIED CERTIFICATE

Certified that this project report **"NEWS PORTAL"** is the bonafied work of **Aneeta kumari** who carried out the project work under my supervision.

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Aneeta Kumari

Abstract

Our project is News portal. Today the world totally relays upon the electronic media to its every day adventure. People have no time to be updated through newspaper or watching or listening the news on television or radios. People today need to be updated on daily basis in this competitive world. Most of the people get the information about the world around through the internet which is fast, accessible, and reliable. The WWW (World Wide Web) is huge, widely distributed, global information service centre for Information services: news, advertisements, consumer information, financial management, education, government, e-commerce etc, hyper-link information, access and usage information. “24 Hours News Portal” is a service introduced to meet the above requirement and to make the people updated about the news, views, reviews, breaking news and latest headlines in different fields also the new inventions around the world.

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CHAPTER 1: INTRODUCTION

1.1 WHAT IS NEWS PORTAL?

The “News Portal” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it provides it is user-friendly. News Portal, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

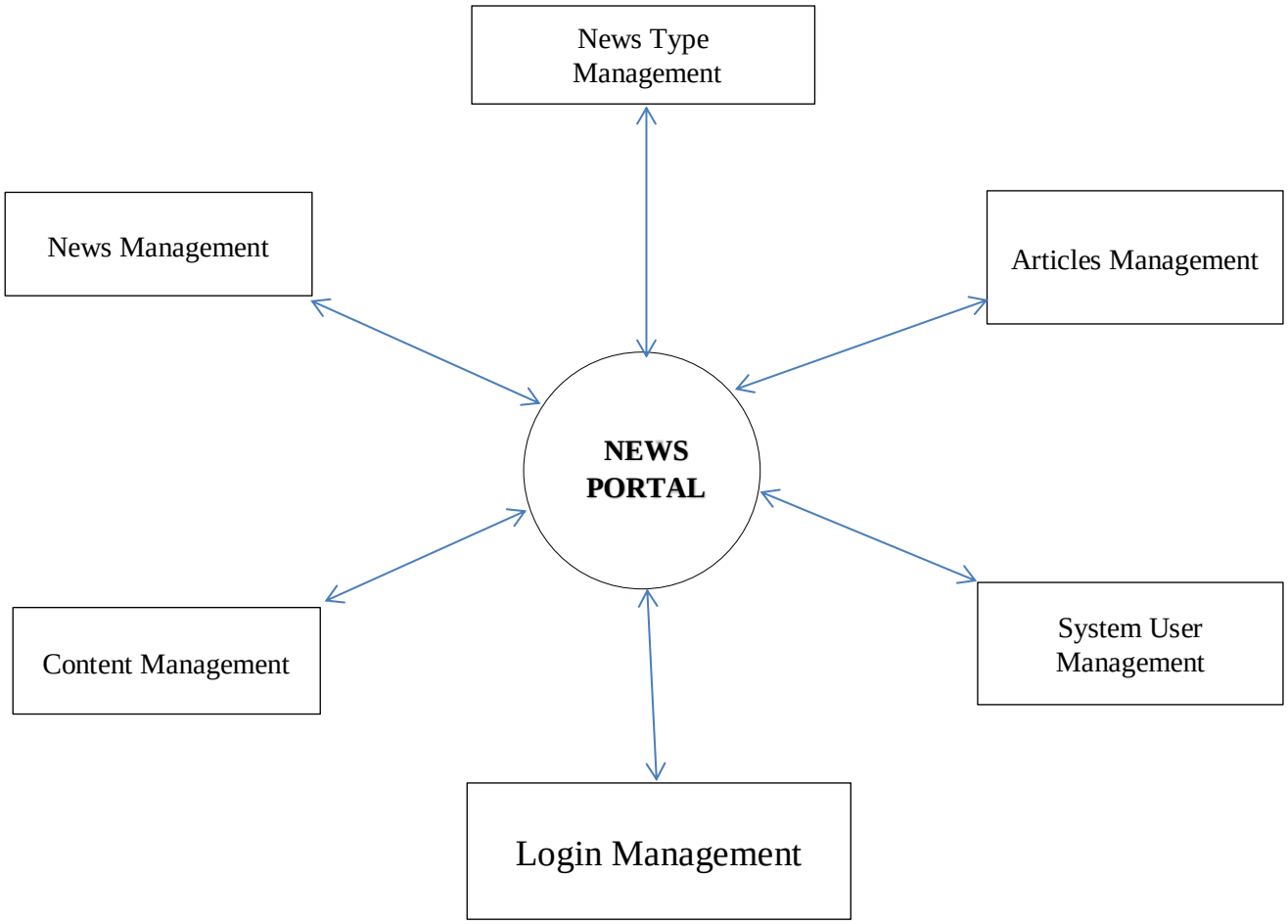
Every organization, whether big or small, has challenges to overcome and managing the information of category, News Weather News, News Report, Bollywood News, Every News Portal has different News needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. Which will allow you to manage your workforce anytime, at all times, These systems will ultimately allow you to better manage resources.

1.2 OBJECTIVE

The main objective of the project on News Portal is to manage the details of News, News Category, Latest News, Sports News, Weather News, it manages all the information about News, Comment, Weather News, News, The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the News, News Category, Comment, Latest News. It tracks all the details about the Latest News, Sports News, Weather News.

The News Portal of this project is to develop a web application for online News Paper website that can aware the people. The objective of this project is to provide the daily news. The objective of this project is to provide the breaking news.

0-Level DFD



Zero Level DFD - News Portal

- A role-based system and can be managed like a real newspaper.
- To maintain a standard and structured website.
- To make a website that is updated 24 hours.
- To enhance the quality of news to the users.
- To give information about the different firm and companies of the country which are registered using our directory.
- To make a search engine for the directory and articles.

1.3 HOW DAILY NEWS ARE POSTED / UPDATED ?

Today's NEWS Headlines, Breaking News & Latest News from India and World, News from Politics, Sports, Business, Arts and Entertainment.

A News Portal is a periodical publication containing written information about current events and is often typed in black ink with a white or gray background. Newspapers are typically published daily or weekly. News magazines are also weekly, but they have a magazine format .General-interest newspapers typically publish news articles and feature articles on national and international news as well as local news. The news includes political events and personalities, business and finance , crime, weather, and natural disasters; health and medicine, science, and computers and technology; sports and entertainment, society, food and cooking, clothing and home fashion, and the arts.

Most News Portal businesses, and they pay their expenses with a mixture subscription revenue.Newsstand sales, and advertising revenue. Newspapers developed in the 17th century, as information sheets for merchants. By the early 19th century, many cities in Europe, as well as North and South America, Published newspapers.

1.4 WHY NEWS PORTAL IS IMPORTANT?

- **Makes Remotely Provided International News Portal More Accessible**

The world is going to be more digital, and digitization is the need of every business, every Industry. Online News Sites play a vital role in educating and informing Mass with latest updates, current happenings around the globe. People don't have much more time to read the Printed newspaper with yesterday's happening, so they always follow web portals or Electronic Media for getting latest News. With Electronic media, there is a certain problem like Costing of On Air is higher, and everyone is not always in front of Television set, but they can access their mobile, social sites, Whatsapp, Facebook etc. so they will defiantly update them self very fast and less time-consuming methods. Online News Website and social media can give the fastest news Updates. Now every publisher has to build their web identity.

Only Web media having the power of this, Web media is a wonderful and demanding source in any society because it provides fastest news on various issues as one package. with a web news portal you can get news on various topics like politics, world, business, sports, Health, Features product info, gadget comparison, finance etc at a time, news portal provides easy access from all across the globe on just a mouse click.

People rely on the online media as the major channel of information because there is lots of trusted news websites present in WWW.

Any news or article or a piece of information over a news websites or social media has a deep impact on the mass. It's an easily accessible and authenticate the source of information that also provides you the options to express your opinion and view on any news.

Some of the news websites provide videos and pictures of any latest breaking news that happens around us.

The most important part of a web portal contains all history of news and articles in its archive section so that you can get any news of past by searching it any time.

A news portal keeps you updated on various worldwide issues at your fingertips with their best and authenticate the source of information.

- **A news portal solves several purposes:**

  1. News sites offer the information to the public, political, social, sports, health, entertainment etc.
  2. Instant & latest news from all over the world.
  3. Easier accessibility.
  4. Fastest and Latest news updates as per the interest.
  5. Live coverage of Events, Cricket matches and other sports etc.
  6. A reader can easily give his/her comments on any issue.
  7. Breaking News can update Minute-to-minute.
  8. Pictures of specials news events.
  9. Mobile Responsive sites can access easily.
  10. Cost effective Advertisement Solutions.
  11. Advertiser gets the details of people who read their ad , this facility cannot offer by print or Electronic media.

1.5 WHAT FACTORS ARE DRIVING THE GROWTH OF NEWS PORTAL?

Learning Light has done a detailed analysis on what is driving the growth of news portal. Key aspects are:

- Demand due to **growth of e-learning**
- Elimination of high **costs of proctored assessment centres**
- Save learners' **time and money**
- There are **not enough infrastructure** or computer labs to administer exam conditions environments.

- Increasing focus on work-based apprenticeships and the alignment of learning and assessments to actual organizational needs
- Considering the current global scenario, where more and more institutes are opting to digitize various processes, online proctoring is seeing an increase in its usage across the globe.

CHAPTER 2: WEB-DEVELOPMENT

Web development is a broad term for the work involved in developing a web site for the Internet (World Wide Web) or an intranet (a private network). Web development can range from developing the simplest static single page of plain text to the most complex web-based internet applications, electronic businesses, and social network services. A more comprehensive list of tasks to which web development commonly refers, may include web engineering, web design, web content development, client liaison, client-side/side scripting, web server and network security configuration, and e-commerce development. Among web professionals, "web development" usually refers to the main non-design aspects of building web sites: writing mark up and coding. Most recently Web development has come to mean the creation of content management systems or CMS. These CMS can be made from scratch, proprietary or open source. In broad terms the CMS acts as middleware between the database and the user through the browser. A principle benefit of a CMS is that it allows non-technical people to make changes to their web site without having technical knowledge.

For larger organizations and businesses, web development teams can consist of hundreds of people (web developers) and follow standard methods like Agile methodologies while developing websites. Smaller organizations may only require a single permanent or contracting developer, or secondary assignment to related job positions such as a graphic designer or information systems technician. Web development may be a collaborative effort between departments rather than the domain of a designated department. There are three kind of web developer specialization: front-end developer, back-end developer, and full-stack developer.

2.1 WEB-SITE

A website is a collection of related web pages, including multimedia content, typically identified with a common domain name, and published on at least one web server. A website may be accessible via a public Internet Protocol (IP) network, such as the Internet, or a private local area network (LAN), by referencing a uniform resource locator (URL) that identifies the site.

Websites have many functions and can be used in various fashions; a website can be a personal website, a commercial website for a company, a government website or a non-profit organization website. Websites are typically dedicated to a particular topic or purpose, ranging from entertainment and social networking to providing news and education. All publicly accessible websites collectively constitute the World Wide Web, while private websites, such as a company's website for its employees, and are typically a part of an intranet.

Web pages, which are the building blocks of websites, are documents, typically composed in plain text interspersed with formatting instructions of Hypertext Mark-up Language (HTML, XHTML). They may incorporate elements from other websites with 10 suitable mark-up anchors. Web pages are accessed and

transported with the Hypertext Transfer Protocol (HTTP), which may optionally employ encryption (HTTP Secure, HTTPS) to provide security and privacy for the user. The user's application, often a web browser, renders the page content according to its HTML markup instructions onto a display terminal. Hyperlinking between web pages conveys to the reader the site structure and guides the navigation of the site, which often starts with a home page containing a directory of the site web content. Some websites require user registration or subscription to access content. Examples of subscription websites include many business sites, news websites, academic journal websites, gaming websites, file-sharing websites, message boards, web-based email, social networking websites, websites providing real-time stock market data, as well as sites providing various other services. As of 2016 end users can access websites on a range of devices, including desktop and laptop computers, tablet computers, smartphones and smart TVs. A web site consists of web pages which are interconnected to each other and contain various data and functionalities.

2.2 WEB-PAGE

A web page, or webpage, is a document that is suitable for the World Wide Web and web browsers. A web browser displays a web page on a monitor or mobile device. The web page is what displays, but the term also refers to a computer file, usually written in HTML or comparable mark-up language. Web browsers coordinate the various web resource elements for the written web page, such as style sheets, scripts, and images, to present the web page.

Typical web pages provide hypertext that includes a navigation bar or a sidebar menu to other web pages via hyperlinks, often referred to as links.

On a network, a web browser can retrieve a web page from a remote web server. On a higher level, the web server may restrict access to only a private network such as a corporate intranet or it provides access to the World Wide Web. On a lower level, the web browser uses the Hypertext Transfer Protocol (HTTP) to make such requests.

