

# MIT Art, Design and Technology University MIT School of Computing, Pune

**Department of Information Technology** 

## Lab Manual

**Practical - Web Programming** 

Class - S.Y. (SEM-II), DA

Batch - DA-I

Student Name: Ms. Swagata Routh

S.Y. 2024 - 2025 (SEM-IV)

Web Programming SEMESTER - IV				
Course Code:	23IT2008	Course Credits:	02	
Teaching Hours / Week (L:T:P):	0:0:4	CA Marks:	25	
Total Number of Teaching Hours:		END-SEM Marks:	25	

## **Course Pre-requisites:**

#### **Course Description:**

This course provides a comprehensive introduction to web technology, designed to help students develop a strong foundation in building and managing websites and web applications. The curriculum covers key topics such as HTML, CSS, and JavaScript,PHP, MySQL, which are essential for creating interactive, well-designed web pages. Students will also explore the principles of responsive design, ensuring that web applications are optimized for different devices and screen sizes.

The course dives deeper into server-side technologies, including HTTP, web servers, and databases, allowing students to understand how websites function behind the scenes. Emphasis is placed on practical learning, and students will gain hands-on experience by working on projects that showcase their ability to design, develop, and deploy websites.

By the end of the course, students will be proficient in using modern web technologies to create web applications. They will understand how to handle client-server interactions, manage user data, and implement various web technologies to enhance the functionality of their applications.

## **Course Learning Objectives:** This course will enable the students to:

- 1. Understand fundamental concepts of front-end web development.
- 2. Enable students to create basic web pages incorporating essential elements such as images, hyperlinks, lists, tables, and forms.
- 3. Teach students how to use CSS to manage fonts, lists, colors, text alignment, and background images for a cohesive and aesthetically pleasing web design.
- 4. Develop an understanding of JavaScript scopes to manage the visibility and lifetime of variables and functions effectively.
- 5. Equip students with the skills to implement and handle JavaScript events, enabling enhanced user interactions through event-driven programming.
- 6. Apply comprehensive knowledge of HTML, CSS, and JavaScript to develop a complete front-end application. Utilize project-based learning to showcase problem-solving skills and creativity in web development projects.
- 7. Configure server environments with Apache/TOMCAT.
- 8. Set up a PHP development environment and write basic PHP scripts.
- 9. Master PHP programming constructs for web development tasks.
- 10. Create and process HTML forms, and manage MySQL database operations.
- 11. Develop comprehensive back-end applications using PHP and MySQL.

#### **Course Outcome:** After taking this course, Students will be able to:

- 1. Apply knowledge of HTML to create the structure of the webpage and CSS to style and layout the elements, making the application visually appealing.
- 2. Apply comprehensive knowledge of HTML, CSS, and JavaScript to develop a complete front-end application and utilize project-based learning to showcase problem-solving skills and creativity in web development projects.
- 3. Set up and configure a server environment using tools like Apache or TOMCAT and set up a PHP development environment. Write & execute simple PHP scripts, understanding PHP syntax and basic features, create HTML forms to collect user data and integrate with PHP

for processing.

4. Design and develop a back-end application using PHP and MySQL, implementing CRUD operations to manage data effectively.

## **UNIT - I** Introduction to HTML and Cascading Style Sheet

09 Hours

Module 1 - Markup Language (HTML): Introduction to HTML, Formatting and Fonts, Commenting Code, Anchors, Backgrounds, Images, Hyperlinks, Lists, Tables, Frames, HTML Forms

Module 2 - CSS: Need for CSS, introduction to CSS, basic syntax and structure, Levels of style sheets, Style specification formats, BOX Model, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, Background images

## **Pedagogy**

**ICT Teaching / PowerPoint Presentation and Videos:** 

Use tools like Visual Studio Code (free).

**Videos:** 

https://www.coursera.org/learn/html-css-javascript-for-web-developers

Self-study / Do it yourself /:

Practice creating basic HTML pages and enhancing them using CSS.

**Experiential Learning Topics:** 

Design a simple webpage for coffee shop website

**PBL - Project Based Learning:** 

Create a multi-page website (e.g., coffee shop website) using HTML and CSS.

## **UNIT - II** | **Front-End Development**

09 Hours

Module 3 - Overview of JavaScript, including JS in an HTML (Embedded, External), Basic JS syntax, basic interaction with HTML

Module 4 - Core features of JavaScript: Data types, Control Structures, Arrays, Functions and Scopes

## **Pedagogy**

**ICT Teaching / PowerPoint Presentation and Videos:** 

Use tools like Visual Studio Code (free).

**Videos:** 

https://www.coursera.org/learn/javascript-basics

Self-study / Do it yourself /:

Solve exercises on JavaScript syntax, control structures, and functions

**Experiential Learning Topics:** 

Build a web page with interactive elements (e.g., a simple calculator).

**PBL - Project Based Learning:** 

Develop an interactive webpage that uses JavaScript to validate form inputs or perform basic calculations.

## **UNIT - III** | **Advanced Front-End Development**

09 Hours

Module 5 - DOM: DOM levels, DOM Objects and their properties and methods, Manipulating DOM Module 6 - JavaScript Events: JavaScript Events, Types of JavaScript Events, Objects in JS, Event Handling

#### **Pedagogy**

**ICT Teaching / PowerPoint Presentation and Videos:** 

 $\underline{https://www.coursera.org/learn/building-interactive-web-pages-using-javas}$ 

<u>cript</u>

Use tools like Visual Studio Code (free).

Self-study / Do it yourself /:

Practice exercises on DOM traversal and event handling.

**Experiential Learning Topics:** 

Add dynamic behavior to a webpage using DOM and events (e.g., a to-do list app).

**PBL - Project Based Learning:** 

Develop a web page with dynamic content (e.g., a task manager or interactive quiz) using DOM manipulation and event handling.

## **UNIT - IV** | **Server Side Scripting**

09 Hours

Module 7 - Set up and configure a server environment using tools like Apache or TOMCAT, set up a PHP development environment.

Module 8 -Introduction to PHP: : Introduction to PHP, Server side scripting Vs Client side scripting, Basic Development Concepts (Mixing PHP with HTML), Creating, Writing & Running First PHP Script, PHP syntax, conditions & Loops, Functions, String manipulation, Arrays & Functions,

Module 9 - Form handling with HTML and PHP: Designing of Forms using HTML, Form Handling using GET and POST methods of Form

#### **Pedagogy**

**ICT Teaching / PowerPoint Presentation and Videos:** 

https://www.coursera.org/learn/web-applications-php

Use tools like Visual Studio Code (free), XAMPP/WAMP for PHP server setup, and MySQL Workbench for database management

Self-study / Do it yourself /:

Practice exercises on form handling and server-side scripting with PHP.

**Experiential Learning Topics:** 

Create a basic form for data submission and handle it using PHP (e.g., feedback form).

**PBL - Project Based Learning:** 

Develop a small server-side application (e.g., a contact form with email validation and submission).

## UNIT - V

## Working with Databases and Web Application Development

09 Hours

Module 10 - Working with databases using MySQL with PHP: MySQL database, create database, create table, primary key with AUTO\_INCREMENT setting, Insert Data Into a Database Table, Select Data From a Database Table, Open or close a Connection to the MySQL Server.

Module 11 - Web Application Development (Project): Develop the web application to handle client-server interactions, manage user data, and implement various web technologies to enhance the functionality of their applications. Example: Website for a Coffee Shop

#### **Pedagogy**

**ICT Teaching / PowerPoint Presentation and Videos:** 

Use tools like Visual Studio Code (free), XAMPP/WAMP for PHP server setup, and MySQL Workbench for database management

**Videos:** 

https://www.coursera.org/learn/web-app

Self-study / Do it yourself /:

Exercises on creating and manipulating databases using PHP and MySQL.

**Experiential Learning Topics:** 

Create a database and design a webpage to display its data dynamically.

**PBL - Project Based Learning:** 

Develop a fully functional web application (e.g., a Coffee Shop website or e-commerce platform) that integrates database functionality for data management.

#### **Text Books:**

- 1. "HTML and CSS: Design and Build Websites" by Jon Duckett.
- 2. "Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics" by Jennifer Niederst Robbins.
- 3. Achyut Godbole & Atul Kahate, ||Web Technologies: TCP/IP to Internet Application Architectures||, McGraw Hill Education publications, ISBN, 007047298X, 9780070472983.
- 4. Ralph Moseley & M. T. Savaliya, —Developing Web Applications|, Wiley publications, ISBN 13: 9788126538676.

