



II Jai Sri Gurudev II
Sri Adichunchanagiri Shikshana Trust®



S J B Institute of Technology

An Autonomous Institution under VTU

#67, BGS Health & Education City, Dr. Vishnuvardhan Road, Kengeri, Bengaluru – 560060.



2024-2025

MINI PROJECT REPORT

ON

“DISCUSS BOARD ”

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF

THE DEGREE OF

MASTER OF COMPUTER APPLICATIONS

SUBMITTED BY

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1JB23MC031

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UNDER THE GUIDANCE OF

MRS. SWETHA SHRI K

Assistant Professor of MCA

A Miniproject Report on

“DISCUSS BOARD”

By

PRAJWAL B[1JB23MC031]

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Submitted To

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DEPARTMENT OF COMPUTER APPLICATIONS (MCA)



CERTIFICATE

This is to certify that **PRAJWAL B [1JB23MC031]**, **SANNIDHI B S [1JB23MC041]**, **TEJASWINI R [1JB23MC048]** bearing is a bonafide student of Master of Computer Applications course of the SJB Institute of Technology, Batch- 2023-25, affiliated to Visvesvaraya Technological University, Belagavi. A Discuss Board miniproject is prepared by him & her under the guidance of Mrs Swetha Shri K, in partial fulfilment of the requirements for the award of the degree of Master of Computer Applications of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Guide

Mrs. Swetha Shri K
ASST.PROFESSOR
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Signature of HOD

Dr. S.NAGAMANI
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Viva – voce Examination

Date:

Signature of Internal Examiner

Name and affiliation

Signature of External Examine

Name and affiliation

Declaration

We **PRAJWAL B[1JB23MC31]**, **SANNIDHI B S[1JB23MC41]**, **TEJASWINI R[1JB23MC48]** bearing hereby declare that the miniproject report entitled “**AS, DISCUSS BOARD**” prepared by me under the guidance of Mrs Swetha Shri K, faculty of MCA Department, SJB Institute of Technology and external assistance by **Shwetha Ganesh More**, Software Developer Dyashin Technosoft Pvt. Ltd., Bangalore. I, also declare that this miniproject work is towards the partial fulfilment of the university regulations for the award of degree of Master of Computer Applications by Visvesvaraya Technological University, Belagavi.

Date:

Place: Bengaluru

Signature of the students



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Regards ,
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ABSTRACT

The Discuss Board project is a dynamic web-based platform designed to enable users to ask questions and provide answers in a collaborative environment. The platform promotes interactive knowledge-sharing and problem-solving by allowing users to engage with a global community. With its user-friendly interface, robust functionality, and scalable design, the Discussion Board fosters a culture of learning and intellectual exchange.

This project is ideal for students, professionals, and individuals who seek answers to specific questions or want to contribute their expertise. The use of modern web development technologies ensures that the platform is both functional and visually appealing, catering to diverse user needs while maintaining simplicity and efficiency.

The main objective of this project is Knowledge Sharing which provide a platform for users to ask questions and receive relevant answers. Interactivity Enable features like liking answers and suggesting related questions to enhance engagement. Ease of Use for Design an intuitive interface for users of all skill levels. Learning Opportunity also help developers gain hands-on experience in web development using PHP, MySQL, and Bootstrap. Scalability Lay a foundation for advanced features like tags, search filters, and ranking systems in future iterations.

Chapter 1

INTRODUCTION

In the digital age, online communication has become an integral part of our daily lives. With the rise of social media, online communities. Platforms that allow individuals to engage in discussions have gained immense popularity. One such platform is a Discussion Board, which provides a structured space for people to interact, share knowledge, and exchange ideas on various topics. These platforms are essential for fostering communication among like-minded individuals and promoting collaborative learning, making them valuable tools for educational purposes, professional networks, and personal interest groups.

A Discussion Board typically allows users to create threads, respond to existing discussions, and even moderate conversations to ensure a safe and productive environment. It offers the convenience of asynchronous communication, where users can participate at their own pace, making it ideal for global interactions. From a technical standpoint, building a discussion board involves implementing features like user authentication, content management, real-time notifications, and data security.

The project aims to design and develop a simple, yet fully functional Discussion Board application, with core features such as user registration, post creation, commenting, and basic moderation. The goal is to create an intuitive and user-friendly platform that encourages open communication and fosters an engaging environment for users to share their thoughts and ideas. By using web development technologies such as HTML, CSS, JavaScript, and a backend framework, this project will demonstrate how modern web applications can bring together people from diverse backgrounds to communicate and collaborate effectively.

The purpose of this project is to design and implement a Discussion Board application, aimed at facilitating online communication and knowledge sharing among users. This platform allows participants to post topics, reply to discussions, and engage in meaningful conversations. The project will focus on developing key functionalities such as user authentication, posting threads, commenting, and moderating content. The goal is to create a user-friendly and scalable platform that can support a growing community of users, providing them with a space for collaborative learning and discourse. This discussion board is ideal for various use cases, including educational forums, hobbyist communities, or workplace discussions.

Chapter 2

SYSTEM ANALYSIS

The Discussion Board platform aims to create an online space for users to share ideas, ask questions, and engage in discussions. The system will feature user authentication thread creation, commenting, and content moderation, ensuring a structured and secure environment. The goal is to provide an intuitive, scalable, and secure platform for community-driven conversations.