A static web page is delivered exactly as stored, as web content in the web server's file system, while a dynamic web page is generated by a web application that is driven by server-side software or client-side scripting. Dynamic website pages help the browser (the client) to enhance the web page through user input to the server

CHAPTER 3: THE STEPS TO CREATE A WEB SITE

Creating a web site requires multiple steps which includes the following:

- Creating a UI (User interface)
- Scripting (Both at server end and client end)
- Creating a backend or the database

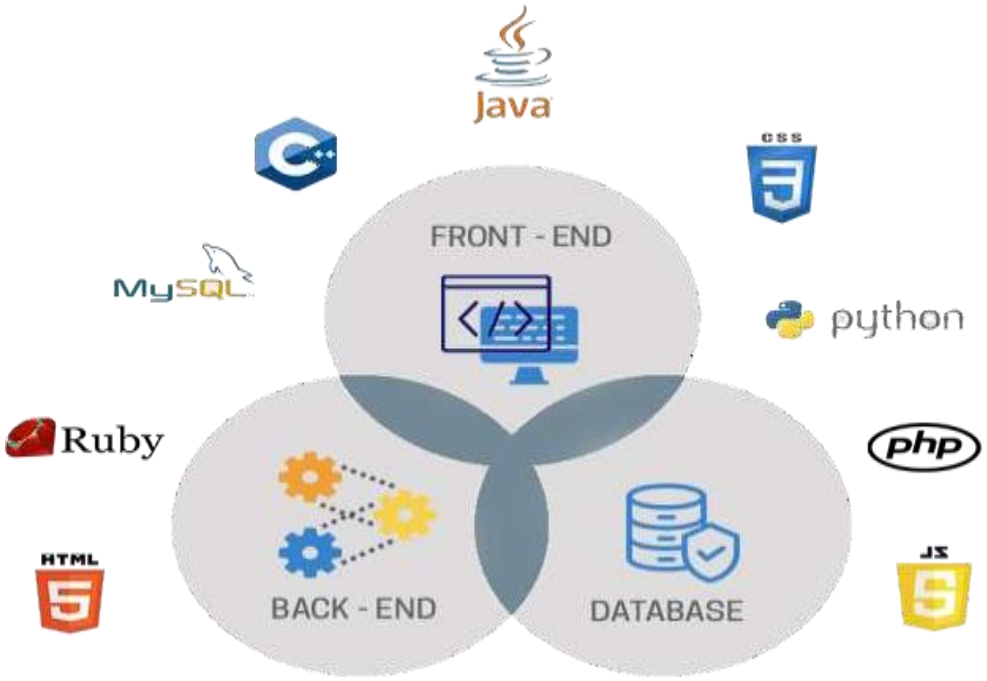


Fig 3.1 shows creation of web page using tools

3.1 UI DEVELOPMENT

Technologies that are mostly used to develop a User Interface are:

- HTML
- CSS
- Bootstrap

3.1.1 HTML

Hypertext Mark-up Language (HTML) is the standard mark-up language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript it forms a triad of cornerstone

technologies for the World Wide Web. Web browsers receive HTML documents from a webserver or from local storage and render them into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects, such as interactive forms, may be embedded into the rendered page. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets.
Tags such as </img> and </input> introduce content into the page directly. Others such as … surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.
HTML can embed programs written in a scripting language such as JavaScript which affect the behaviour and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.
HTML mark-up consists of several key components, including those called tags (and their attributes), character-based data types, character references and entity references. HTML tags most commonly come in pairs like <h1> and </h1 >, although some represent empty elements and so are unpaired, for example <img>. The first tag in such a pair is the start tag, and the second is the end tag (they are also called opening tags and closing tags).
Another important component is the HTML document type declaration, which triggers standards mode rendering.
The following is an example of the classic Hello world program, a common test employed for comparing programming languages, scripting languages and mark-up languages. This example is made using 9 lines of code:

General Syntax of HTML,

```
<!DOCTYPE html>
<html>
    <head>
        <title>This is title</title>
    </head>
    <body>
        <p> Hello World! </p>
    </body>
</html>
```

(The text between <html> and </html> > describes the web page, and the text between <body> and </body> is the visible page content. The mark-up text "<title> This is title </title>" defines the browser page title.)

The Document Type Declaration <!DOCTYPE html> is for HTML5. If a declaration is not included, various browsers will revert to "quirks mode" for rendering.

3.1.2 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a mark-up language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually

engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .CSS file, and reduce complexity and repetition in the structural content.

Separation of formatting and content makes it possible to present the same mark-up page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. It can also display 14 the web page differently depending on the screen size or viewing device. Readers can also specify a different style sheet, such as a CSS file stored on their own computer, to override the one the author specified.

Changes to the graphic design of a document (or hundreds of documents) can be applied quickly and easily, by editing a few lines in the CSS file they use, rather than by changing mark-up in the documents.

The CSS specification describes a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities (or weights) are calculated and assigned to rules, so that the results are predictable.

The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text/CSS is registered for use with CSS by RFC 2318 (March 1998). The W3C operates a free CSS validation service for CSS documents.

TYPES OF CSS:

- Inline CSS:
  In this CSS is applied in between the tags
  e.g.- <tag style=" styling">Hello world! </tag>
- Internal CSS:
  In this the CSS code is defined inside the style tag in the head section of the HTML page.

  GENERAL SYNTAX:

```
<html>
    <head>
        <style>
        <! --CSS STYLING-->
        </style>
    </head>
</html>
```

- **External CSS:**

In this the CSS code is written on another page and is linked to the HTML page. It is advantageous to use this type of styling as we can use the same file to style various HTML pages.

External CSS uses the extension .CSS and is applied using the following syntax.

```
<html>
  <head>
      <link relation = “stylesheet” type = “CSS” href = “URL to the page”>
  </head>
</html>
```

All the CSS style types are important but can be used in different situations.

- Inline CSS is used when only small changes are to be done to the HTML tag and the changes are to be reflected only to that specific tag
- Internal CSS is used when the individual HTML pages have to be designed differently. This also slows the page load system if the internal styling is long.
- External CSS files are maintained to design multiple pages and use common styles over various pages. It is useful as it helps in managing the resources in an easy manner.

Both HTML and CSS are used to create a UI but CSS behaves like a makeup on the face of an actress which makes her look even more beautiful than she is in reality

.

And here is the difference:

Before using CSS in HTML page:

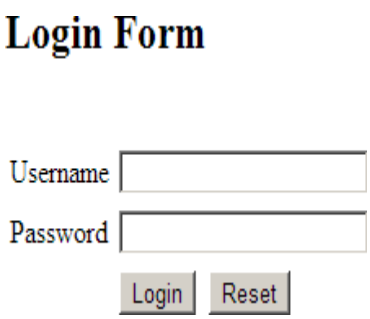


Fig 3.2 Log in Page

After using CSS in HTML Page:

Fig 3.3 Shows log in page after using CSS

3.1.3 BOOTSTRAP

Bootstrap is a free and open-source front-end web framework for designing websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only.

Bootstrap is the second most-starred project on GitHub, with more than 107,000 stars and 48,000 forks. Bootstrap, originally named Twitter Blueprint, was developed by Mark Otto and Jacob Thornton at Twitter as a framework to encourage consistency across internal tools. Before Bootstrap, various libraries were used for interface development, which led to inconsistencies and a high maintenance burden. According to twitter developer Mark Otto:

"A super small group of developers and I got together to design and build a new internal tool and saw an opportunity to do something more. Through that process, we saw ourselves build something much more substantial than another internal tool. Months later, we ended up with an early version of Bootstrap as a way to document and share common design patterns and assets within the company."

After a few months of development by a small group, many developers at Twitter began to contribute to the project as a part of Hack Week, a hackathon-style week for the Twitter development team. It was renamed from Twitter Blueprint to Bootstrap, and released as an 17 open source project on August 19, 2011. It has continued to be maintained by Mark Otto, Jacob Thornton, and a small group of core developers, as well as a large community of contributors.

On January 31, 2012, Bootstrap 2 was released, which added a twelve-column responsive grid layout system, inbuilt support for Glyphicons, several new components, as well as changes to many of the existing components.

On August 19, 2013, Bootstrap 3 was released, which redesigned components to use flat design, and a mobile first approach.

On October 29, 2014, Mark Otto announced that Bootstrap 4 was in development. The first alpha version of Bootstrap 4 was released on August 19, 2015.

Bootstrap 3 supports the latest versions of the Google Chrome, Firefox, Internet Explorer, Opera, and Safari (except on Windows). It additionally supports back to IE8 and the latest Firefox Extended Support Release (ESR).
Since 2.0, Bootstrap supports responsive web design. This means the layout of web pages adjusts dynamically, taking into account the characteristics of the device used (desktop, tablet, mobile phone). Starting with version 3.0, Bootstrap adopted a mobile-first design philosophy, emphasizing responsive design by default.
The version 4.0 alpha release added Sass and flexbox support.

Installing and linking bootstrap to the HTML page:

- Install bootstrap from https://getbootstrap.com/
- Copy the bootstrap.min.css file to your CSS folder and link it to the HTML page in the similar manner to how any other CSS file is linked.
- Link the bootstrap.min.js file which is present in the JS folder of the bootstrap. It can be linked using script tag.
- E.g.: <script scr = "URL to bootstrap.min.js"></script>
- Now use bootstrap classes to reduce the work of designing which was earlier done through CSS.

3.2 SCRIPTING

There are two scripting methodologies

- Server-side scripting: This scripting is done at the server end
- Client-side scripting: This scripting is done at the client end or the browser.

3.2.1 SERVER-SIDE SCRIPTING

Server-side scripting is a technique used in web development which involves employing scripts on a web server which produce a response customized for each user's (client's) request to the website. The alternative is for the web server itself to deliver a static web page. Scripts can be written in any of a number of server-side scripting languages that are available (see below). Server-side scripting is distinguished from client-side scripting where embedded scripts, such as JavaScript, are run client-side in a web browser, but both techniques are often used together.
Server-side scripting is often used to provide a customized interface for the user. These scripts may assemble client characteristics for use in customizing the response based on those characteristics, the user's requirements, access rights, etc. Server-side scripting also enables the website owner to hide the source code that generates the interface, whereas with client-side scripting, the user has access to all the code received by the client. A down-side to the use of server-side scripting is that the client needs to

make further requests over the network to the server in order to show new information to the user via the web browser. These requests can slow down the experience for the user, place more load on the server, and prevent use of the application when the user is disconnected from the server.

When the server serves data in a commonly used manner, for example according to the HTTP or FTP protocols, users may have their choice of a number of client programs (most modern web browsers can request and receive data using both of those protocols). In the case of more specialized applications, programmers may write their own server, client, and communications protocol that can only be used with one another.

Programs that run on a user's local computer without ever sending or receiving data over a network are not considered clients, and so the operations of such programs would not be considered client-side operations.

SERVER-SIDE SCRIPTING LANGUAGE

There are several languages that can be used for server-side programming:

- PHP
- ASP.NET (C# OR Visual Basic)
- C++
- Java and JSP
- Python
- Ruby on Rails and so on.

PROGRAMMING LANGUAGE POPULARITY ON GITHUB PROJECTS

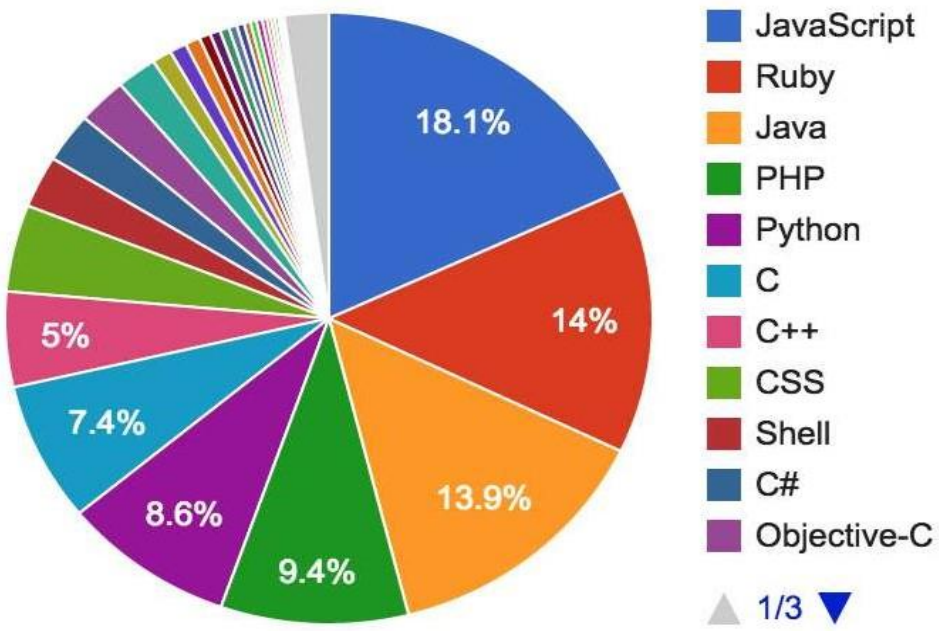


Fig 3.4 Pie chart of some popular language for GitHub Project

3.2.2 CLIENT-SIDE SCRIPTING

Client-side scripting is changing interface behaviours within a specific web page in response to mouse or keyboard actions, or at specified timing events. In this case, the dynamic behaviour occurs within the presentation. The client-side content is generated on the user's local computer system.

Such web pages use presentation technology called rich interfaced pages. Client-side scripting languages like JavaScript or ActionScript, used for Dynamic HTML (DHTML) and Flash technologies respectively, are frequently used to orchestrate media types (sound, animations, changing text, etc.) of the presentation. Client-side scripting also allows the use of remote scripting, a technique by which the DHTML page requests additional information from a server, using a hidden frame, XML Http Requests, or a Web service.

The first widespread use of JavaScript was in 1997, when the language was standardized as ECMAScript and implemented in Netscape 3.

Example:

The client-side content is generated on the client's computer. The web browser retrieves a page from the server, then processes the code embedded in the page (typically written in JavaScript) and displays the retrieved page's content to the user.

The most popularly used client-side scripting languages is Java Script. Flow of request from browser to server:

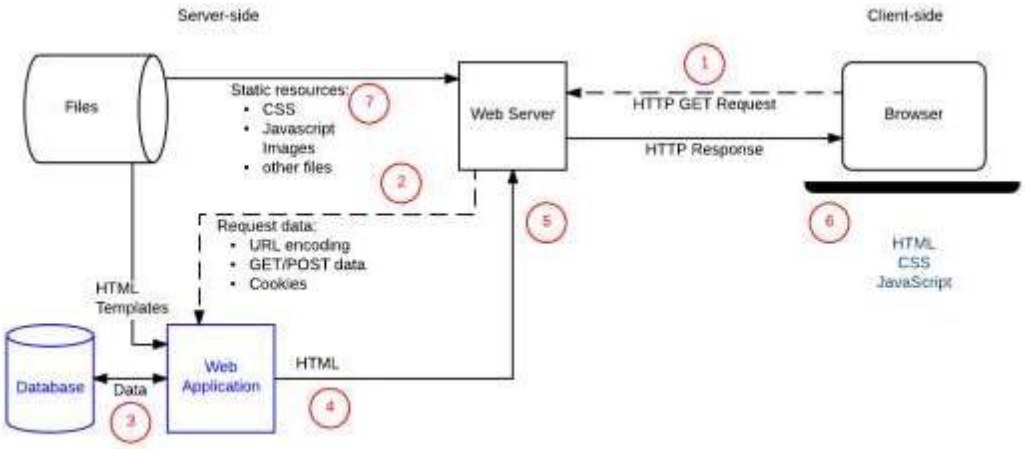


Fig 3.5 DATABASE

A database is an organized collection of data. It is the collection of schemas, tables, queries, reports, views, and other objects. The data are typically organized to model aspects of reality in a way that supports processes requiring information, such as modelling the availability of rooms in hotels in a way that supports finding a hotel with vacancies.
A database management system (DBMS) is a computer software application that interacts with the user, other applications, and the database itself to capture and analyse data. A general-purpose DBMS is designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include MySQL, PostgreSQL, MongoDB, MariaDB, Microsoft SQL Server, Oracle, Sybase, SAP HANA, MemSQL and IBM DB2. A database is not generally portable across different DBMSs, but different DBMS can interoperate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one DBMS. Database management systems are often classified according to the database model that they support; the most popular database systems since the 1980s have all supported the relational model as represented by the SQL language. Sometimes a DBMS is loosely referred to as a "database".