#### **Reference Books:**

- 1. Eloquent JavaScript: A Modern Introduction to Programming by Marijn Haverbeke.
- 2. JavaScript: The Good Parts by Douglas Crockford.
- 3. CSS Secrets: Better Solutions to Everyday Web Design Problems by Lea Ver.
- 4. Web Technologies- Jeffery C. Jackson, ISBN 978-81-317-1715-8 Pearson 2015.
- 5. PHP Objects, Patterns, and Practice by Matt Zandstra
- 6. MySQL Cookbook by Paul DuBois.
- 7. Advanced PHP Programming George Schlossnagle- ISBN 0-672-32561-6,2004.

## **URLs (Optional) - List of Online Courses**

- 1. W3Schools HTML, CSS, JavaScript Tutorial: <a href="https://www.w3schools.com/html/">https://www.w3schools.com/html/</a>
- 2. Mozilla Developer Network (MDN) Web Docs HTML, CSS, JavaScript, DOM: <a href="https://developer.mozilla.org/en-US/docs/Learn/HTML/Introduction to HTML">https://developer.mozilla.org/en-US/docs/Learn/HTML/Introduction to HTML</a>
- 3. Project-Based Learning Resources: <a href="https://developer.mozilla.org/en-US/docs/Learn">https://developer.mozilla.org/en-US/docs/Learn</a>

## **Contents beyond Syllabus:**

- 1. Web Essentials
- 2. Using JavaScript to handle form submission and login events (e.g., onsubmit, onclick)
- 3. JavaScript Form validations, General Input Validation, Password Validation
- 4. Storing user data (like a username) temporarily using localStorage or sessionStorage
- 5. Dynamically updating the content of the webpage, such as displaying a welcome message
- 6. Redirecting users using window.location

#### **List of Experiments:**

In this series of assignments, you will create a coffee shop / any other website step by step. Each assignment will focus on a different aspect of the website, covering various HTML elements, CSS, JavaScript, PHP and MySQL concepts.

## **Laboratory/Project Assignment Guidelines:**

#### 1. Project Selection:

- Each student must select a unique project topic for their laboratory assignments.
- The chosen project topic should align with the concepts covered in the course syllabus.
- The chosen project topic should be approved by the course coordinator/ subject teacher.
- Students have the freedom to choose their project topics based on their interests and career aspirations.
- Project topics may include but are not limited to:
  - E-commerce website
  - Blogging platform
  - Online booking system
  - Content management system (CMS)
  - Discussion forum
  - Social networking platform
  - Task management application
  - Portfolio website

#### 2. Laboratory Assignments:

• Throughout the course, students will complete laboratory assignments related to their chosen project topic.

## 3. Evaluation Criteria:

- The laboratory assignments and the final project will be evaluated based on criteria such as Structure and Semantics, Content Organization, Forms and Inputs, Links and Navigation, Styling and Layout, Design Consistency, Functionality, Code Quality and adherence to project requirements.
- Students are expected to demonstrate creativity, and a comprehensive understanding of web development principles in their projects.
- The laboratory assignments based on chosen project topics will be assessed based on several key criteria that reflect both technical proficiency and creative application in web development. These include:
  - Structure & Semantics: Proper use of HTML to create a logical, accessible structure with meaningful and semantically correct elements.
  - Content Organization: Clear and intuitive organization of content, ensuring ease of navigation and logical flow throughout the site.
  - Forms & User Input: Effective implementation of forms and user input elements that are functional, validated, and accessible.
  - Links & Navigation: Well-structured navigation and functional links that provide a seamless user experience.

- Styling & Layout: Visually appealing and responsive design, with a well-executed layout that adapts to various screen sizes.
- Design Consistency: Uniformity in design elements, including colors, typography, and spacing, to maintain a cohesive look and feel across the site.
- Functionality: Full functionality of all interactive elements, ensuring a bug-free, smooth experience for users.
- Code Quality & Best Practices: Clean, well-organized, and efficient code that adheres to modern web development best practices and is easy to maintain.

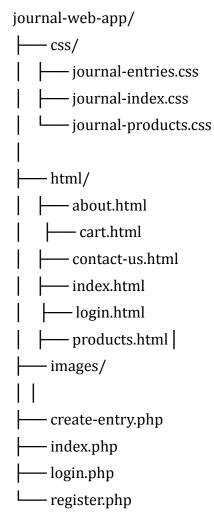
## 4. Submission and Presentation:

• The project and project report/journal must be submitted within the specified deadline and should meet the specified requirements outlined by the course coordinator/subject teacher.

#### **Project Problem Statement-**

Design and develop a basic journaling website using HTML, CSS, JavaScript, PHP, and MySQL. This platform will allow users to create, view, edit, and delete personal journal entries in a secure and user-friendly environment. The website will reflect a calming and personal aesthetic, offering users an intuitive interface to capture their daily thoughts, memories, and reflections..

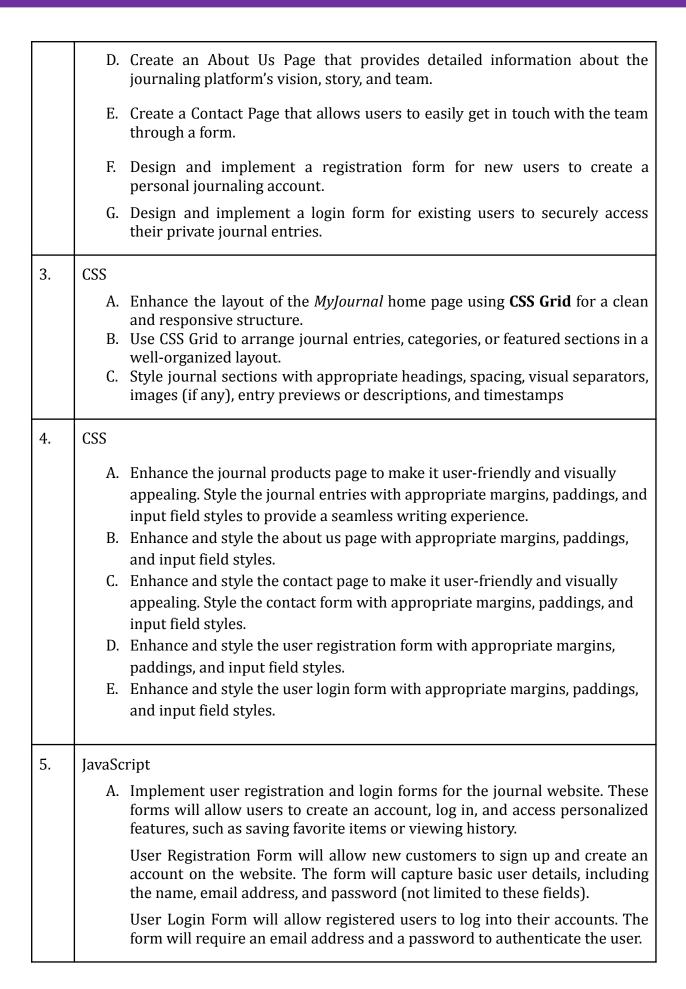
The project directory is as follows:



- 1. Create the basic structure of a journaling web app, including the home page layout with a header, main content area, and footer. Prepare a design and planning document that defines the purpose, goals, modules, audience, and visual style of the journaling application.
  - 1. Brief information about the project.
  - 2. Set the goals & deliverables.
  - 3. Finalize the modules of the project.
  - 4. Define the audience.
  - 5. Describe pain points & the ideal experience (On the basis of existing systems)
  - 6. Set the visual direction
  - 7. Map out the Project structure.
  - 8. Plan the content for each page.
  - 9. Add ideas for content, images & layout.
  - 10. Determine your site structure or Create content for your core website pages:
    - a. Home page
    - b. About page
    - c. Product/Service page
    - d. Testimonial/review page
    - e. Contact page
    - f. Starter blog posts
  - 11. Create and collect design elements
  - 12. These design elements define your brand personality and help customers feel what your brand represents through the use of:
    - a. Colors
    - b. Fonts and typography
    - c. Logos
    - d. Images and photo

#### 2. HTML

- A. Create a detailed home page for the journaling web app.
- B. Create a detailed Dashboard/Feature Page for the journaling web app, listing all available tools categorized appropriately.
- C. Create a Journal Entry Management Page that allows users to review, edit, and delete their saved entries before finalizing or exporting.



- B. Provide validations for user registration and login forms to validate the input to ensure that all required fields are filled and that the email format is valid. (Contents beyond Syllabus)
- C. Develop cart functionality to allow users to add items, update quantities, and remove items.