2.1 PROPOSED SYSTEM

The proposed system is a web-based Discussion Board Platform designed to facilitate open discussions where users can post questions, provide answers, and engage in meaningful conversations. This platform aims to create a simple yet efficient virtual community where individuals can seek solutions, share knowledge, and interact seamlessly.

Users will be able to sign up and log in, ensuring a personalized experience while maintaining the integrity of discussions. The core functionality includes posting questions and replying to others' queries, allowing for an interactive and collaborative environment. To enhance usability, the platform will feature search and filtering options, enabling users to quickly find the latest or most relevant discussions.

Designed to be intuitive and user-friendly, this discussion board eliminates complex moderation roles and focuses on direct user-to-user interaction. By providing a streamlined experience, the system will encourage knowledge exchange and make discussions more accessible to everyone.

2.2 SCOPE OF THE PROJECT

This project will develop a Discussion Board platform where users can post and interact with threads and comments, fostering community-driven discussions. Admins and moderators will have the ability to manage content, ensuring a safe and organized environment. The platform will feature search and filtering capabilities, allowing users to easily find relevant topics, and will send notifications for updates, replies, and mentions to keep users engaged. Designed to be web-based, secure, and scalable, the platform will prioritize user experience and performance. However, advanced features such as private messaging and external integrations are not included in the current scope of the project.

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2.3 AIM OF THE PROJECT

The aim of this project is to create an accessible platform that facilitates engaging discussions and enables users to share knowledge in a secure, organized environment. The platform will feature a user-friendly interface, ensuring ease of interaction for all participants. Security will be prioritized through encrypted data and role-based access controls, while the system will be designed to scale and accommodate future growth. Ultimately, the goal is to develop a fully functional, interactive, and secure discussion platform that fosters collaboration, communication, and meaningful exchanges among users.

Chapter 3

REQUIREMENTS SPECIFICATION

3.1 Details of Software

3.1.1 Hypertext Markup Language



HTML is a computer language devised to allow website creation. These websites can then be viewed by anyone else connected to the Internet. It is relatively easy to learn, with the basics being accessible to most people in one sitting; and quite powerful in what it allows you to create. HTML is the standard markup language for creating Web pages. It stands for Hyper Text Markup Language. It describes the structure of a Web page. It consists of a series of elements. It elements tell the browser how to display the content. It elements are represented by tags. HTML tags label pieces of content such as "heading", "paragraph", "table", and so on. Browsers do not display the HTML tags, but use them to render the content of the page.

Features of HTML

- It is easy to learn and easy to use.
- It is platform-independent.
- Images, videos, and audio can be added to a web page.
- Hypertext can be added to the text.
- It is a markup language.
- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content

DISCUSS BOARD

- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc

"Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the Web. By uploading content to the Internet and linking it to pages created by other people, you become an active participant in the World Wide Web.

3.1.2 Cross Side Scripting

Cascading Style Sheets, fondly referred to as CSS, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. It describes how a webpage should look: it prescribes colors, fonts, spacing, and much more. In short, you can make your website look however you want. CSS lets developers and designers define how it behaves, including how elements are positioned in the browser. While html uses tags, CSS uses rulesets. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

- Easy Maintenance: To make a global change simply change the style, and all elements in all the webpages will be updated automatically.
- Search Engines: CSS is considered a clean coding technique, which means search engines won't have to struggle to "read" its content.
- Superior styles to HTML: CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- Offline Browsing: CSS can store web applications locally with the help of an offline cache. Using this we can view offline websites.
- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files

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CSS comprises style rules that are interpreted by the browser and then applied to the corresponding elements in your document. A style rule set consists of a selector and declaration block.

- **Selector:** A selector in CSS is used to target and select specific HTML elements to apply styles to.
- **Declaration:** A declaration in CSS is a combination of a property and its corresponding value.
 - The selector points to the HTML element you want to style.
 - declaration block contains one or more declarations separated by semicolons.
 - Each declaration includes a CSS property name and a value, separated by a colon.

3.1.3 Backend scripting language:

PHP Hypertext Preprocessor



PHP is used as the server-side scripting language. PHP is an acronym for "PHP: Hypertext Preprocessor". PHP is a widely-used, open-source scripting language. PHP scripts are executed on the server. It is compatible with all servers used today. It is easy to use and runs efficiently on the server side. It can run on various platforms like windows, Linux, UNIX, Mac OS-X etc. and since it is a scripting language, it comes with predefined functions which makes it easy to implement any logic necessary.

Features of PHP

We have learned about PHP and its uses. But what are the features that make PHP popular. Now that we have a basic understanding of PHP, let us see some of the most striking features of PHP. It is a very popular language because it is simple and is open-source. There are many convincing reasons for why you should be using PHP, some of them being:

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- It is easy to install and learn.
 - It is open-source and therefore free.
 - Not only that, but it is fast and secure.
 - It runs on various platforms (Windows, Linux, Unix, etc.).
 - PHP can access cookies variable and set cookies.
 - It supports many protocols, such as HTTP, POP3, LDAP, IMAP, SNMP, NNTP, and many more.
 - It is well-connected with databases and supports a wide range of databases
 - Many references and learning materials are available for PHP are available over the internet.
- Being a server-side scripting language (unlike JavaScript, which is a clientside scripting language), it is used to manage the dynamic and interactive content of a website and is executed on the server-side. PHP is fast and easy to learn. It can be embedded in HTML, making it easier to add functionalities without needing to call external files or data as it can be easily connected with a wide range of databases.
 - PHP has something to offer everybody- it is extremely simple and friendly for beginners, and it has lots of features for professionals. Over the years, the role of PHP has shifted, and it has now become one of the most popular programming languages in the world.
 - PHP is specifically designed for web development. It allows developers to create dynamic and interactive web pages by embedding PHP code within HTML.
 - PHP syntax is similar to c and Perl. It offers a wide range of features, including support for variables, arrays, functions, conditionals, loops, object-oriented programming, database integration, file handling and more.
 - PHP has numerous frameworks that provide a structural approach to web development. Some popular frameworks include Laravel, Symfony, CodeIgniter, and CakePHP.