3.3 SQL

Originally based upon relational algebra and tuple relational calculus, SQL consists of a data definition language, data manipulation language, and data control language. The scope of SQL includes data insert, query, update and delete, schema creation and modification, and data access control. Although SQL is often described as, and to a great extent is, a declarative language (4GL), it also includes procedural elements.
SQL was one of the first commercial languages for Edgar F. Codd's relational model, as described in his influential 1970 paper, "A Relational Model of Data for Large Shared Data Banks." Despite not entirely adhering to the relational model as described by Codd, it became the most widely used database language. SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987. Since then, the standard has been revised to include a larger set of features. Despite the existence of such standards, most SQL code is not completely portable among different database systems without adjustments.

3.4 QUERIES

The most common operation in SQL, the query, makes use of the declarative SELECT statement. SELECT retrieves data from one or more tables, or expressions. Standard SELECT statements have no persistent effects on the database. Some non-standard implementations of SELECT can have persistent effects, such as the SELECT INTO syntax provided in some databases.

Queries allow the user to describe desired data, leaving the database management system (DBMS) to carry out planning, optimizing, and performing the physical operations necessary to produce that result as it chooses.

A query includes a list of columns to include in the final result, normally immediately following the SELECT keyword. An asterisk ("*") can be used to specify that the query should return all columns of the queried tables. SELECT is the most complex statement in SQL, with optional keywords and clauses that include:

- The FROM clause, which indicates the table(s) to retrieve data from. The FROM clause can include optional JOIN subclauses to specify the rules for joining tables.
- The WHERE clause includes a comparison predicate, which restricts the rows returned by the query. The WHERE clause eliminates all rows from the result set where the comparison predicate does not evaluate to True.
- The GROUP BY clause projects rows having common values into a smaller set of rows. GROUP BY is often used in conjunction with SQL aggregation functions or to eliminate duplicate rows from a result set. The WHERE clause is applied before the GROUP BY clause.
- The HAVING clause includes a predicate used to filter rows resulting from the GROUP BY clause. Because it acts on the results of the GROUP BY clause, aggregation functions can be used in the HAVING clause predicate.
- The ORDER BY clause identifies which column[s] to use to sort the resulting data, and in which direction to sort them (ascending or descending). Without an ORDER BY clause, the order of rows returned by an SQL query is undefined.
- The DISTINCT keyword eliminates duplicate data.

CHAPTER 4: SCRIPTING LANGUAGE

4.1 PHP

PHP is a server-side scripting language designed primarily for web development but also used as a general-purpose programming language. Originally created by RasmusLerdorf in 1994, the PHP reference implementation is now produced by The PHP Development Team. PHP originally stood for Personal Home Page, but it now stands for the recursive acronym PHP: Hypertext Pre-processor.

PHP code may be embedded into HTML or HTML5 mark-up, or it can be used in combination with various web template systems, web content management systems and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server software combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

The PHP language evolved without a written formal specification or standard until 2014, leaving the canonical PHP interpreter as a de facto standard. Since 2014 work has gone on to create a formal PHP specification.

4.2 INSTALLING PHP

- Step 1: download the files. Download the latest PHP 5 ZIP package from www.php.net/downloads.php. ...
- Step 2: extract the files. ...
- Step 3: configure php.ini. ...
- Step 4: add C: php to the path environment variable. ...
- Step 5: configure PHP as an Apache module. ...
- Step 6: test a PHP file.
- Or we can install Xampp which have inbuilt php, MySQL, apache server

We have used XAMPP to run the php files.

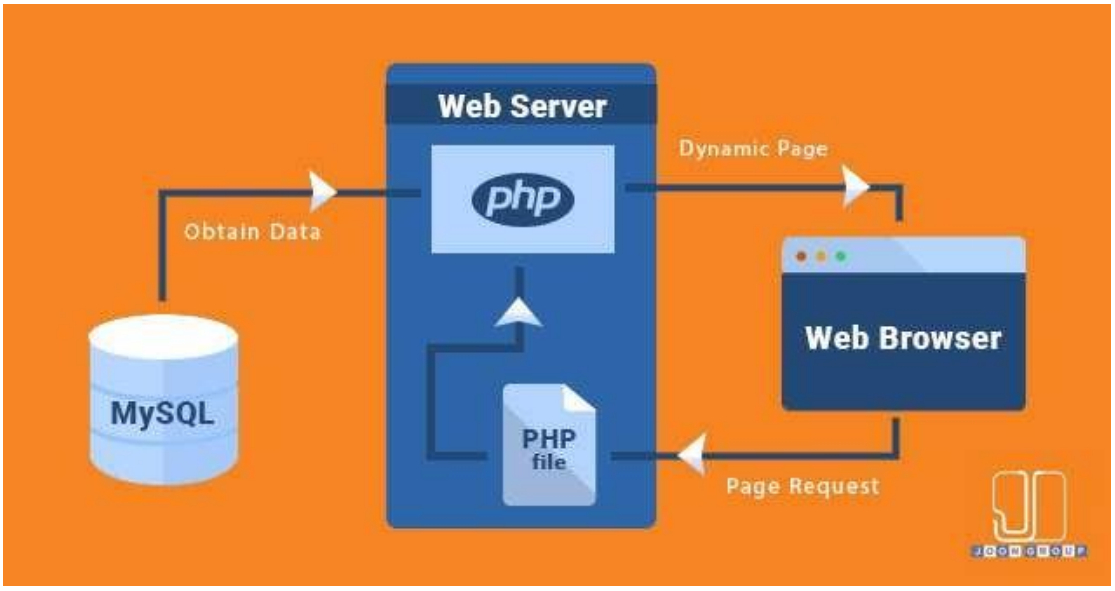


Fig 4.1 Data Flow from Server to Web Browser and vice versa

4.3 JAVASCRIPT

JavaScript, often abbreviated as "JS", is a high-level, dynamic, untyped, and interpreted run-time language. It has been standardized in the ECMAScript language specification. Alongside HTML and CSS, JavaScript is one of the three core technologies of World Wide Web content production; the majority of websites employ it, and all modern Web browsers support it without the need for plug-ins. JavaScript is prototype-based with first-class functions, making it a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles. It has an API for working with text, arrays, dates and regular expressions, but does not include any I/O, such as networking, storage, or graphics facilities, relying for these upon the host environment in which it is embedded.

Although there are strong outward similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two are distinct languages and differ greatly in their design. JavaScript was influenced by programming languages such as self and Scheme.

JavaScript is also used in environments that are not Web-based, such as PDF documents, site-specific browsers, and desktop widgets. Newer and faster JavaScript virtual machines (VMs) and platforms built upon them have also increased the popularity of JavaScript for server-side Web applications. On the client side, developers have traditionally implemented JavaScript as an interpreted language, but more recent browsers perform just-in-time compilation. Programmers also use JavaScript in video-game development, in crafting desktop and mobile applications, and in server-side network programming with run-time environments such as Node.js.

4.4 JQUERY

jQuery is a cross-platform JavaScript library designed to simplify the client-side scripting of HTML. It is free, open-source software using the permissive MIT license. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin.

jQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, themeable widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications.

The set of jQuery core features—DOM element selections, traversal and manipulation—enabled by its selector engine (named "Sizzle" from v1.3), created a new "programming style", fusing algorithms and

DOM data structures. This style influenced the architecture of other JavaScript frameworks like YUI v3 and Dojo, later stimulating the creation of the standard Selectors API.
Microsoft and Nokia bundle jQuery on their platforms. Microsoft includes it with Visual Studio for use within Microsoft's ASP.NET AJAX and ASP.NET MVC frameworks while Nokia has integrated it into the Web Run-Time widget development platform.

4.5 AJAX

Ajax (also **AJAX** short for "asynchronous JavaScript and XML") is a set of Web development techniques using many Web technologies on the client side to create asynchronous Web applications. With Ajax, Web applications can send data to and retrieve from a server asynchronously (in the background) without interfering with the display and behaviour of the existing page. By decoupling the data interchange layer from the presentation layer, Ajax allows for Web pages, and by extension Web applications, to change content dynamically without the need to reload the entire page. In practice, modern implementations commonly substitute JSON for XML due to the advantages of being native to JavaScript.
Ajax is not a single technology, but rather a group of technologies. HTML and CSS can be used in combination to mark up and style information. The DOM is accessed with JavaScript to dynamically display – and allow the user to interact with – the information presented. JavaScript and the XMLHttpRequest object provide a method for exchanging data asynchronously between browser and server to avoid full page reloads.

4.6 JSON

In computing, JavaScript Object Notation or JSON (/ˈdʒeɪsən/JAY-sən), is an open standard file format that uses human-readable text to transmit data objects consisting of attribute–value pairs and array data types (or any other serializable value). It is a very common data format used for asynchronous browser/server communication, including as a replacement for XML in some AJAX-style systems.
JSON is a language-independent data format. It was derived from JavaScript, but as of 2017 many programming languages include code to generate and parse JSON-format data. The official Internet media type for JSON is application/json. JSON filenames use the extension .json.
Douglas Crockford originally specified the JSON format in the early 2000s; two competing standards, RFC 7159 and ECMA-404, defined it in 2013. The ECMA standard describes only the allowed syntax, whereas the RFC covers some security and interoperability considerations.
A restricted profile of JSON, known as **I-JSON** (short for "Internet JSON"), seeks to overcome some of the interoperability problems with JSON. It is defined in RFC 7493.

4.7 XAMPP

XAMPP is a free and open-source cross platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (MariaDB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server extremely easy as well.

4.8 FEATURES

XAMPP is regularly updated to the latest releases of Apache, MariaDB, PHP and Perl. It also comes with a number of other modules including OpenSSL, phpMyAdmin, MediaWiki, Joomla, WordPress and more. Self-contained, multiple instances of XAMPP can exist on a single computer, and any given instance can be copied from one computer to another. XAMPP is offered in both a full and a standard version (Smaller version).

4.9 USAGE

Officially, XAMPP's designers intended it for use only as a development tool, to allow website designers and programmers to test their work on their own computers without any access to the Internet. To make this as easy as possible, many important security features are disabled by default. XAMPP has the ability to serve web pages on the World Wide Web. A special tool is provided to password-protect the most important parts of the package.

XAMPP also provides support for creating and manipulating databases in MariaDB and SQLite among others. Once XAMPP is installed, it is possible to treat a localhost like a remote host by connecting using an FTP client. Using a program like FileZilla has many advantages when installing a content management system (CMS) like Joomla or WordPress. It is also possible to connect to localhost via FTP with an HTML editor.

CHAPTER 5: SOFTWARE REQUIREMENT SPECIFICATION

5.1 HARDWARE REQUIREMENT

Processor	Intel CORE i5
RAM	4.0 GB
Hard Disk Drive	500 GB

5.2 SOFTWARE REQUIREMENT

Number	Description
1	Windows 7,8,10
2	HTML/CSS/Ajax/JavaScript/ Bootstrap.
3	Apache server/ XAMPSERVER
4	PHP 5.5.38
5	MySQL
6	Compiler: MSVC11 (Visual C++ 2012)
7	Apache version: Apache/2.4.23 (Win32) OpenSSL/1.0.2h PHP/5.5.38

CHAPTER 6: PROJECT

6.1 PROJECT (Advanced Technologies):

Name: News Portal

6.2 TOOLS USED:

- HTML
- CSS
- Bootstrap
- Core PHP
- Java Script
- jQuery
- AJAX

Server: Apache (XAMPP)
Database: MySQL
Operating System: Windows7/8/8.1/10
Wire framing tool: Balsamiq
Team Size: 4

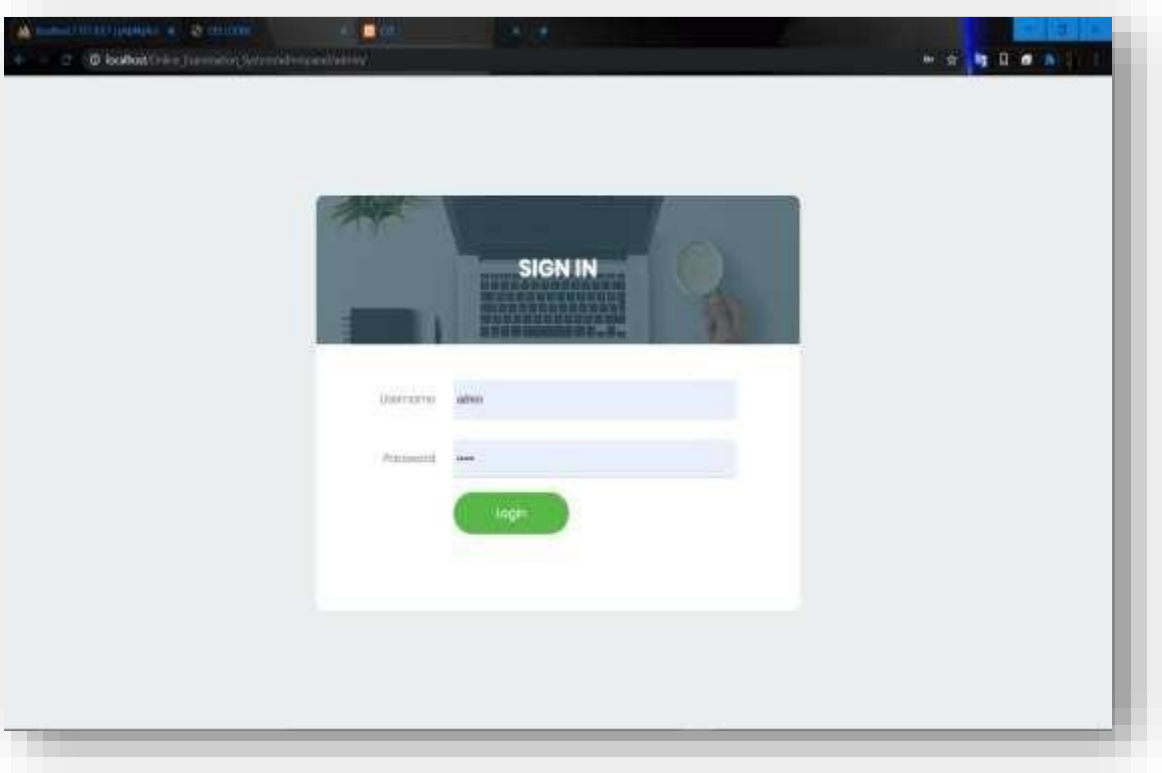
6.3 TECHNICAL DETAILS:

- Front end is designed using HTML, CSS and Bootstrap. Ajax used to perform behind the screen requests and JavaScript used to perform client-side scripting
- Backend is based on PHP + MySQL based RDB (Relational Data Base) model.
- The SQL queries are run using the CI SQL library functions
- Backend online host includes a centralized database resident on the server, the script which is built in PHP used to SQL query the database on user's request for transaction of data
- The forms are made using the HTML, Bootstrap for designing and Php, sql for back-end
- JavaScript, AJAX and jQuery used for client-side scripting and PHP for the server-side development

CHAPTER 7: VIEWS OF NEWS PORTAL

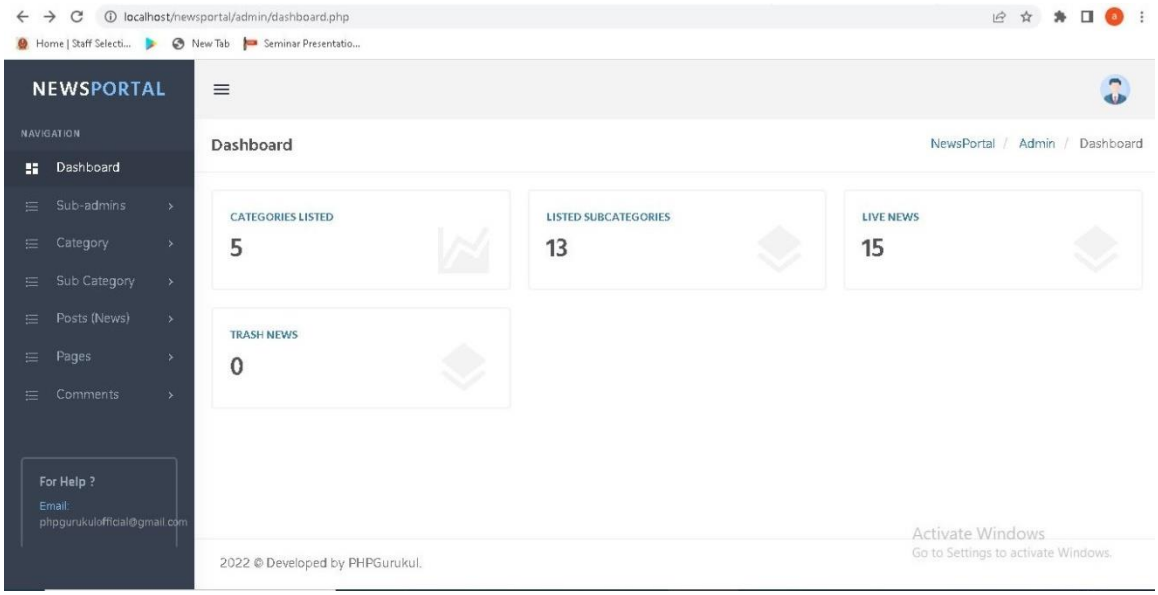
HOME PAGE

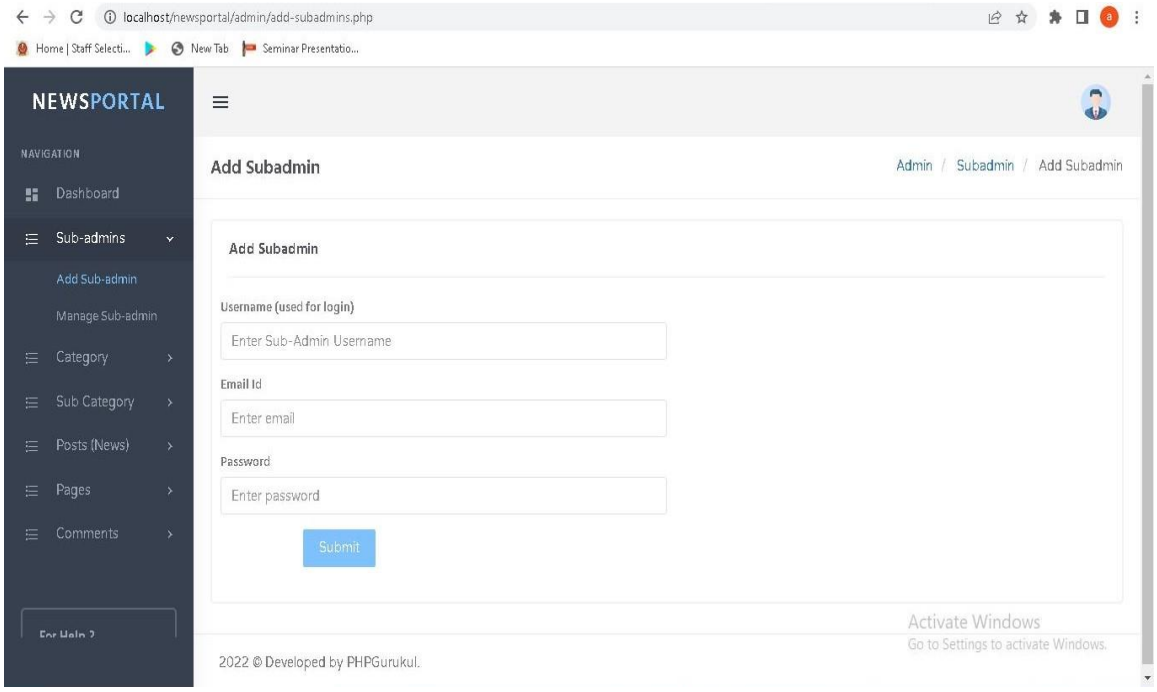
Admin Login Page



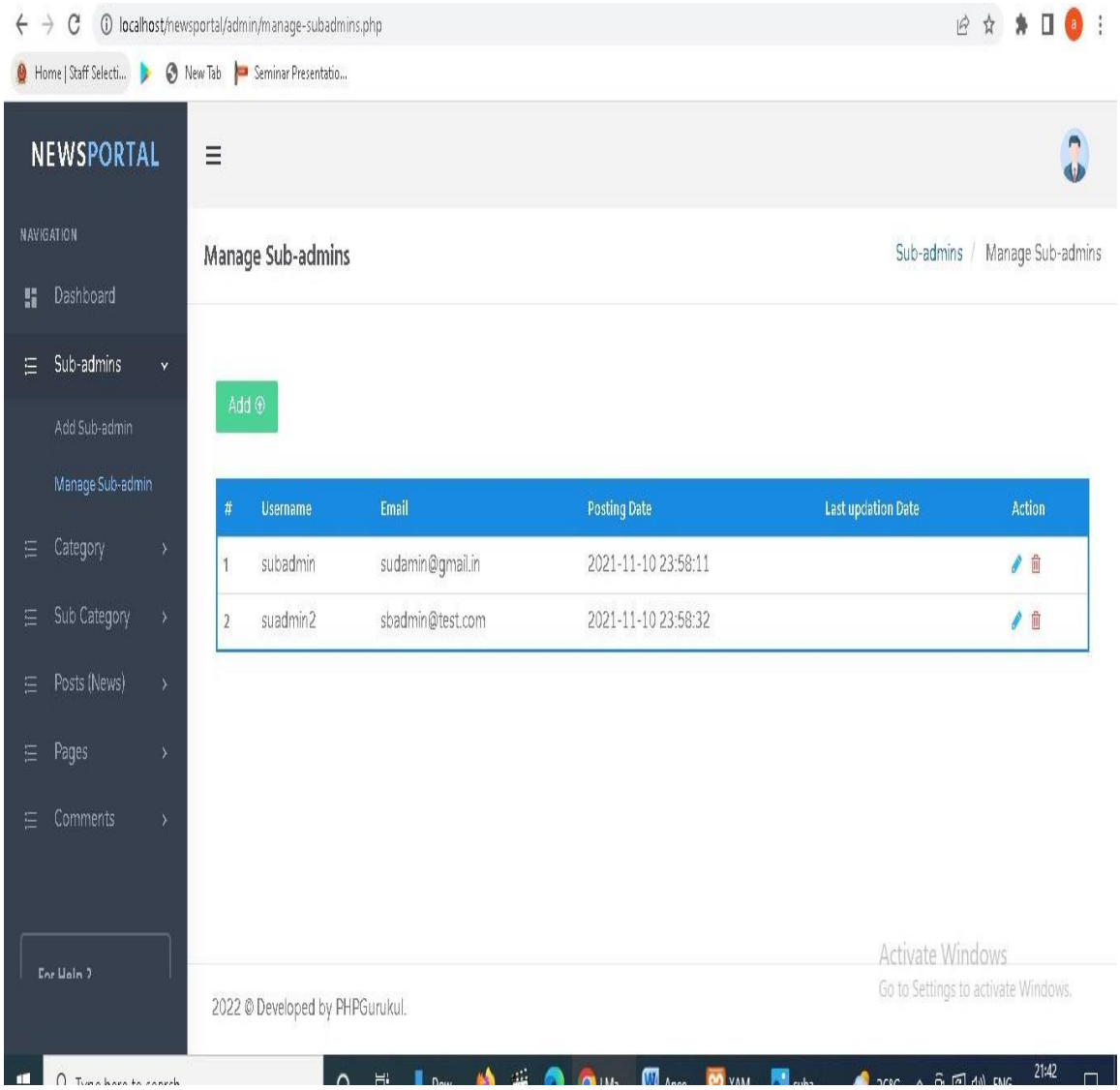
Admin Change Password Panel

Dashboard