## 6. JavaScript

- A. The user login form will allow registered users to log into their accounts. The form will require an email address and a password to authenticate the user.
- B. If the login is successful, the user should be redirected to the homepage or their user dashboard. (**Contents beyond Syllabus**)
- C. Use localStorage or sessionStorage to store authentication data, such as the user's email and login status. This ensures that once a user is logged in, they remain authenticated even after the page reloads or when they visit the site again. (Contents beyond Syllabus)
- D. Save the cart data to local storage when items are added, updated, or removed. Retrieve and load the cart data from local storage when the page loads. (Contents beyond Syllabus)

#### 7. | PHP

- A. Develop a PHP script to handle user registration for the Journaling Web App. The script should accept input from users for all required registration fields such as username, email address, and password.
- B. Implement robust input validation and error handling to notify users of any registration issues, such as missing fields, invalid email format, or weak passwords.
- C. Provide clear feedback to the user upon successful registration, such as displaying a confirmation message or redirecting the user to the login page.

#### 8. PHP

- A. Develop a PHP script to handle user login for the Journaling Web App. The script should accept input from users for all required login credentials, typically email/username and password.
- B. Implement error handling to notify users of login failures, such as incorrect credentials, missing input fields, or system errors.
- C. Provide feedback to the user upon successful login, either by:
- D. Displaying a welcome message with the user's name, or redirecting the user to the home/dashboard page where they can begin writing or viewing their journal entries..

## 9. PHP and MySQL

- A. Develop a PHP script that allows users to manage their journal entries for a personal journaling website. The script should allow users to create new journal entries, view their existing entries, and delete or edit entries as needed.
  - Use MySQL to store the journal data, ensuring entries are saved and persist across user sessions.
- B. Develop a PHP script to manage user journal entries using MySQL. The script should allow users to write new journal entries, view a list of all saved entries, and delete specific entries from their journal. Journal data should be stored in a MySQL database to ensure long-term persistence and secure retrieval.

## 10. | PHP and MySQL

- A. Develop a PHP script to handle the final submission process for users who are ready to save or finalize a journal entry. The script should validate the entry content, store the entry data in the MySQL database, and provide feedback to the user upon successful or failed submission.
- B. Create a PHP script that processes journal entries submitted by users, integrating with a MySQL database to manage user and entry information. The script should validate the input (e.g., prevent empty or malicious content), store the journal data, and return a success or error message to the user based on the result.

## **Experiment No.1**

## **Problem Statement:**

- 1. HTML
- 1. Create the basic structure of a journaling web app, including the home page layout with a header, main content area, and footer. Prepare a design and planning document that defines the purpose, goals, modules, audience, and visual style of the journaling application.
  - 13. Brief information about the project.
  - 14. Set the goals & deliverables.
  - 15. Finalize the modules of the project.
  - 16. Define the audience.
  - 17. Describe pain points & the ideal experience (On the basis of existing systems)
  - 18. Set the visual direction
  - 19. Map out the Project structure.
  - 20. Plan the content for each page.
  - 21. Add ideas for content, images & layout.
  - 22. Determine your site structure or Create content for your core website pages:
    - g. Home page
    - h. About page
    - i. Product/Service page
    - j. Testimonial/review page
    - k. Contact page
    - l. Starter blog posts
  - 23. Create and collect design elements
  - 24. These design elements define your brand personality and help customers feel what your brand represents through the use of:
    - e. Colors
    - f. Fonts and typography
    - g. Logos
    - h. Images and photos

## **Objective:**

To design the foundational structure of a journaling web app by planning its layout, key features, and design language, and to initiate its front-end implementation using HTML and CSS.

## Theory:

## Project Design and Plan Document for Journalling Website

#### 1. Brief Information about the Project

"MyJournal" is a web-based journaling platform that enables users to write, edit, and manage personal journal entries securely. The application supports user authentication, rich-text entries,

mood tracking, and a dashboard for reviewing past entries. The aim is to create a safe, clean, and personalized writing space.

#### 2. Goals and Deliverables

#### Goals

- Enable users to create an account and log in securely.
- Provide a clean and distraction-free interface to write and save journal entries.
- Support rich text features (bold, italic, bullet points).
- Include features like mood tagging, date filters, and search.
- Offer a mobile-responsive design.

#### **Deliverables**

- Website Pages:
  - o Home Page
  - About Page
  - Products/Services Page
  - Testimonials Page
  - Contact Page
  - Login Page
  - Registration Page
  - Starter blog posts or placeholder for future blogs (optional).
- Core Features:
  - Header and footer with consistent navigation across pages.
  - Fully functional login and registration system.
  - Responsive design optimized for desktop, tablet, and mobile views.
  - o Professional and consistent UI, leveraging brand-specific colors, typography, and images.
  - Rich Text Editor for journal entries with options like formatting and mood tagging.

#### 3. Finalize the modules of the project

The journal website will have a modular structure that ensures easy navigation, usability, and maintenance. Each module corresponds to a distinct functionality or page, helping in modular development and integration. Below is a detailed description of the finalized modules:

Website Modules

#### 1. Home Page Module

#### Description:

• The main landing page introduces users to MyJournal and highlights key features. It sets the tone with a calm design and clear pathways to explore the app or sign up.

#### Features:

- Hero section with tagline and call-to-action buttons (e.g., "Start Journaling" or "View Dashboard").
- Intro to benefits of journaling (well-being, personal growth).
- Navigation bar linking to About, Dashboard, Testimonials, Login/Register, Contact.
- Footer with quick links, contact info, and social icons.

#### 2. About Page Module

#### Description:

• Provides an overview of the app's purpose, mission, and benefits for users across different backgrounds.

#### Features:

- Explanation of journaling's mental, emotional, and productivity benefits.
- Sections like "Why Journaling?", "Who It's For?", "How It Helps".
- Visually engaging layout with illustrations of writing, wellness, or mindfulness.

## 3. Dashboard (Journal Entries) Module

## Description:

• The core workspace where users write, manage, and organize their journal entries.

#### Features:

- Rich-text editor for writing with formatting options (bold, italic, bullet points).
- Mood selection and tagging for each entry.
- Filters to view entries by date, mood, or search keyword.
- Option to edit or delete previous entries.
- Stats or writing streak indicators.

## 4. Testimonials Page Module

#### Description:

Builds user trust and motivation through shared success stories and feedback.

#### Features:

- Grid or slider layout for displaying testimonials.
- Include optional forms for users to submit their journaling experiences.
- Quotes paired with avatars or first names to maintain privacy.

## 5. Contact Page Module

#### Description:

• Allows users to reach out for support, inquiries, or feedback.

#### Features:

- o Contact form (Name, Email, Message).
- Direct email or support ID for app issues or suggestions.
- Optional FAQ section for common queries.

## 6. Login Page Module

## Description:

Secure access page for existing users to log into their journal.

#### Features:

- o Login form (Email, Password).
- o "Forgot Password?" link for password recovery.
- Redirect link to registration for new users.

## 7. Registration Page Module

## Description:

Onboarding interface for new users to create an account and start journaling.

#### Features:

- Registration form (Full Name, Email, Password, Confirm Password).
- Checkbox to accept Terms & Conditions.
- Submit button to create account and redirect to dashboard.

#### 8. Footer Module

## Description:

• A consistent footer across all pages offering key navigation and contact info.

#### Features:

- Quick links: About, Contact, Privacy Policy, Terms of Service.
- Social media icons (optional).
- App's contact email and a short tagline.

#### 4. Define the audience

## **Target Audience**

The website for journaling is designed to cater to a broad spectrum of visitors, each with specific needs and expectations. Understanding the audience ensures the website design, content, and features meet their requirements. Below is a breakdown of the target audience:

#### a. Students & Young Adults

#### Characteristics:

- Often balancing academics, extracurriculars, and social life.
- Interested in personal development and reflective practices.
- May use journaling as a tool for mental clarity or habit tracking.

#### Needs:

- Easy-to-use journal entry interface for daily reflections and planning.
- Templates for academic goals, gratitude logs, or mood tracking.
- Visual stats or streaks to encourage consistency.
- Mobile responsiveness for on-the-go journaling.

## b. Working Professionals

#### Characteristics:

- Typically busy with meetings, deadlines, and career goals.
- Seek time-efficient ways to reflect on productivity and growth.
- Often journals to de-stress or review performance.

#### Needs:

- Clean dashboard to manage daily logs or to-do lists.
- Tags or filters for work-related thoughts or weekly summaries.
- Calendar-based entry view to reflect on past productivity.
- Option to export entries for personal review or coaching.