3.1.4 Database MySQL



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It is an open source relational database management system (RDBMS). The MySQL development project has made its source code available under the terms of GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. For proprietary use, several paid editions are available, and offered additional functionality. MySQL is central component of LAMP open-source web application software stack. LAMP is an acronym of “Linux, Apache, MySQL, Perl/PHP/Python”. Application that use the MySQL database include TTPO3, MODx, Joomla!, WordPress, PHPBB, MYBB, and Drupal. MySQL is also used in many high-profile. Large-scale websites, including Google, Facebook, Twitter, Flickr, YouTube.

MySQL benefits

MySQL is fast, reliable, scalable, and easy to use. It was originally developed to handle large databases quickly and has been used in highly demanding production environments for many years.

Although MySQL is under constant development, it offers a rich and useful set of functions. MySQL’s connectivity, speed, and security make it highly suited for accessing databases on the internet.

MySQL’s key benefits include

- **Ease of use:** Developers can install MySQL in minutes, and the database is easy to manage.
- **Reliability:** MySQL is one of the most mature and widely used databases. It has been tested in

a wide variety of scenarios for more than 25 years, including by many of the world’s largest companies. Organizations depend on MySQL to run business-critical applications because of its reliability.

- **Scalability:** MySQL scales to meet the demands of the most accessed applications. MySQL’s native replication architecture enables organizations such as Facebook to scale applications to support billions of users.

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- **Performance:** MySQL HeatWave is [faster and less expensive](#) than other database services, as demonstrated by multiple standard industry benchmarks, including TPC-H, TPC-DS, and CH- benCHmark.

3.1.5 XAMPP



Xampp server installs a complete and ready-to-use development environment. Xampp server allows you to fit your needs and allows you to setup a local server with the same characteristics as your production. In case of setting up the server and PHP on your own, you have two choices for the method of connecting PHP to the server. For many servers PHP has a direct module interface (also called SAPI). These servers include Apache, Microsoft Internet Information Server, Netscape and iPlanet servers. Many other servers have support for ISAPI, the Microsoft module interface (OmniHTTPd for example). If PHP has no module support for your web server, you can always use it as a CGI or Fast CGI processor. This means you set up your server to use the CGI executable of PHP to process all PHP file requests on the server.

XAMPP is supported in three file formats:

- **.EXE-** It is an extension used to denote executable files making it accessible to install because an executable file can run on a computer as any normal program.
 - **.7z - 7zip file-** This extension is used to denote compressed files that support multiple data compression and encryption algorithms. It is more favoured by a formalist, although it requires working with more complex files.
 - **.ZIP-** This extension supports lossless compression of files. A Zipped file may contain multiple compressed files. The **Deflate algorithm** is mainly used for compression of files supported by this format. The .ZIP files are quite tricky to install as compared to .EXE.
-
- XAMPP is simply a local host or server.
 - This local server runs on your personal computer, whether it's a desktop or a laptop.
 - It is used to test clients or websites before publishing them to a remote web server.
 - On a local computer, the XAMPP server software provides a suitable environment for testing MYSQL, PHP, Apache, and Perl projects. Because most real-

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world web server deployments share the same components as XAMPP, moving from a local test server to a live server is straightforward.

3.1.6 APACHE



Apache is an open-source and free web server software that powers around 46% of websites around the world. The official name is Apache HTTP Server, and it's maintained and developed by the Apache Software Foundation. It allows website owners to serve content on the web — hence the name “web server”. Although we call Apache a web server, it is not a physical server, but rather a software that runs on a server. Its job is to establish a connection between a server and the browsers of website visitors (Firefox, Google Chrome, Safari, etc.) while delivering files back and forth between them (client-server structure). Apache is a cross-platform software therefore, it works on both UNIX and Windows servers.

3.2 SYSTEM REQUIREMENTS

3.2.1 Hardware Configuration

SL.NO	Hardware	Details
1.	Processor	Pentium IV
2.	RAM	6.12MB required
3.	Hard disk	GB required

Table 3.1 Hardware Configuration

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3.2.2 Software Configuration

SL.NO	Software	Details
1.	Operating System	Windows 10
2.	Developing Tool	Visual Studio Code
3.	Front End (Design)	HTML, CSS
4.	Back End (Design)	PHP
5.	Database	MYSQL
6.	Server	XAMP
7.	Documentation tool	Microsoft office 2003