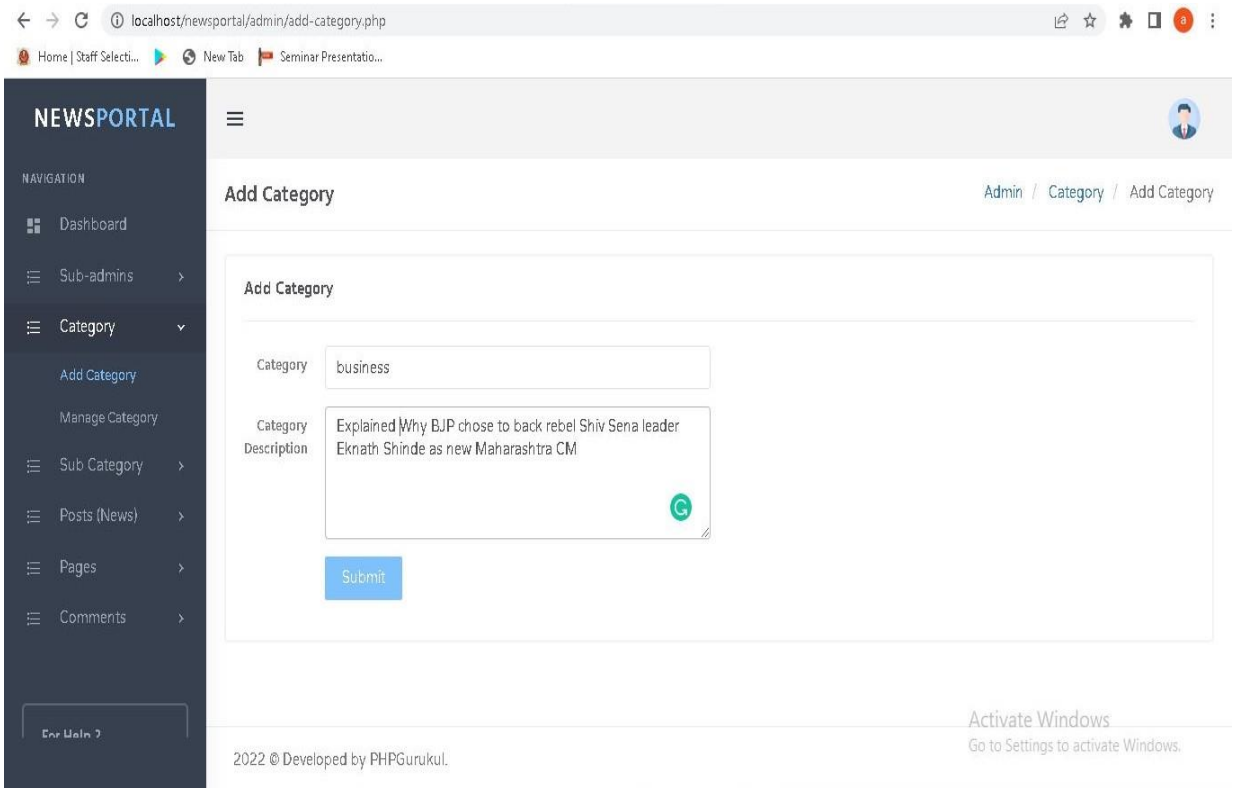


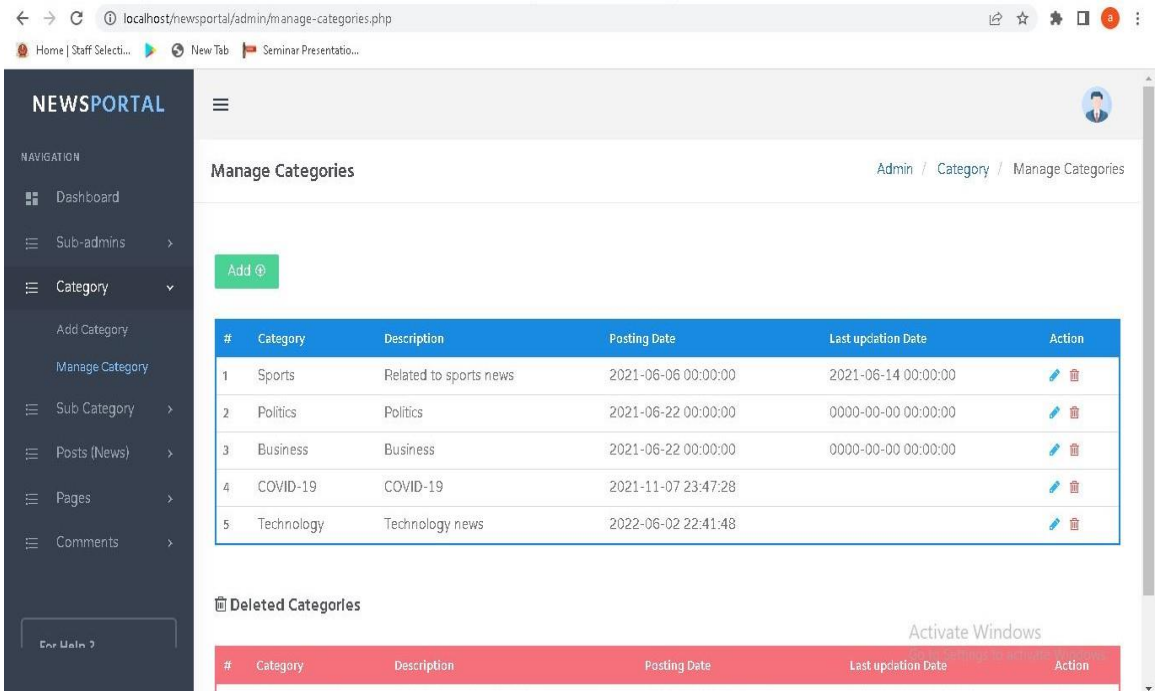
Subadmin Page



Manage Sub-admins page

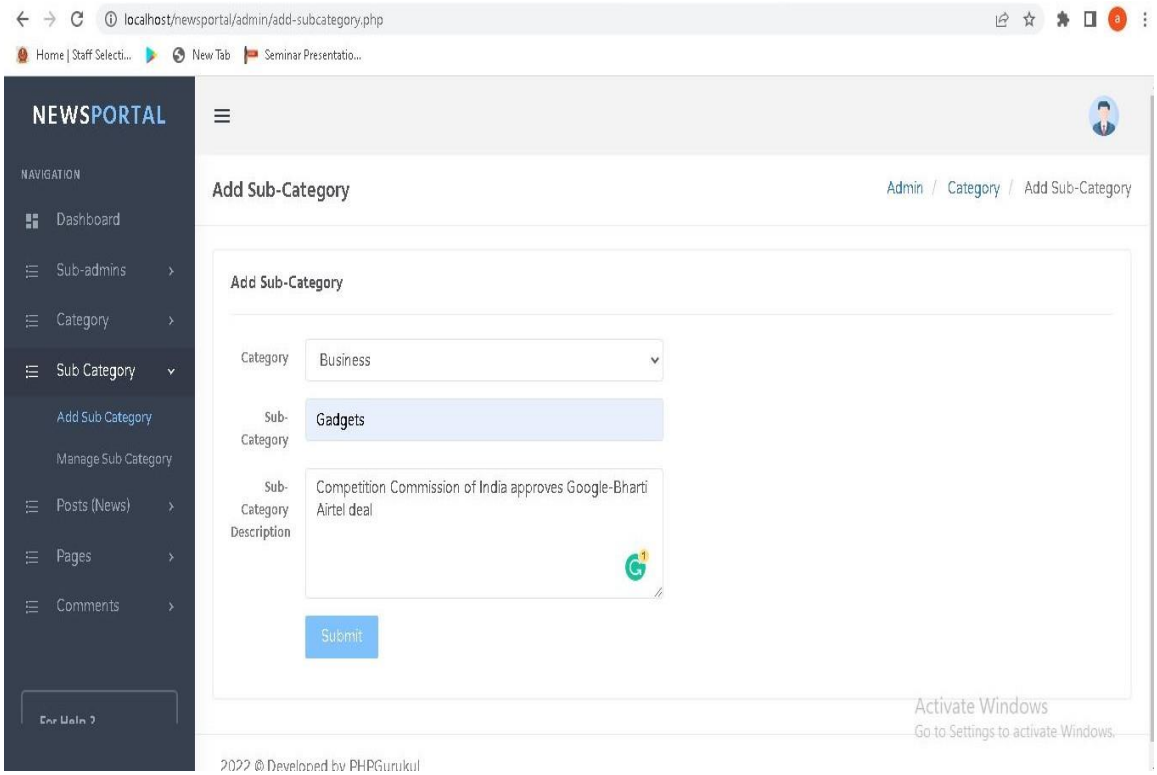
CATEGORY PAGE

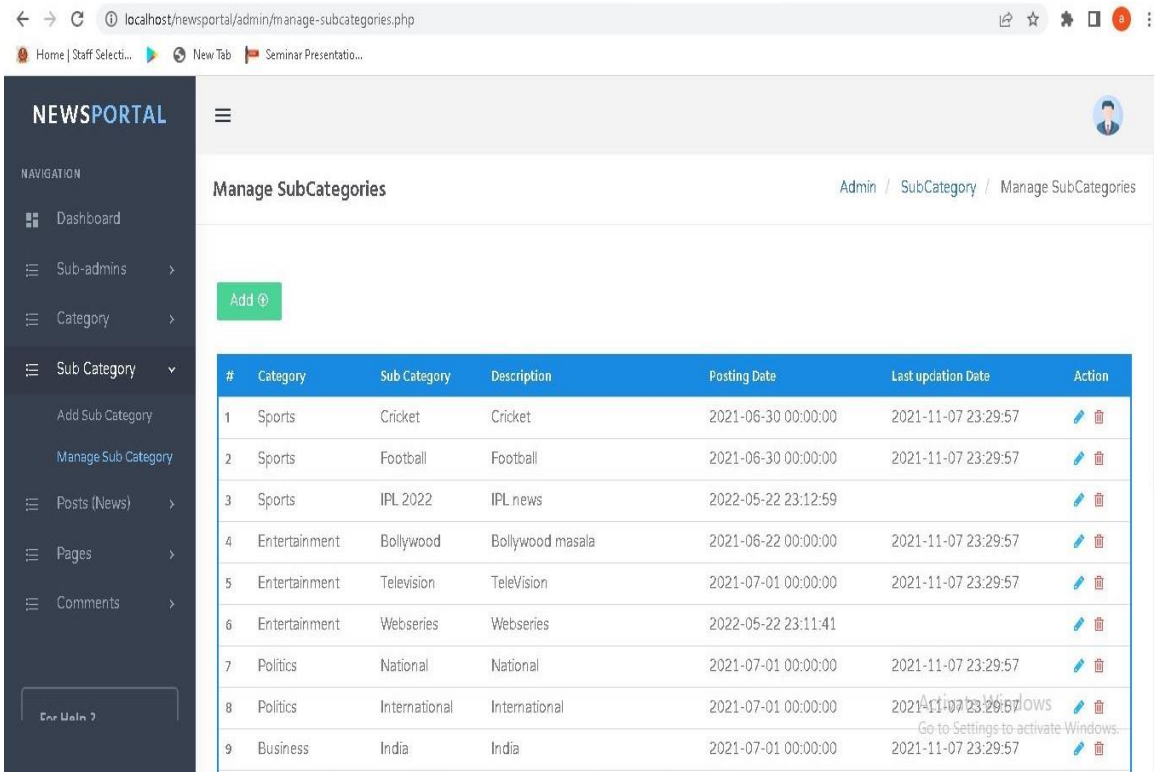




Manage Category

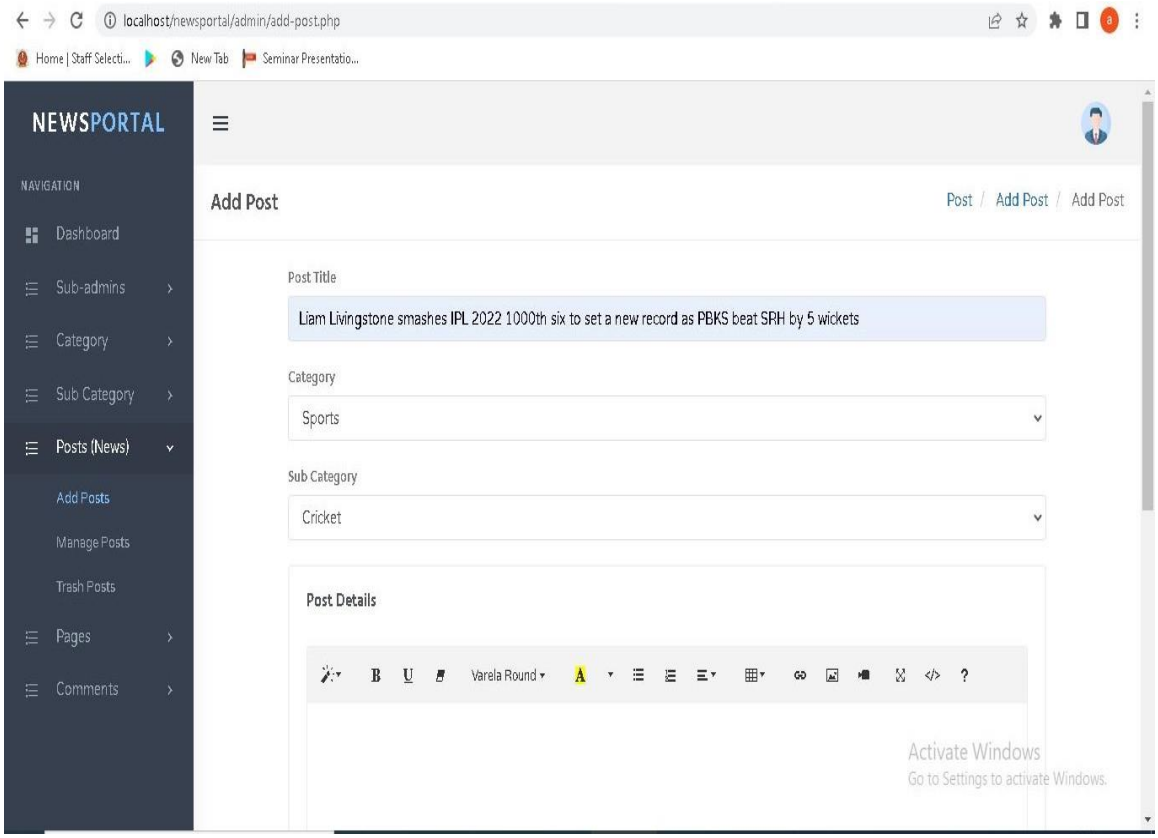
Sub Category

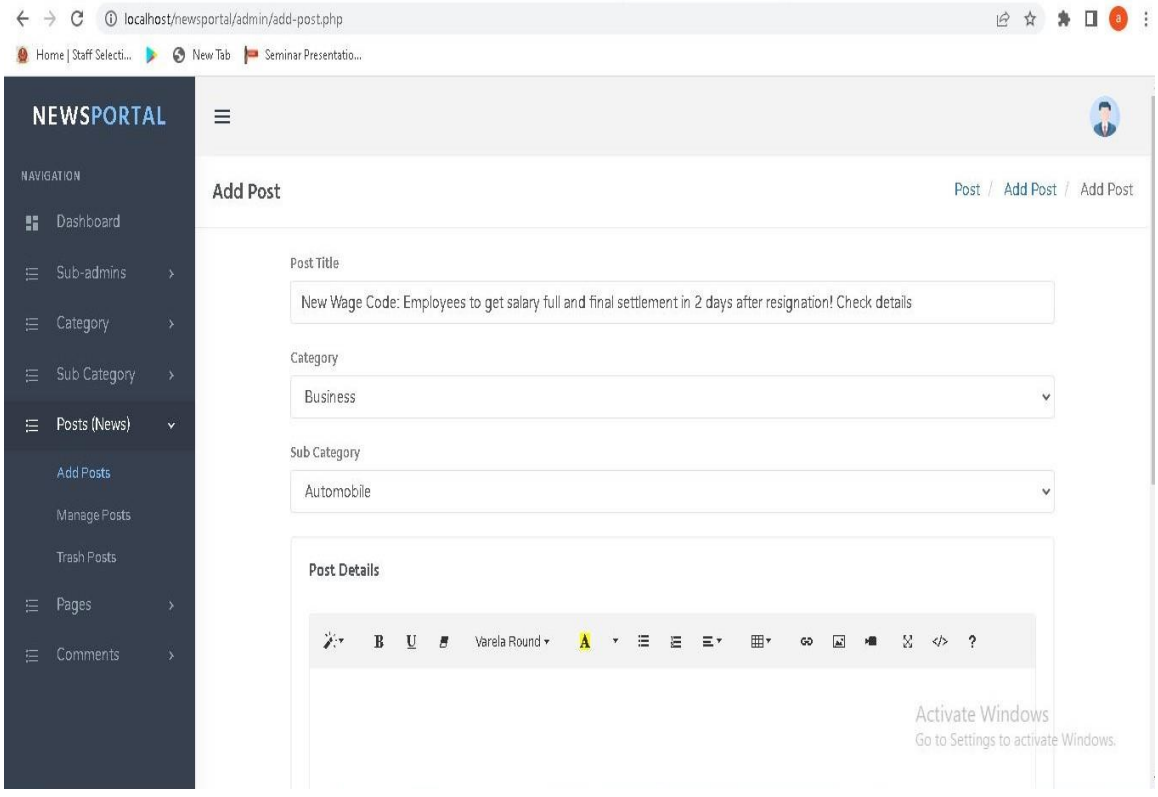




Manage Sub-Category

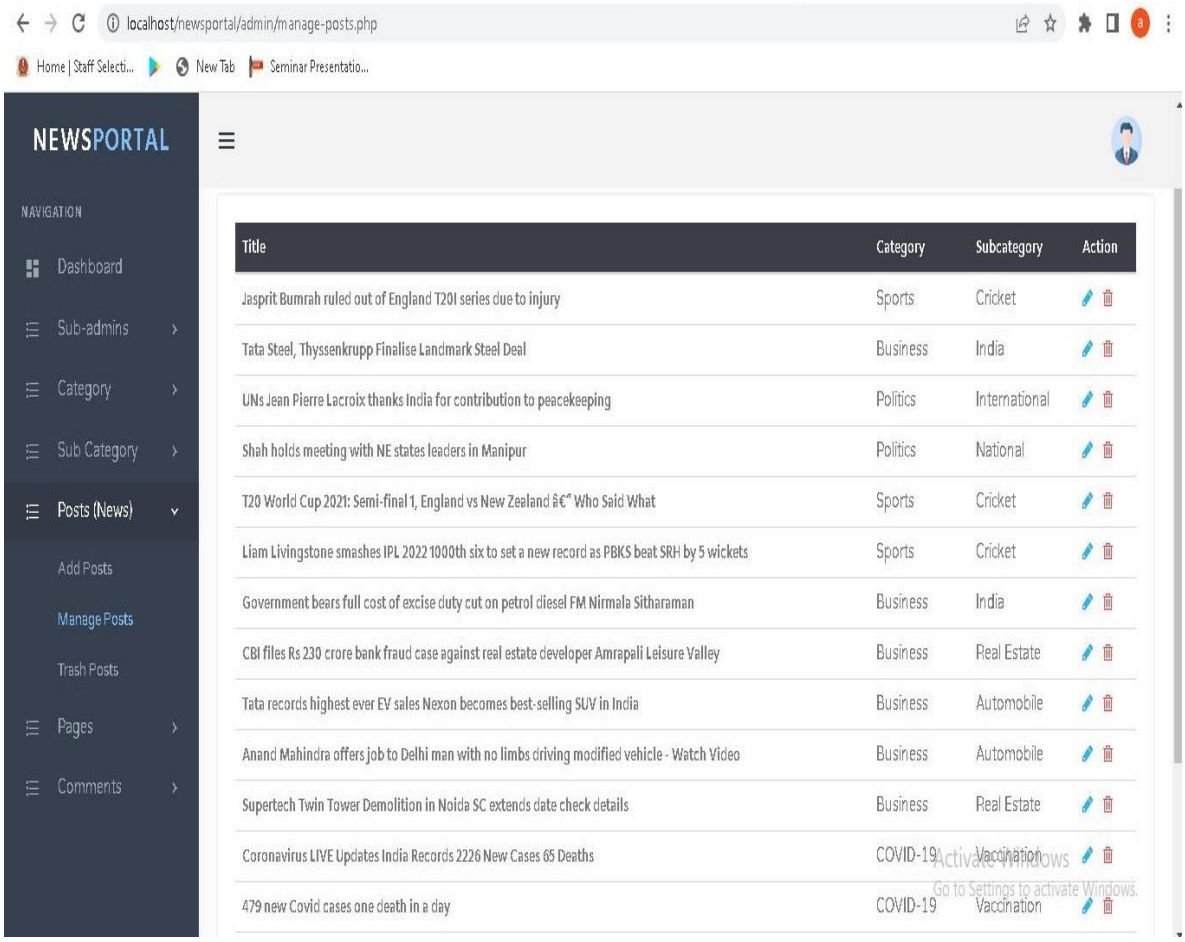
Post News



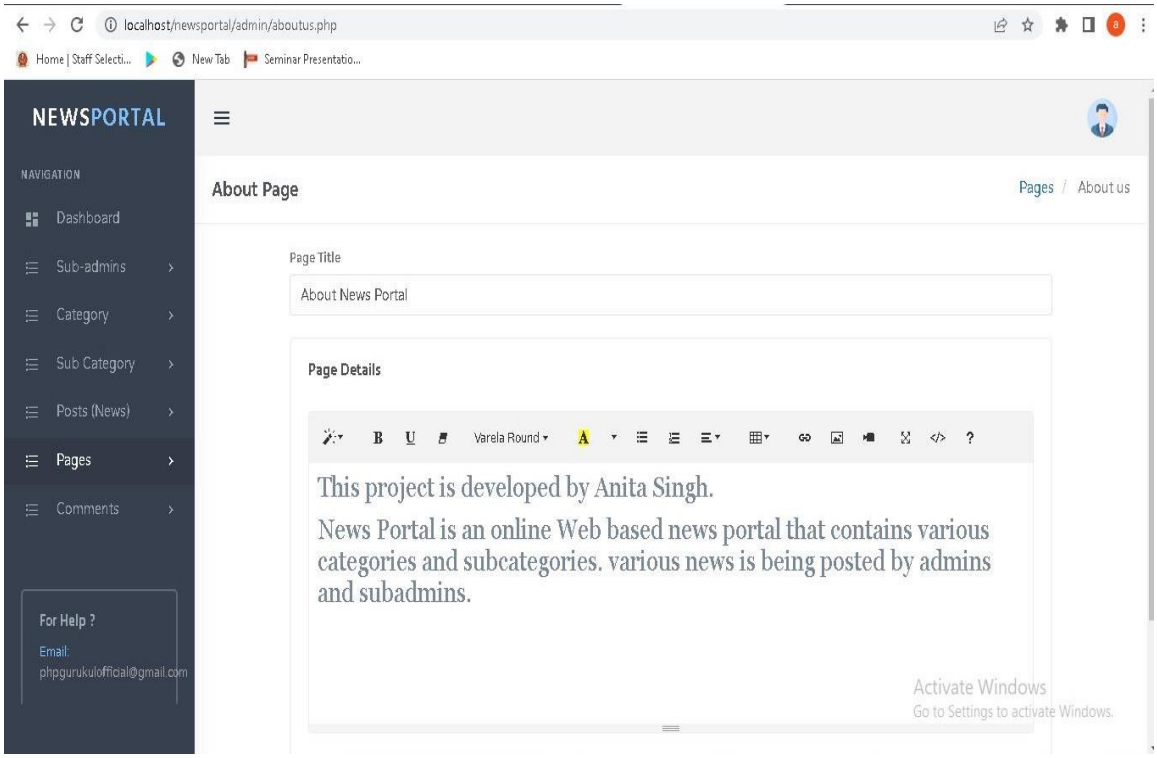


Add Post

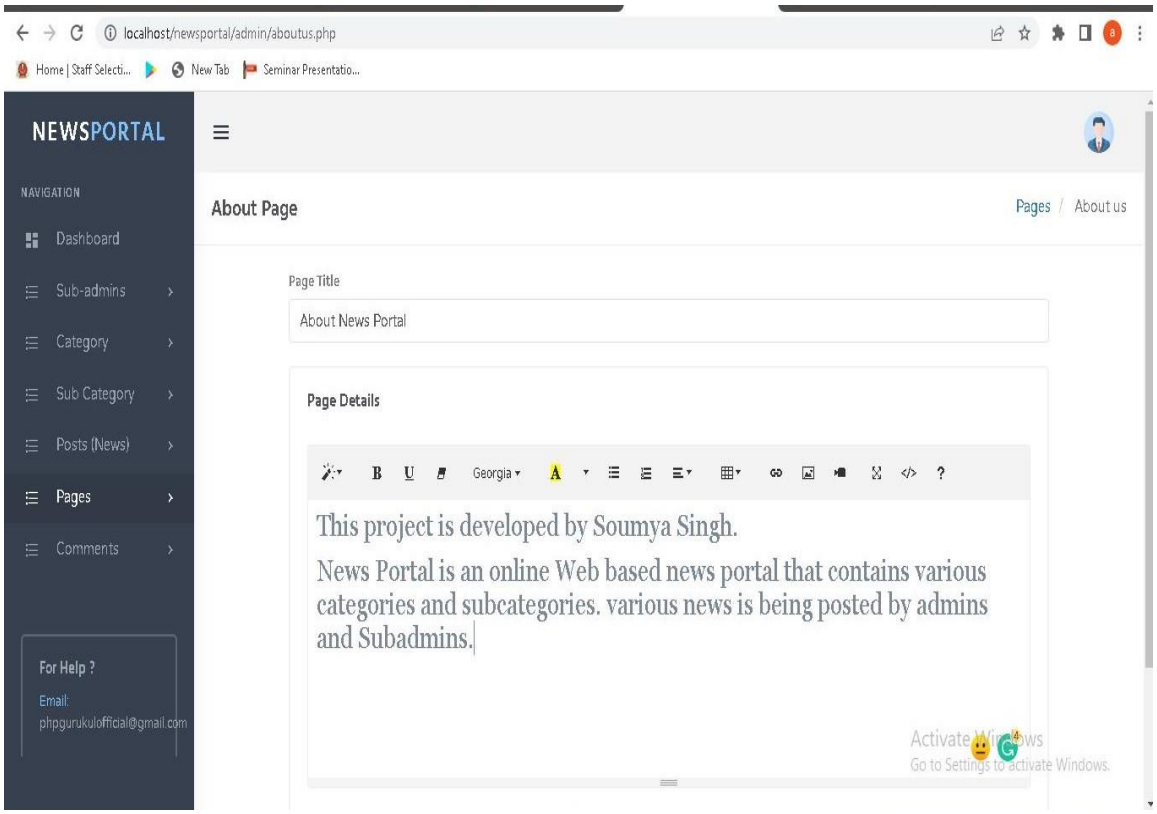
Manage Post



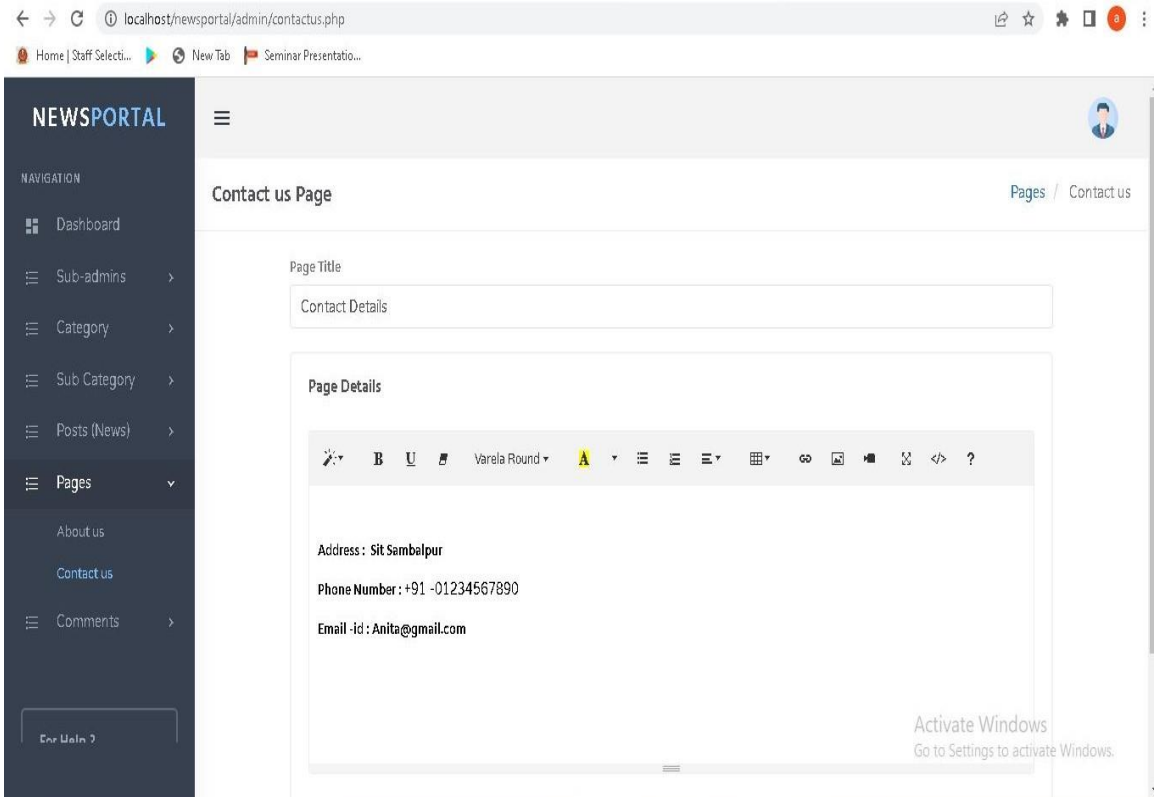
Pages



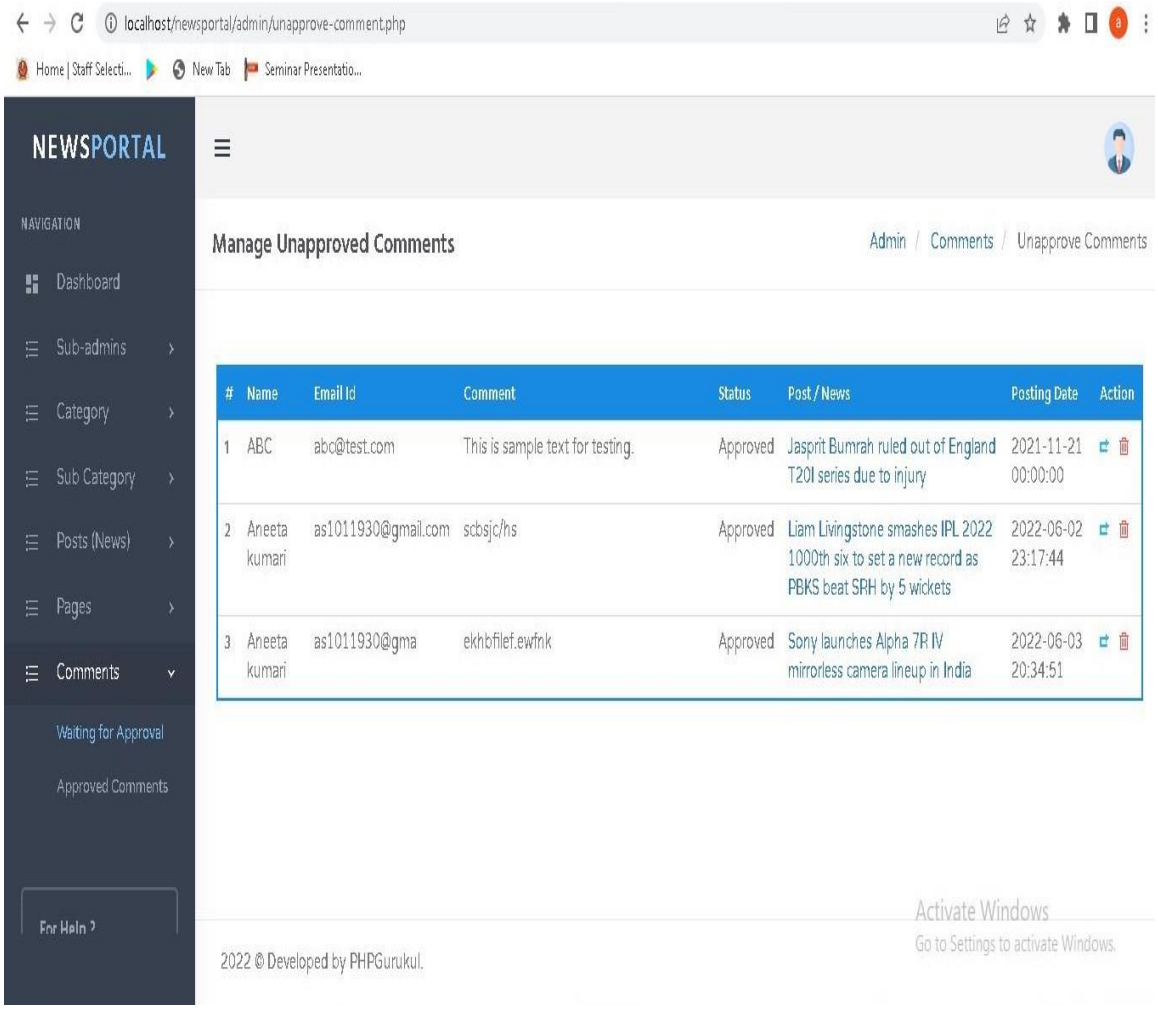
About Pages



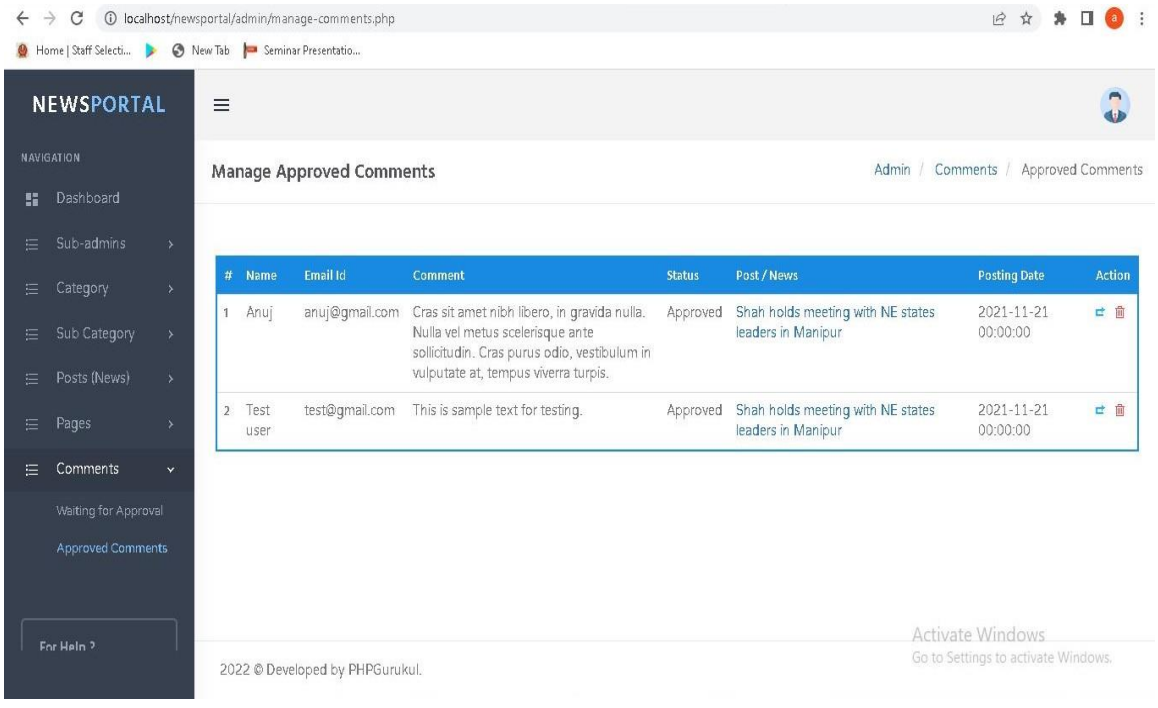
Contact Us Page



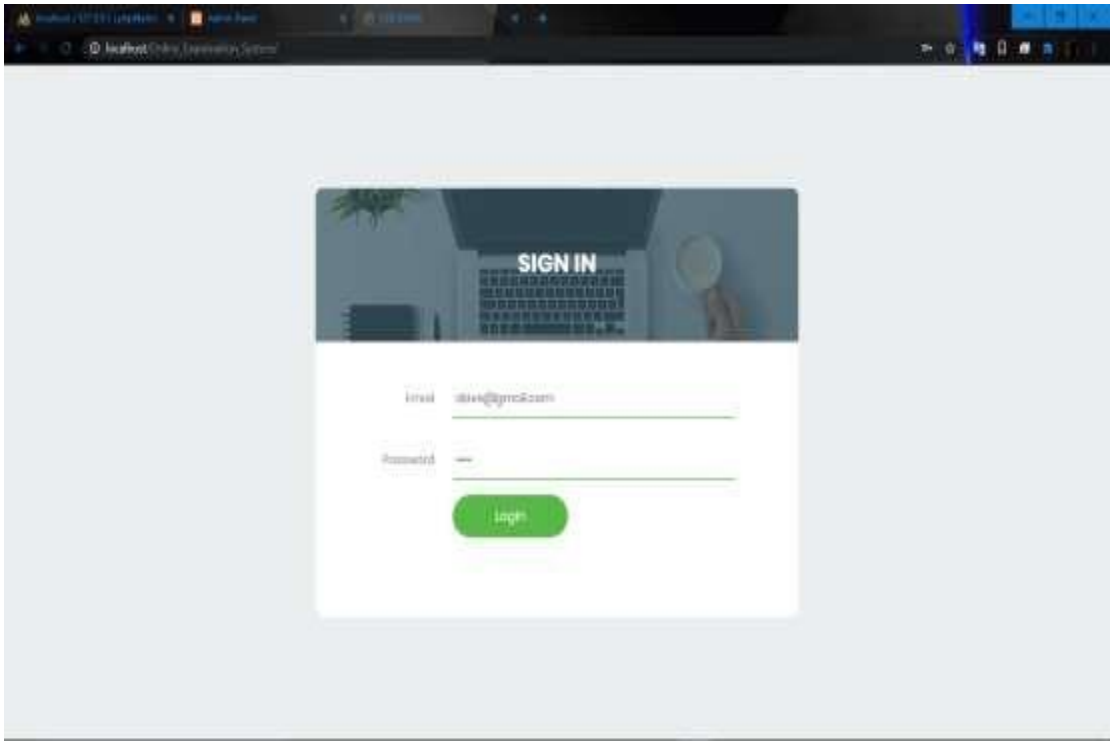
Manage Unapproved Comments



Manage Approved Comments



Home Page



Log in Page at News Portal

Pagination With News

News With Category

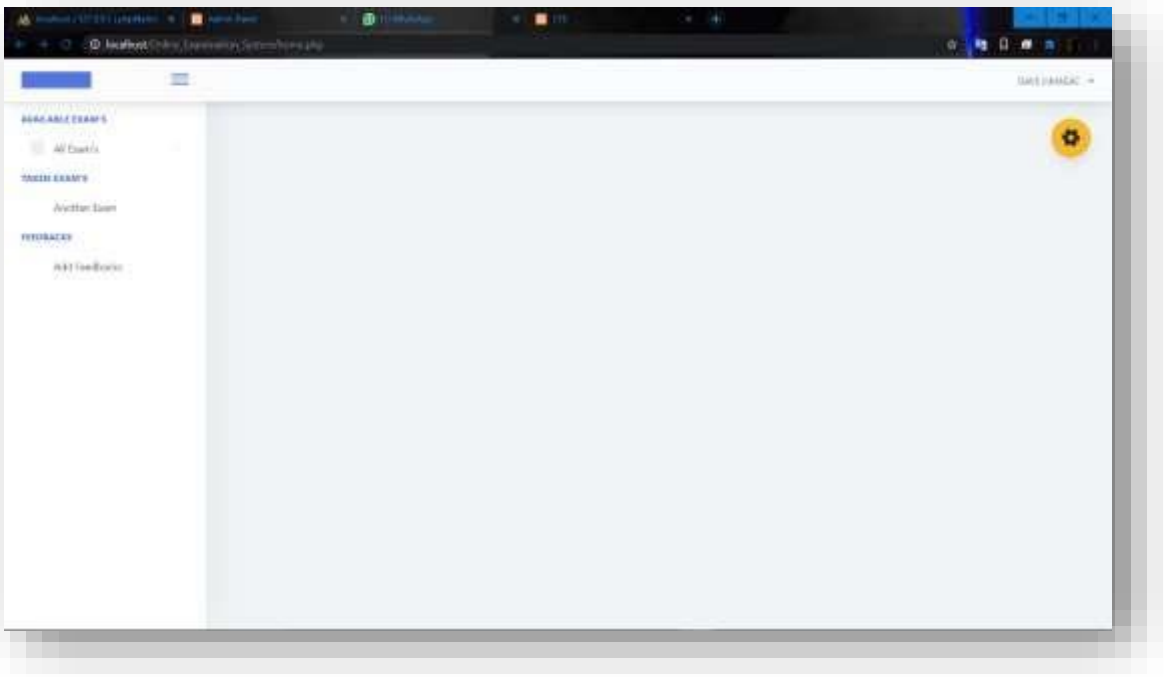