#### c. Therapists / Patients

#### Characteristics:

- Use journaling as a therapeutic or mental health tool.
- Journaling is part of therapy sessions or personal emotional tracking.

o Privacy and data security are highly valued.

#### Needs:

- Mood/emotion tagging with emoji or color-coded indicators.
- Secure login and optional journal encryption.
- Prompts for guided journaling (e.g., "What triggered this emotion?").
- Timeline view to see emotional patterns or progress.

## d. Writers / Bloggers

#### Characteristics:

- Creative individuals who use journaling to brainstorm and draft.
- Appreciate structured and unstructured writing spaces.
- Need space to jot ideas, edit content, or store inspiration.

#### Needs:

- Rich-text editor with bullet points, bold/italic styling, headings.
- Option to save drafts or categorize entries (e.g., ideas, edits, final).
- Word count tracker and export options (PDF, Markdown).
- Dark mode for distraction-free night writing.

#### e. General Users

#### Characteristics:

- Casual users looking to cultivate a journaling habit.
- May focus on gratitude, mindfulness, or life reflections.
- Appreciate simplicity and motivation in design.

#### Needs:

- Friendly UI with daily reminders or motivational quotes.
- Simple journaling flow with optional prompts.
- Basic stats: entry count, writing streaks, etc.
- o Positive reinforcement through badges or visual streaks.

## Website Features Mapped to Audience Needs:

Audience Segment	Key Features Needed	
Students & Young Adults	Templates for academic journaling, mood tracking, and study reflections. Visual streaks and mobile access.	
Working Professionals	Clean dashboard for productivity logs, calendar view, export options, and secure private journaling.	
Therapists / Patients	Mood tagging, guided prompts, secure/encrypted entries, and timeline-based emotion tracking.	
Writers / Bloggers	Rich text editor, word count, draft-saving, category tagging, and export to Markdown/PDF.	
General Users	Simple daily journal UI, motivational quotes, reminder notifications, and intuitive navigation.	
New Users	Clear onboarding, user-friendly interface, and a sample entry or demo tutorial for first-time engagement.	

## Why Understanding the Audience is Important

- Helps in creating engaging and relevant content tailored to users' preferences.
- Enhances the user experience (UX) by addressing specific pain points and ensuring seamless navigation.
- Builds brand trust and attracts loyal users who resonate with the journaling app's purpose and mission.
- Leads to targeted feature rollouts, like mental health tracking for therapy users, productivity features for professionals, or creative space for writers.

## 5. Describe pain points & the ideal experience (On the basis of existing systems)

- 1. Identifying Pain Points of Existing Systems
- a. Pain Point: Complex Interfaces
  - Issue: Many journaling apps have cluttered layouts, overwhelming new users with too many features at once.
  - Impact: Users may feel intimidated or confused, leading to decreased engagement or abandonment.

#### b. Pain Point: Lack of Personalization

- Issue: Some journaling platforms fail to tailor the experience to different user needs (e.g., mood tracking for mental health users, templates for students).
- Impact: Users may not find value in continuing to use the platform if it doesn't resonate with their journaling style.

#### c. Pain Point: Limited Privacy and Security

- Issue: Journaling often involves sensitive, personal thoughts, yet many apps lack proper security like encryption or secure logins.
- Impact: Users hesitate to write freely, fearing their data might be compromised or read by others.

#### d. Pain Point: No Motivational Features

- Issue: Users who are trying to build a journaling habit get no reminders, progress tracking, or rewards.
- Impact: They lose interest quickly and stop journaling consistently.

#### e. Pain Point: Inadequate Mobile Experience

- Issue: Some journaling platforms aren't optimized for mobile use or have poor responsiveness.
- Impact: Users who want to journal on the go face difficulty typing or navigating, reducing usage frequency.

#### f. Pain Point: Lack of Rich Text Formatting

- Issue: Many basic journaling apps only support plain text without formatting options like bold, bullet lists, or headers.
- Impact: Creative users or bloggers find it limiting and seek more expressive alternatives.

#### g. Pain Point: No Data Insights or Mood Tracking

- Issue: Users have no way to reflect on past entries or track patterns in emotions or activity.
- Impact: The journaling experience feels static and doesn't support personal growth or analysis.

#### 2. Crafting the Ideal Experience

To address these pain points, the website design and functionality should create a user-friendly, visually appealing, and highly interactive experience.

#### a. Intuitive Navigation and Clean Design

- Use a clear and consistent layout with a sticky navigation bar.
- Include links to all key pages: Home, About, Dashboard, Entries, Login/Sign Up, Contact.
- Organize the dashboard with easily identifiable icons and labeled sections like "New Entry,"
   "My Journals," and "Insights."

#### b. Seamless Journaling Flow

- Allow users to create, save, edit, and delete journal entries effortlessly.
- Include a prominent "New Entry" button on the dashboard.
- Enable features like auto-save, word count, and tagging for easy organization.

## c. Mobile-Responsive Design

- Design with a mobile-first approach, ensuring accessibility across phones, tablets, and desktops.
- Use flexible grids, touch-friendly buttons, and fast-loading components.
- Ensure journaling and mood-tracking functions are fully usable on mobile screens.

#### d. Comprehensive Entry and Mood Tracking

- Provide a rich-text editor with formatting tools (bold, italic, lists, headings).
- Allow users to tag moods, attach images, or mark entries as private.
- Optional filters to sort entries by date, mood, or keyword.

## e. User Engagement Features

- Implement writing streaks, badges, and progress tracking to build daily journaling habits.
- Provide prompts and motivational quotes on the dashboard.
- Include a "Featured Tips" or "Journal Ideas" section for new users.
- Optional blog/articles section covering topics like mental health, mindfulness, and creativity.

#### f. Easy Access to Support and Feedback

- Add a Contact page with a simple inquiry/feedback form (Name, Email, Message).
- Provide support links or FAQs for new users.
- Include optional social media or community links to join discussions or get tips.

## 3. The Ideal User Journey

## Step 1: Visiting the Website

Users arrive at a calming and visually inviting homepage, featuring a brief intro about the benefits of journaling and clear navigation to all sections like About, Login/Register, Dashboard, and Contact.

## Step 2: Exploring the Platform

Users browse through the About section or introductory blog posts to understand the app's purpose, journaling benefits, and features like mood tracking and writing streaks.

## Step 3: Signing Up or Logging In

New users register quickly using a clean form. Returning users log in securely to access their dashboard. First-time users may be guided with a welcome message or sample journal entry.

#### Step 4: Creating and Managing Journal Entries

Users reach the dashboard, where they can:

- Create a new journal entry using a rich-text editor.
- Tag their mood, add titles, or use writing prompts.
- Browse or filter previous entries by date, tag, or emotion.

#### Step 5: Engaging with Personal Insights

Users explore features like:

- Mood graphs, writing streaks, or reflections over time.
- Daily motivational quotes or suggestions to encourage consistent journaling.
- Tips or blog posts on mindfulness, creativity, and well-being.

#### Step 6: Building a Habit and Loyalty

As users continue journaling:

- They earn badges for streaks, gain motivational feedback, and feel a sense of progress.
- Optionally, they subscribe to email prompts or community newsletters.
- The platform learns user patterns to provide a more personalized journaling experience.

#### 6. Set the visual direction

#### **Color Palette**

A soft and calm color palette designed to inspire peace and introspection, helping users feel comfortable and focused while journaling.

Color	Hex Code	Usage
Blush Pink	#FADADD	Used in buttons, highlights, and mood indicators to evoke gentleness
Pale Peach	#FFE5B4	Background color for pages, offering a soft, cozy feeling
Warm Ivory	#FFF8E7	Used for forms, cards, and UI containers for a clean, pastel base
Dusty Lavender	#D8B4DD	Accent color for CTAs or hover effects to add visual contrast

## b. Typography

Fonts are chosen for readability and emotional warmth—ideal for expressive and reflective writing.

- **Primary Font**: *Playfair Display* Used for headings, entry titles, and quotes.
- **Secondary Font**: *Open Sans* or *Roboto* Used for body text, descriptions, and navigation.
- Attributes:
  - Bold weights for headlines and section titles.
  - Light to regular weights for reading-heavy areas like journal entries.

## c. Logo and Branding

A soft and inviting logo that reflects creativity, personal growth, and writing.

- **Concept**: A **pen**, **book**, or **heart icon** combined with the text *MyJournal*.
- Usage:
  - Logo in the header and footer for brand consistency.
  - A monochrome version for minimalist pages like login or mobile view.