Table 3.2 Software Configuration

SYSTEM DESIGN

4.1 E.R DIAGRAM

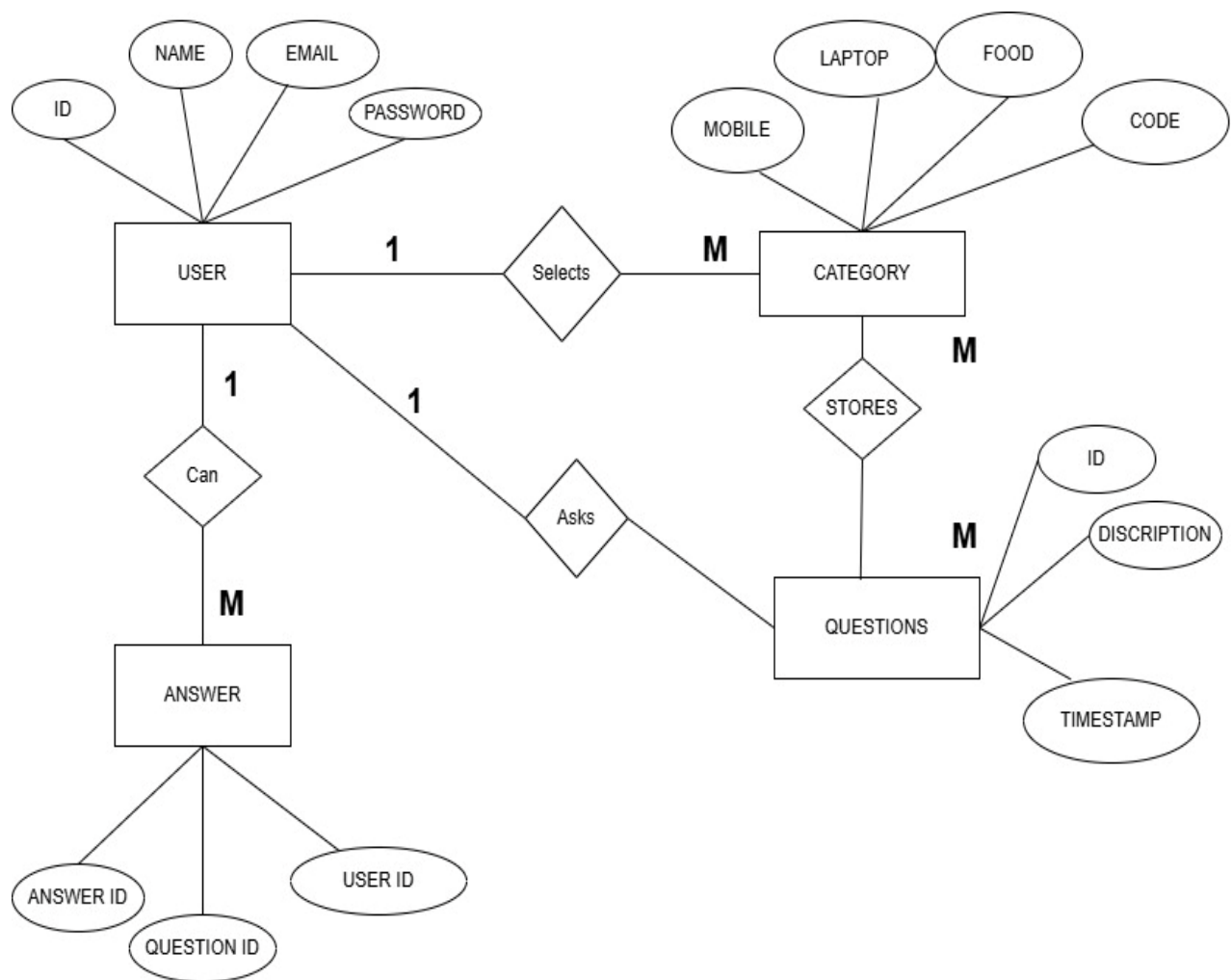


Figure 4.1 ER Diagram

Entity relationship diagram displays the relationships of entity set stored in a database. In other words, we can say that ER diagrams help you to explain the logical structure of databases. At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique.