User's Panel

Manage Users

10 records per page Search:

Full Name	User Name	Email	Activation Status	Actions
Abdur Rahman	Rahman	rahman@gmail.com	Published	
First User Name	First User	user1@gmail.com	Published	
Fourth User Name	Fourth User	user4@gmail.com	Published	
Rajib Kumar Roy	Rajib Roy	rajib@gmail.com	Published	
Sagor Kumar Das	Sagor Das	sagor@gmail.com	Published	
Sajib Kumar Roy	Sajib Roy	sajib@gmail.com	Unpublished	
Second User Name	Second User	user2@gmail.com	Published	
Sohel Gazi	Sohel	sohel_gazi@gmail.com	Published	
Third User Name	Third User	user3@gmail.com	Published	

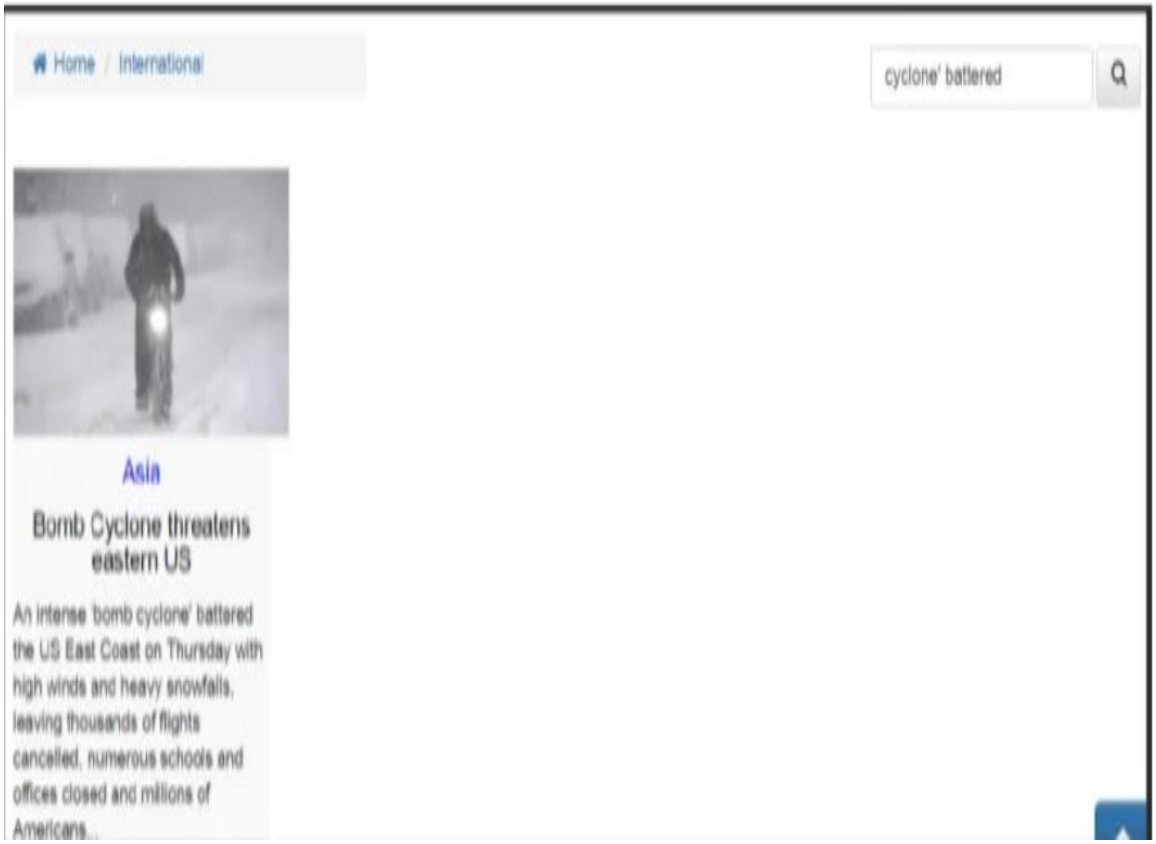
Portal-Side View



Comment Box

Popular News Section

Search News



CHAPTER 8: DATA FLOW DIAGRAM

Data Flow Diagrams show the flow of data from external entities into the system, and from one process to another within the system. There are four symbols for drawing a DFD:

- Rectangles representing external entities, which are sources or destinations of data.
- Ellipses representing processes, which take data as input, validate and process it and output it.
- Arrows representing the data flows, which can either, be electronic data or physical items.
- Open-ended rectangles or a Disk symbol representing data stores, including electronic stores such as databases or XML files and physical stores such as filing cabinets or stacks of paper.

Figures below are the Data Flow Diagrams for the current system. Each process within the system is first shown as a Context Level DFD and later as a Detailed DFD. The Context Level DFD provides a conceptual view of the process and its surrounding input, output and data stores. The Detailed DFD provides a more detailed and comprehensive view of the interaction among the sub-processes within the system.