## d. Imagery and Icons

Visuals should encourage calmness, focus, and introspection.

## • Photography:

• Peaceful writing spaces (desks, natural light, notebooks).

• Handwriting close-ups, journaling tools like pens, coffee mugs, and plants.

#### • Icons:

- Minimalistic and consistent set for navigation (e.g., dashboard, entries, settings).
- Mood icons (happy, calm, sad, anxious) for emotion tagging.

## Hero Images:

• A banner on the homepage with an image of someone writing or a journal lying open beside a cup of tea/coffee.

## **Applying Visual Design to Pages**

## a. Home Page

- Banner Area: Hero image with a motivational tagline like "Reflect. Write. Grow."
- Color Scheme: Deep Teal for buttons and headers; Sky Blue and Cream for the background.
- Typography: Bold Playfair Display for headlines; Open Sans for supporting text.

### b. About Page

- Soft storytelling vibe using ambient images of journaling spaces.
- Visual emphasis on values like mindfulness, creativity, and personal growth.

## c. Journal Dashboard / Entry Page

- Card-style layout for journal previews with mood tags and dates.
- Entry area includes a rich-text editor with formatting options.
- Hover or subtle animation effects on entry interactions.

## d. Testimonials / Blog Page

- Clean, elegant display of user stories or mental health articles.
- Use of sliders or expandable cards for scrolling through feedback or articles.

#### e. Contact Page

- Simple contact form styled with light colors and soft shadows.
- Icons for email, support links, and an optional embedded map (for future offline locations or teams).

## f. Login and Registration Pages

- Minimalist form-centered layout.
- Background in Sky Blue with form cards in Cream.

• Buttons in Deep Teal or Coral Pink for a friendly, branded feel.

#### 4. Layout and Design Hierarchy

The website layout is crafted with a focus on clarity, usability, and emotional resonance, using a structured and visually appealing hierarchy:

#### 1. Headers and Banners

- a. Positioned at the top with Deep Teal (#014D4E) for strong branding presence.
- b. Includes logo and project name ("MyJournal") with elegant serif typography for an inviting feel.
- c. Hero section with a compelling tagline and intro text to engage visitors immediately.

#### 2. Navigation Bar

- a. Sticky and minimal to provide consistent access across the site without distraction.
- b. Uses clear, bold text links with hover effects to enhance usability.
- c. Links to key pages: Home, About, Login, Register.

#### 3. Sections and Grids

- a. Sections are broken visually using soft background shades like Sky Blue (#D7F0F7) and Cream (#F9F9F9).
- b. Content areas are laid out using card-based grids to organize features (e.g., mood tracking, journal editor).
- c. Adequate padding and spacing to prevent clutter and ensure scannability.

#### 4. Call-to-Action (CTA) Buttons

- a. Highlighted using Coral Pink (#F67280) for immediate visibility.
- b. Placed strategically in hero sections and feature cards to guide users to "Start Journaling", "Login", or "Sign Up".
- c. Designed with rounded corners and hover effects to encourage interaction.

#### 5. Expected Impact of Visual Direction

#### 1. Enhanced Engagement

- a. Warm, pastel tones provide a calming atmosphere that encourages exploration and interaction.
- b. Rich visuals and friendly design invite users to stay longer and interact more deeply with the content.

## 2. Stronger Branding

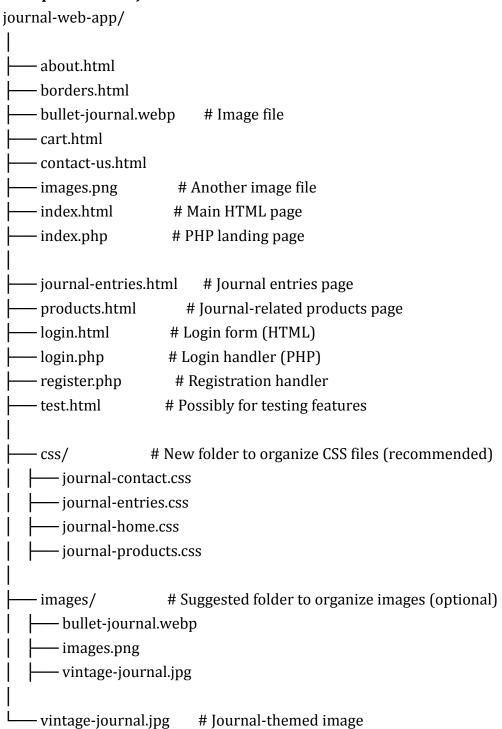
- a. Consistent use of color palette, typography, and spacing builds a recognizable identity for the journaling platform.
- b. Serif headers paired with modern sans-serif body text create a balance of elegance and readability.

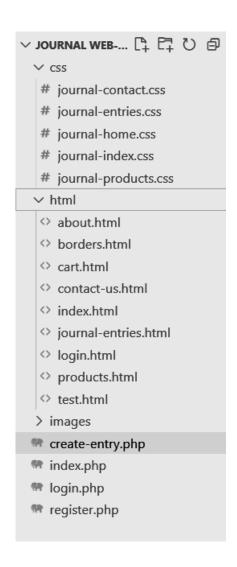
#### 3. Better Retention

a. Users feel emotionally comfortable and supported by the visual tone, increasing the likelihood of return visits.

- b. Simple, predictable layouts reduce cognitive load and improve overall user satisfaction.
- 4. Higher Conversions
  - a. CTAs are placed exactly where users are most likely to act (hero area, feature sections).
  - b. Form accessibility and clean interface help convert visitors into registered users or active journalers.

## 7. Map out the Project structure





## 8. Plan the content for each page

The website will include a minimum of 5 core pages, along with additional Login and Registration pages. This plan details the content for each page.

## 1. Home Page

- Purpose:
  - Welcome visitors.
  - Highlight journaling features and app benefits.

#### Content Plan:

- Header:
  - Logo: A stylized pen/book icon.
  - o Navigation menu: Home, About, Dashboard, Testimonials, Contact.
  - Login/Sign-Up button on the top right.
- Hero Section:
  - Background image of peaceful writing space or open notebook with a cup of tea.
  - o Tagline: "Reflect. Write. Grow."
  - o CTA Button: "Start Journaling Now"
- Introduction Section:
  - Brief introduction about the app's purpose (1-2 sentences).

- CTA: "Learn More About Us" linking to the About page
- Special Offer/Highlight Section:
  - Carousel or grid of featured drinks or offers.
  - o Text: "Try Our New Seasonal Flavors!".
- Footer:
  - Quick links, social media links, contact information.

## 2. About Page

- Purpose:
  - Share the story, vision, and people behind the journaling application.

#### Content Plan:

- Header: (same as home page).
- About Us Section:
  - Story behind the app: "Created in 2025 to support mindfulness and productivity."
  - o Emphasize values like privacy, expression, and well-being.
- Meet the Team Section:
  - Photos and short bios of the founders or team members.
- Special Features Section:
  - o "Why Choose Us?"
  - Highlight USPs like encryption, customizable moods, and accessibility.
- Footer: (same as home page).

## 3. Products Page

- Purpose:
  - Display journaling tools and interface options.
- Content Plan:
  - Header: (same as home page).
- Menu Sections:
  - o Categories: Mood Tracker, Rich Text Entry, Search & Filter, Calendar View.
  - o Tiles/cards with icons or mini-previews.
- Highlights Section:
  - Carousel showing Top Features (e.g., "Dark Mode", "Daily Quotes").
- CTA Section:
  - Button: "Create New Entry" (for logged-in users) or "Get Started" (for guests).
- Footer: (same as home page).

#### 4. Testimonials Page

#### Purpose:

• Build trust by showcasing feedback from happy customers.

#### Content Plan:

- Header: (same as home page).
- Customer Feedback Section:
  - Quotes or testimonials from existing customers.
  - o Option to display Google or Yelp reviews.
  - Use star ratings for visual appeal.
- Submit a Testimonial:
  - Simple form to allow visitors to submit reviews.
- Footer: (same as home page).

## 5. Contact Page

#### Purpose:

• Allow customers to reach out easily for inquiries, reservations, or feedback.

#### Content Plan:

- Header: (same as home page).
- Contact Form:
  - o Name, Email, Subject, Message.
  - o Submit button with form validation.
- Operating Hours Section:
  - o Business hours listed clearly.
- Footer: (same as home page).

#### 6. Login Page

## Purpose:

Enable existing users to log in to their accounts.