4.2 Use Case Diagram

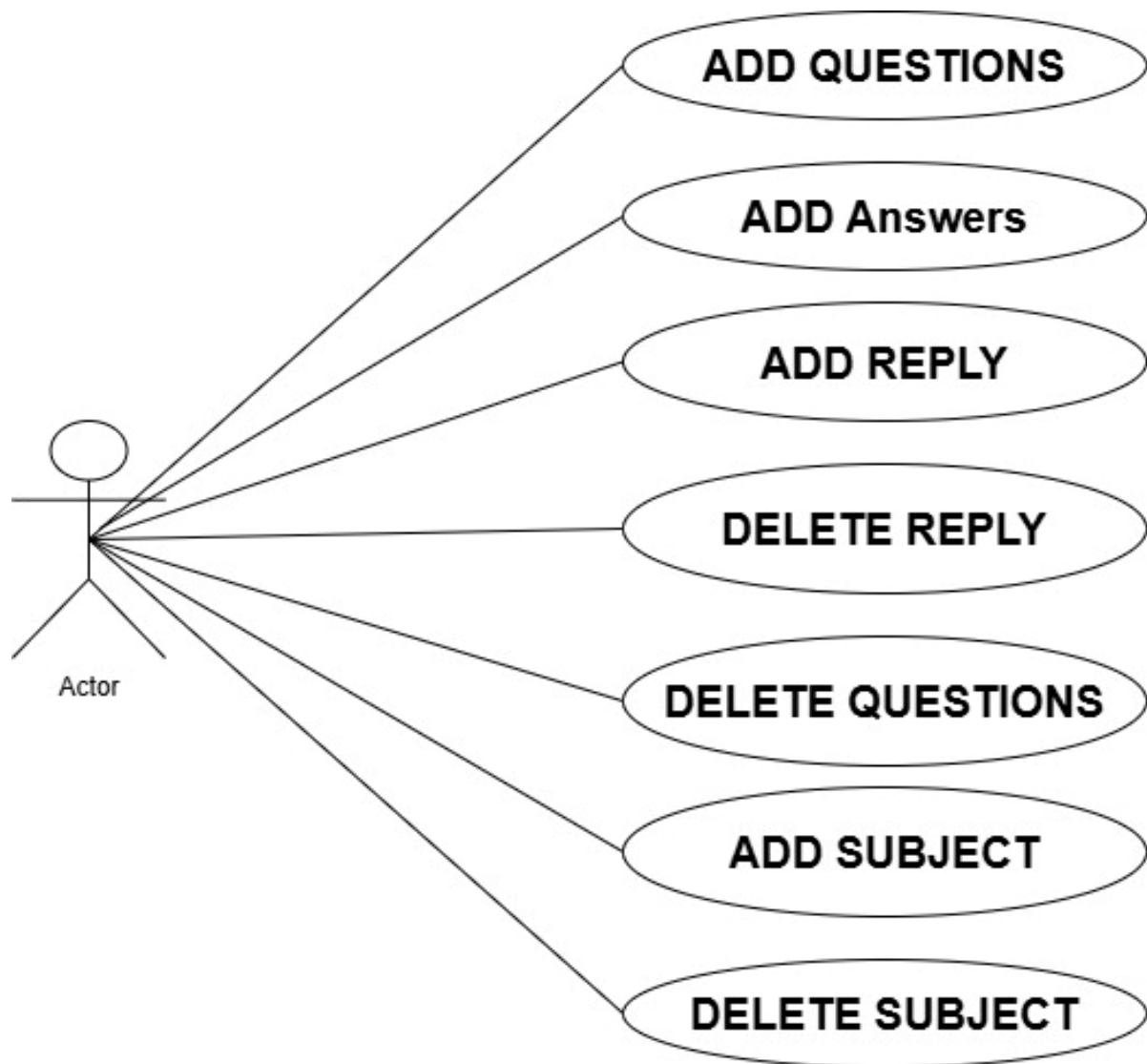


Figure 4.1 Use Case Diagram

A Use Case Diagram is a visual representation used to describe the functional requirements of a system from the user's perspective. It illustrates how different types of users (called actors) interact with the system to achieve specific goals (known as use cases). The diagram helps in identifying what the system should do (functions) rather than how it does it. By showing these interactions, use case diagrams provide a clear and simple overview of the system's scope and help in understanding user needs and system behaviour. They are widely used during the requirement gathering and analysis phase of software development.

Chapter 5

SYSTEM IMPLEMENTATION

5.1 Modules Description

5.1.1 User Management Module:

User Registration:

- Allows users to sign up with necessary details

User Authentication:

- Login and logout functionalities.
- Password hashing and secure storage.
- Session or token-based authentication.

User Roles and Permissions:

- Role-based access control (e.g., Admin, Moderator, User).
- Permission assignment for posting, commenting, editing, and deleting.

Profile Management:

- Update profile details.
- View own and other users' profiles.
- Change password and account settings.

User Activity Monitoring:

- Track user activities like posts, comments, and edits.
- Maintain a history of user interactions.

5.1.2 Question Posting Module:

Question Creation:

- **Title:** A concise, descriptive title for the question.
- **Description/Content:** A detailed explanation or context of the question.

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- **Tags:** Keywords or categories for easy searching and organization.

Input Validation and Formatting:

- Ensures that the title and description are not empty.
- Limits the length of titles and descriptions.

Rich Text Editor:

- Allows users to format the content (bold, italics, lists, code snippets).

Posting the Question:

- Submits the question to the server.
- Stores the question in the database.
- Associates the question with the user's profile.

Editing and Deleting:

- Users can edit or delete their own questions.
- Admins/Moderators can delete or flag inappropriate content.

Notifications:

- Notifies users when someone responds or interacts with their question.

5.1.3 Answer and Discussion Module:

Answer Submission:

- Users can post answers in response to a question.
- Supports a **rich text editor** for formatting (bold, italics, lists, code snippets).
- Validation for empty or excessively long answers.

Discussion and Comments:

- Users can **comment on answers** to share their opinions or ask for clarifications.
- Supports nested comments.

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- Comment formatting options using a simple text editor.
- Option to **like or upvote/downvote** answers and comments.

Answer Metadata:

- **User Information:** Display the author's username and profile link.
- **Votes Count:** Upvotes and downvotes for each answer.
- **Accepted Answer:** Marks the best or most accurate answer.

Answer and Comment Moderation:

- Admins and moderators can **edit, delete, or flag** inappropriate content.
- Users can report spam or abusive answers and comments.

Sorting and Filtering:

- Sort answers by **newest, oldest, most voted, or accepted**.
- Filter discussions based on **tags or keywords**.

5.1.4. Search and Filter Module:

Search Functionality:

- **Keyword Search:** Users can enter keywords to find matching questions, answers, or discussions.
- **Search Suggestions:** Auto-complete and auto-suggest based on popular or recent queries.
- **Full-Text Search:** Search within question titles, descriptions, answers, and tags.