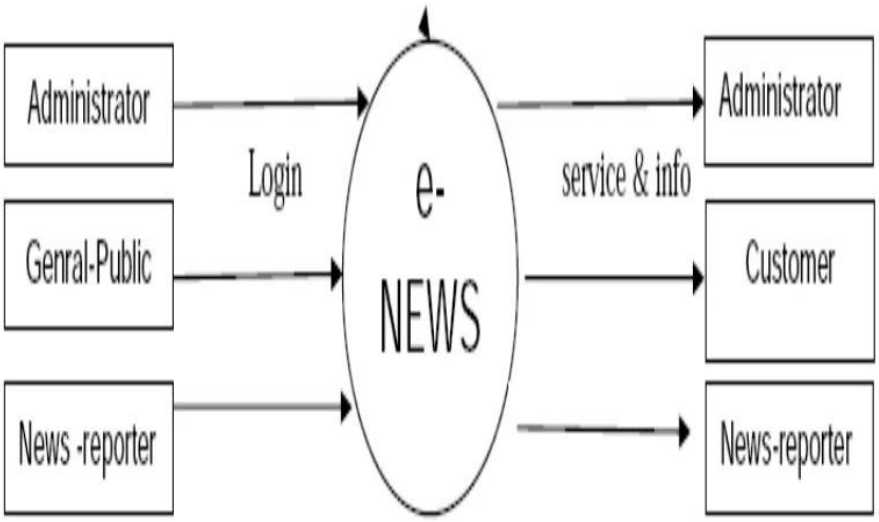


Fig 8.1 Context level Diagram

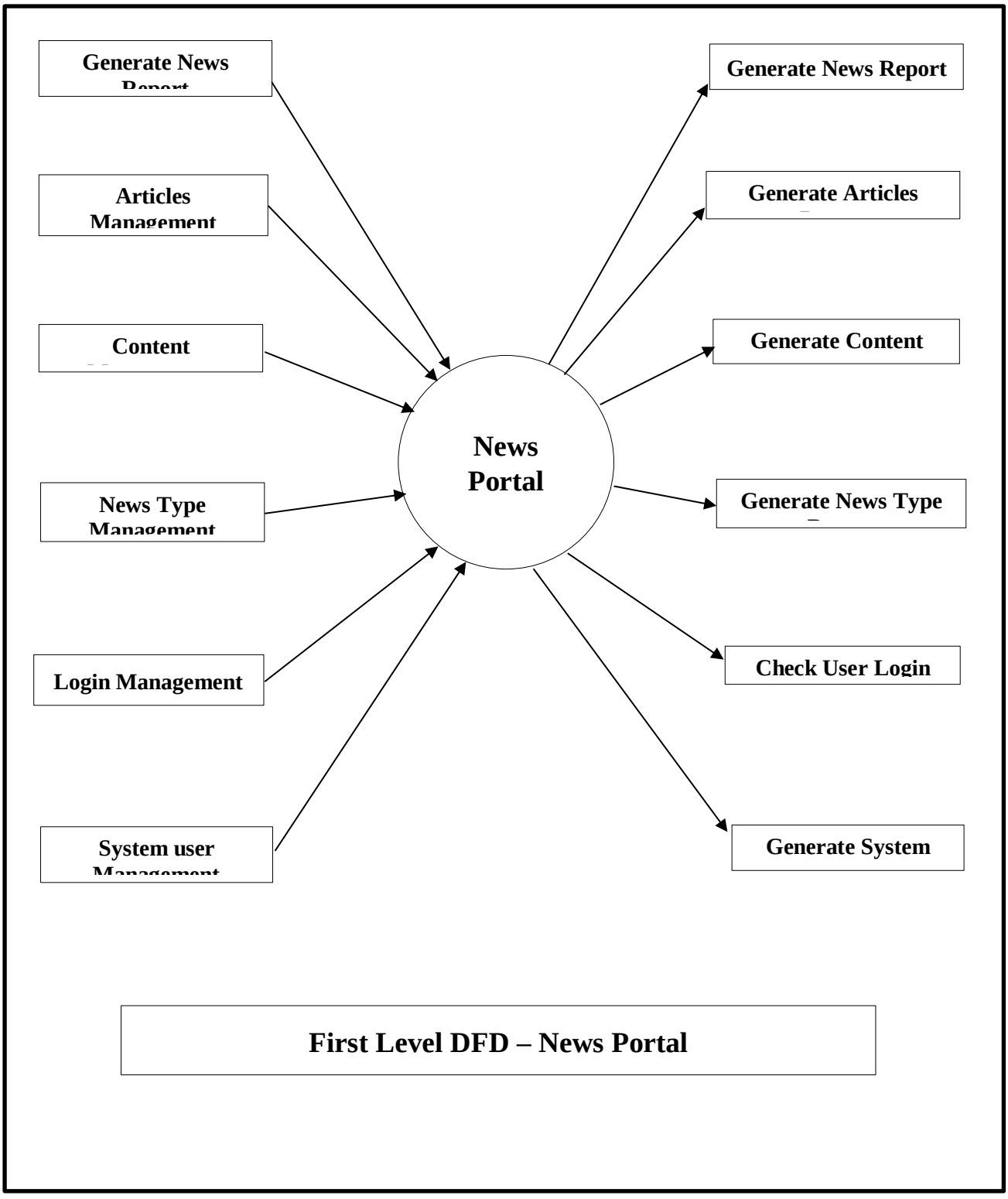


Fig 8.2 First Level DFD

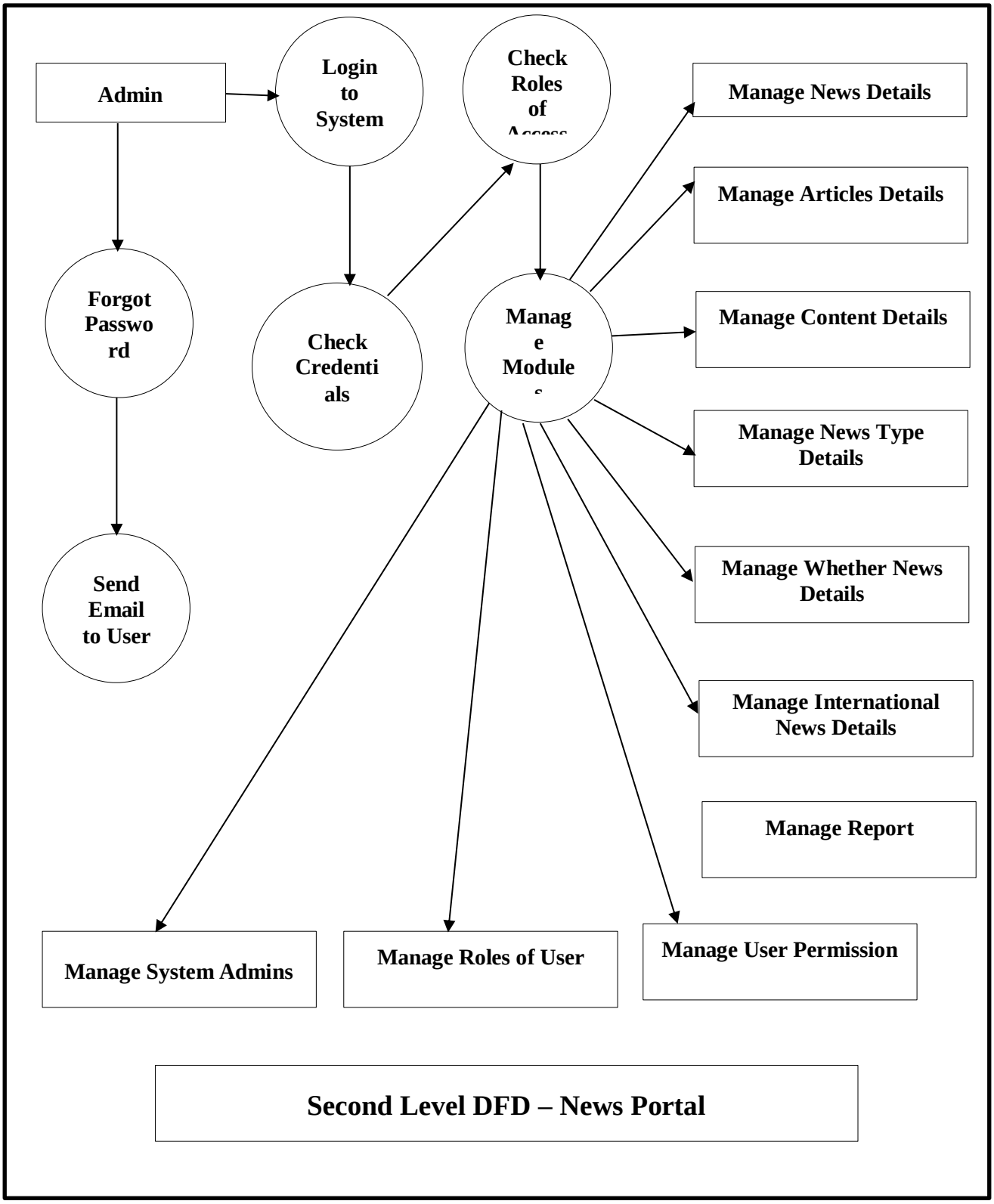


Fig 8.3 Second Level DFD

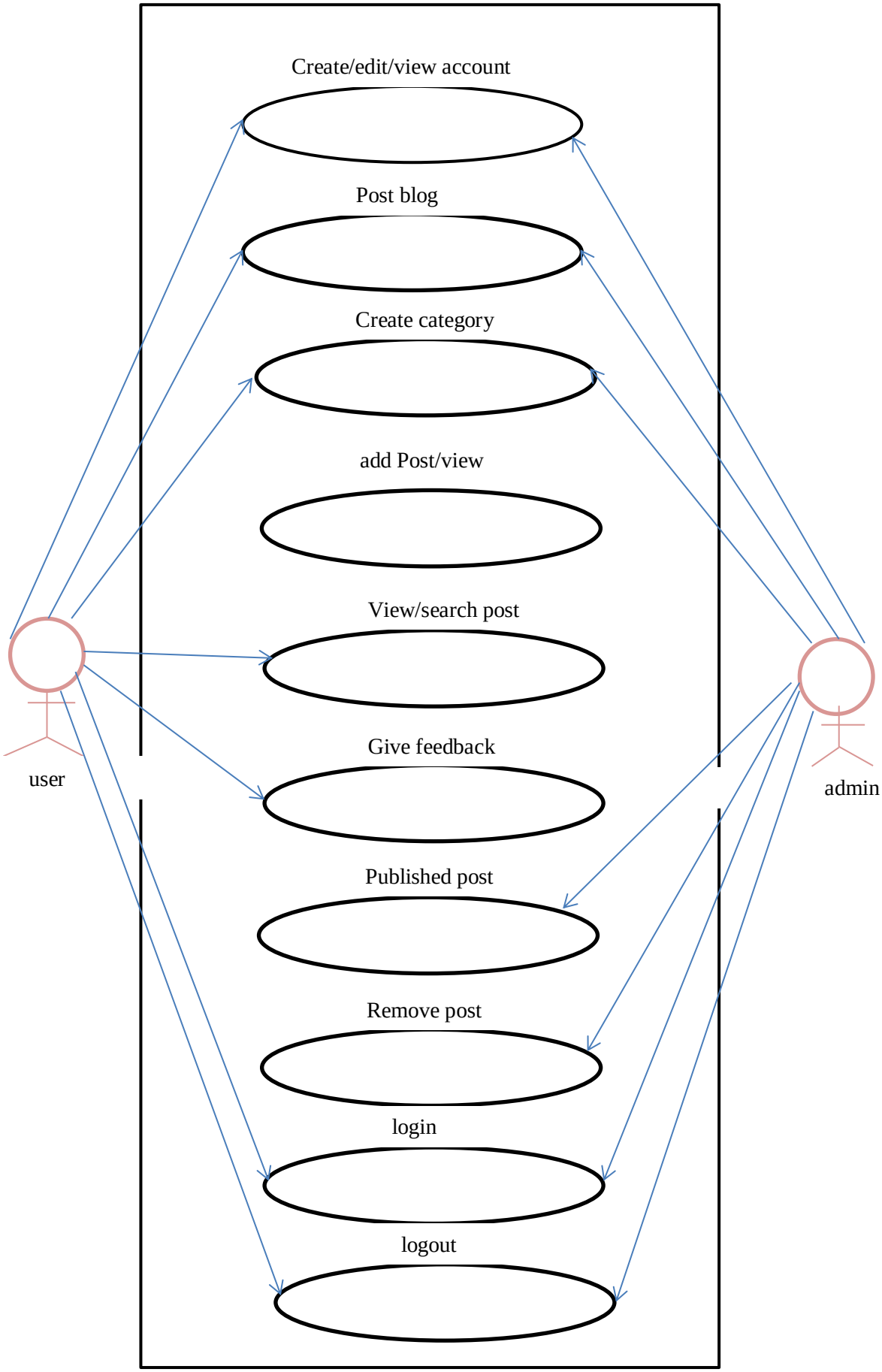


Fig 8.4 usecase diagram

CHAPTER 9: FUTURE SCOPE AND FUTURE

ENHANCEMENT

The main Contribution of this work is to present a comprehensive framework for news portal. While we have achieved good performance in our evaluation, our framework can certainly be improved in number of ways.

It may help collecting perfect management in details. In a very short time, the collections will be obvious, simple and sensible, it will help a person to know the management of passed year perfectly and vividly, It also help in current all works relative to online News Portal, It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

For the basic components, we can either apply more advanced algorithms for each component such as:

- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
- To assist the staff in capturing the effort spent on their respective working areas.
- To utilize resources in an efficient manner by increasing their productivity through automations.
- The system generates types of information that can be used for various purposes.
- It satisfy the user requirement.
- Be easy to understand by the user and operator.
- Be easy to operate.
- Have a good user interface.
- Be expandable.
- Delivered on schedule within the budget.

CHAPTER 10: CONCLUSION

Our project is only a humble venture to satisfy the needs to manage their project work. Several user-friendly coding has also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

.

Fig 10.1 Online news portal

<u>At the end it is concluded that we have made effort on following points...</u>

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project
- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts.

CHAPTER 11: LIMITATION OF THE PROJECT

Although I have put my best efforts to make the software flexible, easy to operate but limitations cannot be ruled out even by me. Though the software presents a broad range of options to its users some intricate options could not be covered into it partly because of logistic and partly due to lack of sophistication. Paucity of time was also major constraint; thus, it was not possible to make the software foolproof and dynamic. Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

Considerable efforts have made the software easy to operate even for the people not related to the field of computers but it is acknowledged that a layman may find it a bit problematic at the first instance. The user is provided help at each step for his convenience in working with the software.

List of limitations which is available in the News Portal:

- Excel export has not been developed for News; News Category due to some criticality.
- The transactions are executed in off-line mode, hence on-line data for Latest News, Sports News capture and modification is not possible.
- Off-line reports of news, Weather News, Latest News cannot be generated due to batch mode execution.

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