#### Content Plan:

- Form:
  - o Email and Password fields.
  - Submit button.
- Forgot Password Link:
  - Redirects to password recovery.
- CTA:
  - Link to the Registration page: "Don't have an account? Sign Up Now!".

#### 7. Registration Page

## Purpose:

• Allow new users to register for an account.

#### Content Plan:

- Form Fields:
  - o Full Name.
  - o Email.
  - o Password and Confirm Password.
- Form Validation:

- o Password requirements.
- Submit Button:
  - Validates data and submits.
- Footer: (same as home page).

#### 9. Add ideas for content, images & layout

Below are detailed ideas for crafting the content, selecting images, and structuring the layout for a journaling website with at least five pages and login/registration functionality.

#### 1. Home Page

#### Layout Ideas:

- Header Section:
  - Fixed navigation bar that stays in view as users scroll.
  - Logo on the left: Stylized icon of a pen, book, or heart with MyJournal text.
  - Menu items in the center: Home, About, Dashboard, Testimonials, Contact.
  - Login/Register buttons on the right for quick access.
- Hero Section:
  - Full-width background image of a peaceful writing scene, a cozy desk, or an open journal with a coffee mug.
  - Overlay text with a calming tagline like:
  - o "Reflect. Write. Grow."
  - o Primary CTA Button: "Start Journaling" or "Try a Demo"
- Featured Section:
  - Use cards or tiles to highlight 3–4 core features:
    - "Mood Tracker"
    - "Rich Text Editor"
    - "Writing Streaks"
    - "Privacy & Encryption"
  - Each feature block includes a soft pastel icon, short description, and optional "Learn More" button.

#### Content Ideas:

- Short, catchy welcome message.
- Announcements for daily prompt or upcoming features.
- Direct link to the menu page.

#### Image Ideas:

- Peaceful journaling scenes with natural light
- Overhead view of notebook and pen on a wooden desk
- Minimalist mood board-style flat lay

#### 2. About Page

## Layout Ideas:

• Story Section:

- A timeline or column layout telling the story of the app's journey and evolution.
- Use dividers or icons to separate milestones.
- Team Section:
  - Grid layout featuring team member images and short bios.
- Feature Section:
  - Icons and text showcasing special features .

#### Content Ideas:

- Mission statement, history, and values.
- Insights about sourcing and partnerships.
- Emphasis on community connection.

#### Image Ideas:

- Screenshots of early prototypes.
- Journaling tools (pens, books, cozy nooks)

#### 3. Products/Services Page

#### Lavout Ideas:

- Categories Section:
  - o Organize the page into categories such as *Personal, Work, Travel,* and *Wellness*.
  - Each category displays journal entries with titles, brief descriptions, timestamps, and mood tags.
- Highlight Section:
  - A slider showcasing featured entries or user favorites for quick inspiration and easy access.
- CTA Section:
  - Order Now or Learn More buttons under each item.

#### Content Ideas:

- The *MyJournal* dashboard offers a Rich Text Editor for expressive writing, a Mood Tracker to log and reflect on emotions, a Calendar View to visually explore past entries, and Search Filters to quickly find journals by keyword, mood, or date.
- Highlight USPs.

#### Image Ideas:

- Mood selection interface (emojis or color wheels)
- Calendar-style entry overview

#### 4. Testimonials/Reviews Page

## Layout Ideas:

- Simple contact form with fields: **Name, Email, Subject, Message**.
- Clear validation and submission confirmation.

#### Content Ideas:

• A warm, human-friendly message like: "We'd love to hear your feedback or answer your questions!"

• Include links to an FAQ or Help Center.

#### Image Ideas:

- Iconography for contact methods (email, message, support).
- Calm, thematic illustrations representing help and community.

#### 5. Contact Page

#### Layout Ideas:

- Form Section:
  - Minimalist centered form layout.
  - Side panel or banner with brand logo or emotional imagery (e.g., person journaling).
- Info Section:
  - Use icons to display the address, phone number, and operating hours.

#### Content Ideas:

- A friendly "We'd love to hear from you!" message.
- FAQs for common inquiries.

## Image Ideas:

- Stylized illustrations of journaling tools or peaceful writing moments.
- Background with a light pastel overlay and subtle textures.

#### 6. Login Page

## Layout Ideas:

- Centered form layout with clean spacing.
- Password strength indicator and helpful tooltips.

#### Content Ideas:

- Tagline: "Create your account and start writing your story today."
- Fields: Full Name, Email, Password, Confirm Password.
- Checkbox for agreeing to terms and optionally subscribing to journaling tips.

## Image Ideas:

- Illustration of a coffee cup or beans.
- Background image with a transparent overlay for text fields.

#### 7. Registration Page

## Layout Ideas:

- Centered form layout with clean spacing.
- Password strength indicator and helpful tooltips.

#### **Content Ideas:**

- Tagline: "Create your account and start writing your story today."
- Fields: Full Name, Email, Password, Confirm Password.

Checkbox for agreeing to terms and optionally subscribing to journaling tips

#### Image Ideas:

- Welcome banner featuring someone writing in a journal.
- Soft illustrations/icons (e.g., pen for name, lock for password).

## 8. Visual Design Ideas for All Pages:

#### Colors:

- Warm pastels: blush pink, pale peach, soft ivory, dusty lavender, and muted teal.
- Highlight color: coral pink or muted green for CTAs.

## Fonts & Typography:

- Use a warm, inviting font for headers (e.g., Playfair Display).
- Clean sans-serif font for body text (e.g., *Lato* or *Roboto*).

#### Logos:

- Icon-based: pen tip, heart, open journal styled simply.
- Typography: "MyJournal" in an elegant serif with optional hand-drawn touch.

## Images:

- High-quality, calm lifestyle images: writing desks, natural light, journaling moments.
- Consistent illustration style across features and pages (flat, pastel-themed).
- Icons that match the tone: simple, soft-edged, and expressive.

#### 10. Determine your site structure or Create content for your core website pages:

- a. Home page
- b. About page
- c. Product/Service page
- d. Testimonial/review page
- e. Contact page
- f. Starter blog posts

#### 1. Home Page

The home page serves as the introduction to the journaling website and provides navigation to the key sections of the website.

#### Sections and Content:

- Header:
  - Logo: A stylized pen or book icon with the brand name "MyJournal".
  - Navigation Links: Home, About, Dashboard, Testimonials, Contact.
  - Call-to-Action Button: "Start Journaling" or "Sign Up" (links to Registration page).
- Hero Section:
  - Full-width background image of a cozy journaling scene (e.g., open journal, peaceful workspace).

- o Text Overlay: "Reflect. Write. Grow."
- o CTA Button: "Start Your Journey" or "Explore Features"...
- About Section (Teaser):
  - o Short paragraph introducing MyJournal and its benefits for personal growth.
  - Link to the full About page.
- Product Highlights Section:
  - Grid of 3–4 key features: "Mood Tracker," "Rich Text Editor," "Calendar View," "Writing Streaks."
  - o Icons and short descriptions with optional "Learn More" buttons.
- Social Proof Section (Testimonial Teaser):
  - Snippets from real user reviews with a link to full Testimonials page.
- Footer:
  - Quick navigation links, social media icons, contact email, and copyright info

#### 2. About Page

Share the vision, background, and team behind MyJournal.

Sections and Content:

#### 1. Introduction

- Overview of *MyJournal*'s story, mission, and core values.
- "Founded in 2025 with a passion for mindfulness, creativity, and emotional well-being, MyJournal empowers individuals to reflect, write, and grow in a safe digital space."
- Emphasizes values such as privacy-first design, self-expression, and a clutter-free user experience.

#### 2. Meet the Team

- Grid layout featuring core team members:
  - o Photos, names, and short bios.
  - Roles include: Developers, UX Designers, Content Writers, and Mental Health Advisors.
- Highlight each person's contribution to the app:
  - "Built with care by writers, developers, and wellness advocates who journal themselves."

#### 3. Our Promise

• Communicate MyJournal's commitment to:

- o **Data Privacy** Secure, encrypted journaling experience.
- Wellness-First Design Calm visuals and a mental health-friendly UI.
- Accessibility Mobile-responsive and distraction-free writing flow.
- **Mindful Features** Mood tracking, reflection prompts, and writing streaks.

## 4. Location Section (Optional)

- If relevant, mention:
  - Community partnerships, online journaling events, or wellness collaborations.
  - Include a Google Map embed for physical workshops or community pop-ups.
  - Clearly state any office hours or support response times.

## 3. Product/Service Page

## Purpose:

Showcase the core journaling features of *MyJournal* with clear descriptions and an easy way for users to interact with or explore each tool.