Filter Functionality:

- **Filter by Category/Tag:** Narrow down questions related to specific topics.
- **Sort Options:**
 - **Relevance:** Most relevant to the search query.

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- **Newest/Oldest:** Based on posting date.
- **Most Viewed:** Popular or frequently accessed questions.
- **Filter by Status:**
 - **Answered:** Questions that have accepted answers.
 - **Unanswered:** Questions that are still open.

Pagination and Infinite Scrolling:

- Display search results in pages or load more on scroll.
- Show the total number of results and pages.

Search Optimization:

- **Indexing:** Use database indexing to speed up searches.
- **Caching:** Cache frequent or popular search results for faster responses.
- **Fuzzy Matching:** Handle spelling mistakes or partial matches.

5.1.5. Category Management Module:

Category Creation and Management:

- **Add New Category:** Admins can create new categories by specifying:
 - **Name:** Short and descriptive.
 - **Description:** Brief explanation of the category's purpose.
- **Edit Category:** Modify the name, description, or icon.
- **Delete Category:** Remove a category, with options to reassign or delete associated questions.

Category Assignment:

- **During Question Posting:**
 - Allow users to select the appropriate category from a dropdown or list.

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- **Bulk Category Assignment:**
 - Admins can assign multiple questions to a category.

Admin and Moderator Controls:

- **Role-Based Access:**
 - Only admins and moderators can add, edit, or delete categories.
- **Category Visibility:**
 - Mark categories as public, private.

5.2 Modules Description

There are total tables implemented in this project. The tables are:
Following are the contents of the table:

Users:

















#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	id 	int(30)			No	None		AUTO_INCREMENT	 Change  Drop  More
<input type="checkbox"/> 2	username	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
<input type="checkbox"/> 3	email	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
<input type="checkbox"/> 4	password	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
<input type="checkbox"/> 5	address	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More

Figure 5.1 Users

DISCUSS BOARD

Category:













				id	name
<input type="checkbox"/>		Edit		Copy	 Delete
1	mobile				
<input type="checkbox"/>		Edit		Copy	 Delete
2	Laptop				
<input type="checkbox"/>		Edit		Copy	 Delete
3	Food				
<input type="checkbox"/>		Edit		Copy	 Delete
4	Coding				

Figure 5.2 Category

Questions:

				id	title	description	category_id	user_id			
<input type="checkbox"/>		Edit		Copy		Delete	6	which is best coding platform	can anyone tell which is the best coding platform ...	4	20
<input type="checkbox"/>		Edit		Copy		Delete	7	best mid range mobile phones	please suggest me best mid range mobile under Rs 1...	1	21
<input type="checkbox"/>		Edit		Copy		Delete	8	Best laptop for gaming	Please suggest.?	2	22
<input type="checkbox"/>		Edit		Copy		Delete	9	south indian food	which is the best south indian food in karnataka	3	22
<input type="checkbox"/>		Edit		Copy		Delete	10	important topic for coding interview	please suggest?	4	20
<input type="checkbox"/>		Edit		Copy		Delete	11	how to reverse the string	please give me a code	4	23
<input type="checkbox"/>		Edit		Copy		Delete	12	Database	storeage	4	24

Figure 5.3 Questions

DISCUSS BOARD

Answers:















				id	name
<input type="checkbox"/>	 Edit	 Copy	 Delete	1	mobile
<input type="checkbox"/>	 Edit	 Copy	 Delete	2	Laptop
<input type="checkbox"/>	 Edit	 Copy	 Delete	3	Food
<input type="checkbox"/>	 Edit	 Copy	 Delete	4	Coding

Figure 5.4 Answers

5.3 Sample Output

Home Page

 [Home](#) [Login](#) [SignUp](#) [Latest Questions](#)

Questions

which is best coding platform

best mid range mobile phones

Best laptop for gaming

south indian food

important topic for coding interview

how to reverse the string

Database

Categories

Mobile

Laptop

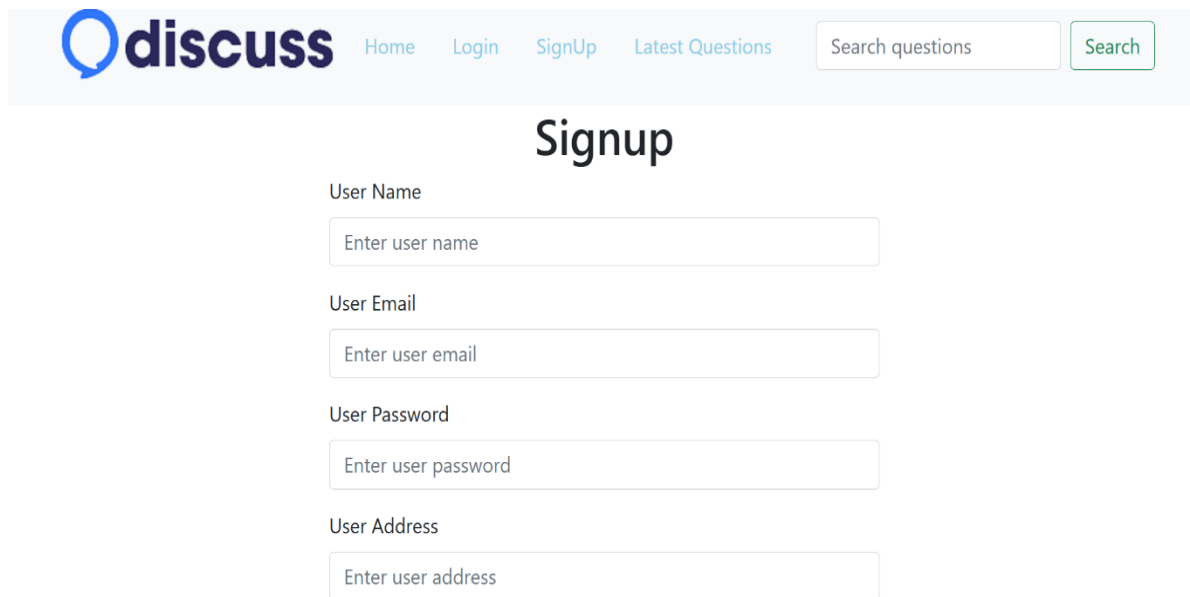
Food

Coding

Figure 5.5 Home Page

DISCUSS BOARD

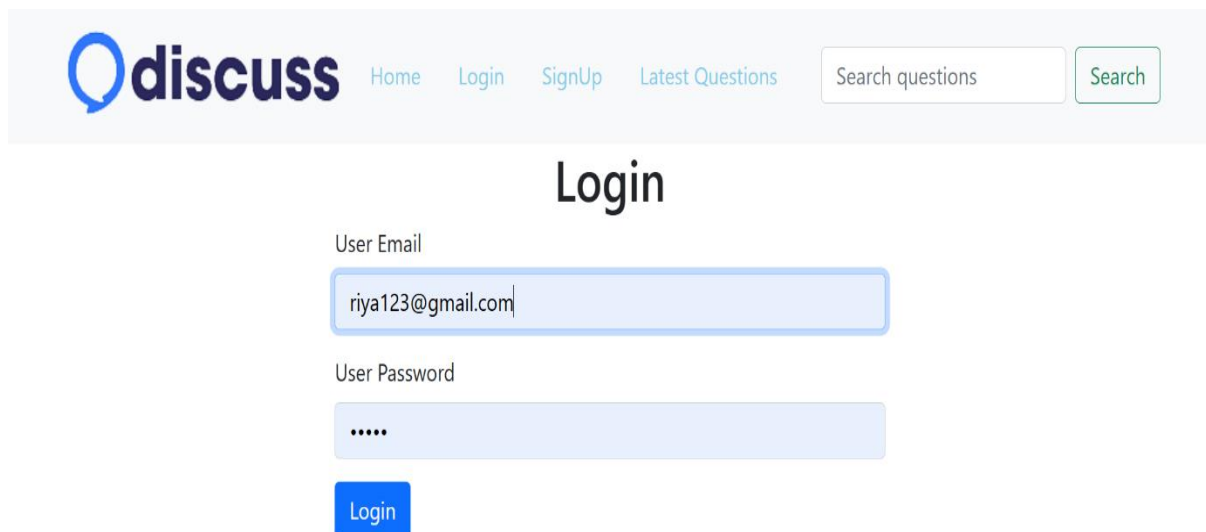
Signup Page



The screenshot shows the 'Signup' page of the 'discuss' board. At the top, there is a navigation bar with the 'discuss' logo, links for 'Home', 'Login', 'SignUp', and 'Latest Questions', and a search bar with the text 'Search questions' and a 'Search' button. Below the navigation bar, the word 'Signup' is centered in a large font. Underneath, there are four input fields: 'User Name' with the placeholder 'Enter user name', 'User Email' with the placeholder 'Enter user email', 'User Password' with the placeholder 'Enter user password', and 'User Address' with the placeholder 'Enter user address'.

Figure 5.6 SignUp Page

Login Page




The screenshot shows the 'Login' page of the 'discuss' board. At the top, there is a navigation bar with the 'discuss' logo, links for 'Home', 'Login', 'SignUp', and 'Latest Questions', and a search bar with the text 'Search questions' and a 'Search' button. Below the navigation bar, the word 'Login' is centered in a large font. Underneath, there are two input fields: 'User Email' with the text 'riya123@gmail.com' and 'User Password' with masked characters '.....'. Below these fields is a blue 'Login' button.

Figure 5.7 Login Page

DISCUSS BOARD

Ask Questions Page

[Home](#)[Logout\(tejaswi\)](#)[Ask a Question](#)[My Questions](#)[Latest Questions](#)

Ask Questions

Title

Description

Category

Select A Category

Select A Category

Mobile


Laptop

Food

Coding

Figure 5.8 Ask Questions Page

My Questions

[Home](#)[Logout\(tejaswi\)](#)[Ask a Question](#)[My Questions](#)[Latest Questions](#)

Questions

Database

Delete

Categories

Mobile

Laptop

Food

Coding

Figure 5.9 My Questions Page

DISCUSS BOARD

Latest Questions

The screenshot shows the 'Latest Questions' page of the Discuss Board. At the top, there is a navigation bar with the 'discuss' logo and links for Home, Logout(tejaswi), Ask a Question, My Questions, and Latest Questions. Below the navigation bar, the title 'Questions' is centered. A list of seven questions is displayed in a vertical stack, each in a light blue box. The questions are: Database, how to reverse the string, important topic for coding interview, south indian food, Best laptop for gaming, best mid range mobile phones, and which is best coding platform.