**Sections and Content:** 

• Journaling Tools Section

Categories of Features (displayed in tabs or as cards):

- Rich Text Editor: Allows users to format entries using bold, italic, bullet points, and headers for expressive writing.
- Mood Tracker: Lets users select emotions or moods from a visual palette, helping track emotional trends over time.
- Calendar View: Interactive timeline showing past journal entries by date.
- Search & Filter: Find specific entries using keywords, dates, or mood tags.

#### **Writing Resources Section**

- Highlight supportive tools and add-ons that enhance the journaling experience:
- Daily Prompts: Short questions or affirmations to inspire consistent writing.
- Dark Mode: Soothing dark theme for late-night writing sessions.
- Writing Streaks & Stats: Visual analytics showing entry frequency and mood progres
- Footer (same as Home Page): The footer includes quick links to key pages, social media icons, and essential contact and support information.

#### 4. Testimonials/Review Page

This page displays positive customer feedback to build trust with potential customers.

**Sections and Content:** 

Customer Reviews:

- Carousel or grid of reviews, each showing testimonials from the customer, and their name.
- "Submit Your Review" links to a simple feedback form (Name, Email optional, Testimonial).

#### • Featured Reviews:

- Highlight select reviews from **external sources** like App Store, Play Store, or social communities (e.g., Reddit, journaling forums).
- Reviewing Process Section:
  - Brief statement explaining transparency and authenticity, such as:
  - "All reviews are submitted voluntarily and reflect real user experiences. Featured reviews are selected based on relevance and helpfulness."

## 5. Contact Page

The contact page allows customers to reach out to the devlopers directly and learn more about visiting.

**Sections and Content:** 

- Contact Form:
  - Name, email, message fields for direct inquiries.
  - o "Submit" button.
- Social Media & Address Section:
  - Social Media Icons linking to Instagram, Twitter, LinkedIn, or Medium (for blog posts).
- Support Information:
  - Section to contact customer support, along with a few FAQs.

## 6. Starter Blog Posts

#### **Purpose:**

To connect with users and share valuable content about journaling techniques, emotional well-being, creativity, and community stories related to personal growth.

## **Possible Blog Categories:**

## 1. Journaling Knowledge

- Practical articles like:
  - "How to Start a Journaling Habit That Sticks"
  - "Daily Prompts vs. Free Writing: Which Is Right for You?"

## 2. Behind the App

- Stories and spotlights on:
  - "Why We Built MyJournal"

- o "Meet the Minds Behind the Design"
- "How We Crafted a Calming Digital Writing Space"

#### 3. Wellness & Mindfulness

- Educational and supportive posts such as:
  - o "How Journaling Can Support Mental Health"
  - o "5 Prompts to Help You Navigate Stress"

## 4. Community Voices

- Featuring real users or community contributions:
  - o "MyJournal User Spotlight: How Journaling Helped Me Grow"
  - "User-Submitted Prompts to Spark Your Creativity"

## **Blog Post Structure:**

- Title
- Featured image or illustration
- Short introductory paragraph
- "Read More" link to full content
- Optional comment section and social sharing buttons

#### 7. Login & Registration Pages

These pages allow users to create accounts for order tracking, loyalty programs, and to receive personalized updates.

- Login Page:
  - User credentials fields: Username/email, password.
  - Button to submit login details.
  - o "Forgot password?" link.
- Registration Page:
  - Fields to sign up: Name, email, password.
  - Option to subscribe to a newsletter or loyalty program.

#### 8. Overall Website Structure Map - MyJournal

- Home Page: Introduction to the platform with links to journaling features, user testimonials, and writing motivation content.
- About Page: History of MyJournal, its mission, core values, and profiles of the team behind the app.
- Product/Service Page: Overview of journaling tools such as the editor, mood tracker, calendar view, and search filters.

- Testimonials/Review Page: User feedback section with a carousel of reviews and a form to submit reflections or praise.
- Contact Page: Contact form, support information, and optional map for in-person events or workshops.
- Blog Section: Informative and reflective articles on journaling, mental wellness, productivity, and user stories.
- Login/Registration Page: Secure user login and registration to access private journaling features and personalization tools.

## 11. Create and collect design elements

These design elements define your brand personality and help customers feel what your brand represents through the use of:

- a. Colors
- b. Fonts and typography
- c. Logos
- d. Images and photos

Design Elements Defining Brand Personality for Journaling Web App Website:

The design elements of a website are vital in creating an identity and establishing a strong emotional connection between the brand and its visitors. For your journaling web app, the goal is to create a space that feels inviting, calming, and professional, much like the experience users would have in a safe, reflective writing environment. Here's a breakdown of how the design elements for your website can define and enhance your brand's personality.

## 1. Colors

- Colors have the power to influence mood and perceptions. The color palette should reflect your journaling app's peaceful, supportive atmosphere, as well as its values (such as mindfulness, simplicity, and emotional safety).
- Primary Colors: Blush Pink (#FADADD): This soft pink tone provides warmth and emotional resonance. Ideal for highlights, mood tags, or accents. Pale Peach (#FFE5B4): A gentle pastel perfect for backgrounds and UI panels, offering a soft and inviting canvas. Warm Ivory (#FFF8E7): A neutral tone that works well for journaling cards, forms, and secondary content areas.
- Accent Colors: Dusty Lavender (#D8B4DD): A subtle, calming purple used for hover effects, dividers, and interface enhancements. Muted Teal (#A0D6B4): Great for call-to-action buttons, navigation menus, and section headers.

 Psychological Impact: These colors communicate peace, self-care, and trustworthiness—creating a safe digital space for users to explore their thoughts and feelings.

# 2. Fonts and Typography

- The typography should convey clarity, emotional calm, and an inviting tone.
- Heading Font: Playfair Display (serif) or Lora: Elegant fonts with personality that work well for headlines and motivational taglines.
- Body Font: Open Sans or Roboto (sans-serif): Clean, modern, and highly readable. Ideal for entry text, descriptions, and instructions.
- Font Weights: Use bold or semi-bold weight for headings to create visual hierarchy, and regular font weights for text to ensure ease of reading.
- Impact: The mix of serif and sans-serif fonts maintains a balance between creativity and readability—perfect for a journaling app focused on user expression and clarity.

## 3. Logo

- Your logo represents the visual identity of your journaling app and sets the tone for your brand's story.
- Logo Design: The logo should be simple but memorable, combining visual elements that represent journaling. Consider using a stylized pen, an open book, or a heart. These visuals should clearly associate the logo with introspection, writing, and wellness.
- Color Palette for the Logo: Use blush pink or muted teal as primary colors, complemented by ivory or pale peach. These colors maintain brand consistency and emotional softness.
- Logo Usage: The logo should be placed prominently at the top of each page in the header. Ensure its scalability for use on mobile, social media, app icons, and loading screens.
- Impact: The logo serves as the face of your brand, instantly giving users a sense of trust, warmth, and clarity when they arrive at your platform.

# 4. Imagery and Photos

- Imagery on the journaling website builds a stronger emotional connection by reflecting the writing experience.
- Interface Imagery: High-quality screenshots of the dashboard, mood tracker, and writing interface. Promotional Photography: Peaceful writing spaces, notebooks,

journaling moments, and calm workspaces. Lifestyle Imagery: People writing alone, reflecting quietly, or journaling in cozy spaces (indoor or outdoor).

- For the homepage, include a banner or hero image that captures journaling in a peaceful environment. For the about page, use images of the team or candid design/development moments.
- Impact: Thoughtful, emotion-driven visuals help users visualize the experience of writing, making the site more relatable and engaging.

## 5. Interactive Elements and Buttons

- To ensure functionality and engagement, interactive elements should be intuitive, minimalist, and emotionally aligned with the theme of journaling.
- Navigation Buttons: Ensure that buttons like "Start Journaling," "Create New Entry," and "Track Mood" are clear and accessible. Use accent colors like muted teal or dusty lavender for consistency.
- Hover Effects: Subtle transitions, background fades, or light shadows to indicate clickable elements without distracting from the content.
- Icons: Clean, minimalistic icons representing features like journal, mood tracker, calendar, and user settings. These icons should be consistent in color and style.
- Use themed icons like thought bubbles for prompts, a pen for writing, or a heart for favorites.
- Impact: Interactive elements support smooth navigation and elevate user experience, reinforcing the brand's promise of calm, clarity, and reflection.

## **Conclusion:**

The Journaling Web App project serves as a comprehensive exercise in understanding and applying web development fundamentals. Through careful planning and implementation of design elements, content organization, and user experience considerations, the assignment ensures a functional, visually appealing, and user-friendly platform.