Questions
Database
how to reverse the string
important topic for coding interview
south indian food
Best laptop for gaming
best mid range mobile phones
which is best coding platform

Figure 5.10 Latest Questions Page

Questions and Categories in home Page


The screenshot shows the home page of the Discuss Board. At the top, there is a navigation bar with the 'discuss' logo and links for Home, Login, SignUp, and Latest Questions. To the right of the links is a search bar with the placeholder text 'Search questions' and a 'Search' button. Below the navigation bar, the page is divided into two columns. The left column is titled 'Questions' and contains a list of five questions in light blue boxes: which is best coding platform, best mid range mobile phones, Best laptop for gaming, south indian food, and important topic for coding interview. The right column is titled 'Categories' and contains a list of four categories in light blue boxes: Mobile, Laptop, Food, and Coding.

Questions	Categories
which is best coding platform	Mobile
best mid range mobile phones	Laptop
Best laptop for gaming	Food
south indian food	Coding
important topic for coding interview	

Figure 5.11 Questions and Categories in home Page

DISCUSS BOARD

Questions and Categories Page

[Home](#)[Logout\(riya\)](#)[Ask a Question](#)[My Questions](#)[Latest Questions](#)

Questions

which is best coding platform	Delete
important topic for coding interview	Delete

Categories

Mobile
Laptop
Food
Coding

Figure 5.12 Questions and Categories Page

Chapter 6

Testing

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub assemblies, assemblies and/or a finished product. It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

6.1 Unit testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application. It is done after the completion of an individual unit before integration. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results.

6.1.1 Test strategy and approach

Field testing will be performed manually and functional tests will be written in detail.

6.1.2 Test objectives

- All field entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, messages and responses must not be delayed.

6.1.3 Features to be tested

- Verify that the entries are of the correct format
- No duplicate entries should be allowed.
- All links should take the user to the correct page.

6.2 Integration testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were

DISCUSS BOARD

individually satisfaction, as shown by successfully unit testing, the combination of components is correct and consistent. Integration testing is specifically aimed at exposing the problems that arise from the combination of components.

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects. The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level interact without error.

6.3 Functional test

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals.

Functional testing is centered on the following items:

Valid Input : identified classes of valid input must be accepted.

Invalid Input : identified classes of invalid input must be rejected.

Functions : identified functions must be exercised.

Output : identified classes of application outputs must be exercised.

Systems/Procedures : interfacing systems or procedures must be invoked.

Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current tests is determined.

6.4 System Test

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

DISCUSS BOARD

6.5 Acceptance Testing

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

6.6 Test Cases

Sign Up:

Sl.no	Test Case	Expected Result	Actual Result	Status
1	Enter correct username, user email, password and address.	Directed to Login Page	Directed to Login Page	True
2	User does not enter username, user email, password and address.	“Please Fill Out This Field” has to be displayed	“Please Fill Out This Field” is displayed	True
3	User does not enter if any one of the field	“Please Fill Out This Field” has to be displayed	“Please Fill Out This Field” has to be displayed	True

Table 6.1 Sign Up

Login:

Sl.no	Test Case	Expected Result	Actual Result	Status
1	Enter correct username and password	Directed to Login Page	Directed to Login Page	True
2	User does not enter username and password	“Please Fill Out This Field” has to be displayed	“Please Fill Out This Field” is displayed	True

Table 6.2 Login

DISCUSS BOARD

Login Failed :

Sl.no	Test Case	Expected Result	Actual Result	Status
1	User enters incorrect username and password	Message “Incorrect Password” has to be displayed	Message “Incorrect Password” is displayed	True

Table 6.3 Login Failed

Chapter 8

CONCLUSION AND FUTURE ENHANCEMENT

The Discussion Board is a comprehensive platform designed to bring people together for collaborative learning and problem-solving. It serves as a practical solution for sharing knowledge and enhancing skills in real-time. By combining technologies like PHP, MySQL, and Bootstrap, the project offers developers hands-on experience in full-stack web development. This has immense potential for future enhancements, including advanced search filters, user ranking systems, and content categorization. As a learning tool, it provides a great opportunity for developers to master web technologies, and as a user platform, it fosters a vibrant online community.

This provided valuable insights into Discussion Board, enabling participants to explore different perspectives and engage in thoughtful dialogue. Through collaborative discussions, we were able to examine key issues, share relevant research, and propose practical solutions. The diversity of viewpoints and contributions has deepened our understanding and fostered a rich learning experience. As we move forward, it is essential to continue reflecting on the ideas presented and consider their implications for future [related field, work, etc.]. Ultimately, the discussions held here not only enhanced our individual knowledge but also contributed to the collective growth of the group. I look forward to further exploring the topic and applying these insights in future endeavors.

7.1 Future Enhancement

To enhance the discussion board, features like user profile customization, real-time notifications, and advanced search and filtering can greatly improve usability. Integrating upvoting, downvoting, and gamification elements like badges and points would boost community engagement, while moderator tools ensure quality control. Private messaging and social media integration would enhance connectivity, and support for rich text and media would make posts more dynamic. Additionally, offering dark mode, custom themes, and AI-driven content recommendations would improve the user experience, while polls and surveys within threads would encourage interactive participation.

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 - **GeeksforGeeks PHP Tutorials:** <https://www.geeksforgeeks.org/php-tutorials/>
 - **TutorialsPoint PHP Guide:** <https://www.tutorialspoint.com/php/index.htm>