By creating essential pages like the Home, About, Product/Service, Testimonial, Contact, and Login/Registration pages, the website provides users with intuitive navigation and engaging content. The visual direction, including the use of harmonious colors, typography, logos, and images, helps reinforce the brand's identity and appeal to the target audience.

This assignment highlights the importance of a structured approach to web design—starting with setting goals and mapping out the project structure, followed by planning and designing the content.

# **Experiment No.2**

## 2. HTML

# **Problem Statement:**

- A. Create a detailed home page for the journaling web app.
- B. Create a detailed Dashboard/Feature Page for the journaling web app, listing all available tools categorized appropriately.
- C. Create a Journal Entry Management Page that allows users to review, edit, and delete their saved entries before finalizing or exporting..
- D. Create an About Us Page that provides detailed information about the journaling platform's vision, story, and team.
- E. Create a Contact Page that allows users to easily get in touch with the team through a form.
- F. Design and implement a registration form for new users to create a personal journaling account.
- G. Design and implement a login form for existing users to securely access their private journal entries.

# **Objective:**

To design and develop a fully functional, user-friendly journaling web application that allows users to reflect, write, and manage their thoughts digitally. The project aims to implement web development principles through structured planning, visual design, responsive layouts, and interactive features that support personal growth and mental wellness.

# **Theory**:

**HTML Tags and Their Theory** 

1. <!DOCTYPE html>

Purpose: Declares the document type and HTML version. It helps browsers render the page correctly. Used at: The very top of every HTML file.

2. <html>

Purpose: Root element that wraps all content of an HTML document.

Attributes: Usually includes lang="en" to specify the language.

3. <head>

Purpose: Contains meta-information about the page (not visible to the user). Common Contents:

- <title> Sets the page title shown on the browser tab.
- link> Used to link external stylesheets.
- <meta> Describes page metadata like charset, viewport, etc.

## 4. <body>

Purpose: Contains all the content that will be rendered on the page – text, images, buttons, etc.

## 5. <header>

Purpose: Defines the introductory part of the document/page.

Commonly Contains: Site logo, navigation bar (<nav>), or site name/title (<h1>).

#### 6. <nav>

Purpose: Represents the navigation links section of a webpage.

Usually Contains: Multiple <a> (anchor) tags for links to other sections/pages.

## 7. <h1> to <h6>

Purpose: Headings for organizing content.

- <h1> is the most important, often used for main titles.
- <h3> (as used in your About page) is a subheading.

## 8.

Purpose: Paragraph tag used to group blocks of text.

## 9. <img>

Purpose: Embeds images into the HTML.

Attributes:

- src Path to the image file.
- alt Alternate text if the image fails to load.

## 10. <form>

 $Purpose: Collects\ user\ input\ through\ interactive\ controls\ like\ input\ fields\ and\ buttons.$ 

Attributes:

- action URL where form data is sent.
- method HTTP method used (usually GET or POST).

## 11. <label>

Purpose: Defines a label for an <input> field for better accessibility.

## 12. <input>

Purpose: Accepts various types of user input.

Types used:

- text For entering text.
- password For hidden password entry.

- submit A button to submit the form.
- 13. <button>

Purpose: Clickable button. Can be used for different actions like toggling password visibility.

14. <textarea>

Purpose: Multiline input for longer messages (used in Contact Us page).

15. <div>

Purpose: A block-level container used to group elements for styling/layout.

16. <script>

Purpose: Used to embed or reference JavaScript code.

17. <link>

Purpose: Links external resources like stylesheets (journal.css in your project).

## Summary

```
Tag – Description
<html> – Root element
<head> – Metadata & external links
<body> – Page content
<header> – Top section with logo/nav
<nav> – Navigation bar
<h1> to <h6> – Headings (titles, subtitles)
 – Paragraphs
<form> – User input forms
<input>, <button>, <textarea> – Form elements
<label> – Describes input fields
<img> – Images
<div> – Generic container
<script> – JavaScript
link> – External stylesheet
```

```
A. Home page:

code:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0"/>
<title>MyJournal - Home</title>
</head>
<body>
<header>
<h1>MyJournal</h1>
<nav>
<a href="index.html">Home</a>
<a href="about.html">About</a>
<a href="login.html">Login</a>
<a href="register.html">Sign Up</a>
</nav>
</header>
<section class="hero">
<h2>Your Daily Space to Reflect</h2>
Write, reflect, and grow with MyJournal. Safe, private, and beautifully simple.
<button class="cta-button">Start Journaling</button>
</section>
<section class="section">
<div class="cards">
<div class="card">
<h3>Track Your Mood</h3>
Log your emotions with mood tags and visual cues to understand your mental journey.
</div>
<div class="card">
<h3>Search Your Thoughts</h3>
Use filters and keywords to easily find past entries by date or content.
```

```
</div>
<div class="card">
<h3>Rich Text Editor</h3>
Format your journal with bold, italics, bullet lists and more.
</div>
</div>
</section>
<footer>
© 2025 MyJournal. All rights reserved.
</footer>
```

A. Index/Home page output:

# **MyJournal**

Home About Login Sign Up

# Your Daily Space to Reflect

Write, reflect, and grow with MyJournal. Safe, private, and beautifully simple.

Start Journaling

## Track Your Mood

Log your emotions with mood tags and visual cues to understand your mental journey.

## Search Your Thoughts

Use filters and keywords to easily find past entries by date or content.

# Rich Text Editor

Format your journal with bold, italics, bullet lists and more.

© 2025 MyJournal. All rights reserved.

```
B. menu/product page:
code:
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>HeadSpace - Journaling Products</title>
k rel="stylesheet" href="journal-products.css">
</head>
<body>
<header class="navbar">
<a href="index.html">Home</a>
<a href="about.html">About Us</a>
<a href="journals.html">Your Journals</a>
<a href="products.html">Products</a>
<a href="contact.html">Contact Us</a>
<a href="login.html" class="btn">Login</a>
<a href="cart.html" class="btn">Cart<span id="cart-products"></span></a> 
</header>
<section class="product-hero">
<h1>Discover the Perfect Journaling Tools</h1>
```

```
Find beautifully designed journals, writing tools, and guided prompts to enhance your journaling
experience.
</section>
<section class="product-list1">
<div class="product-item">
<img src="vintage-journal.jpg" alt="Classic Leather Journal">
<h2>Vintage Paperback Journal</h2>
A premium handcrafted journal with high-quality paper.
<span class="price">$29.99</span>
<button onclick='addProduct({name: "Classic Leather Journal", price: 29.99})'>Add to Cart</button>
</div>
<div class="product-item">
<img src="bullet-journal.webp" alt="Guided Self-Discovery Journal">
<h2>Guided Self-Discovery Journal</h2>
Designed to help you explore your thoughts with structured prompts.
<span class="price">$24.99</span>
<button onclick='addProduct({name: "Guided Self-Discovery Journal", price: 43.45})'>Add to Cart</button>
</div>
<div class="product-item">
<img src="vintage-journal.jpg" alt="Elegant Fountain Pen">
<h2>Elegant Fountain Pen</h2>
Enhance your writing experience with this smooth-flowing ink pen.
<span class="price">$14.99</span>
<button onclick='addProduct({name: "Elegant Fountain Pen", price: 14.99})'>Add to Cart</button>
</div>
</section>
<section product-list2>
```

```
<div class="product-item">
<img src="bullet-journal.webp" alt="Dream Catcher">
<h2>Dream Catcher</h2>
Enhance your writing experience with this bullet journal.
<span class="price">$9.04</span>
<button onclick='addProduct({name: "Dream Catcher", price: 9.04})'>Add to Cart</button>
</div>
<div class="product-item">
<img src="bullet-journal.webp" alt="Diary">
<h2>Diary</h2>
Enhance your writing experience with this bullet journal.
<span class="price">$9.04</span>
<button onclick='addProduct({name: "Diary", price: 9.04})'>Add to Cart</button>
</div>
<div class="product-item">
<img src="vintage-journal.jpg" alt="Heart bound">
<h2>Heart bound</h2>
Enhance your writing experience with this bullet journal.
<span class="price">$9.04</span>
<button onclick='addProduct({name: "Heart bound", price: 9.04})'>Add to Cart</button>
</div>
</section>
</body>
</html>
```

B. menu/product page output:

- Home
- About Us
- Your Journals
- Products
- Contact Us
- Login
- Cart

# Discover the Perfect Journaling Tools

Find beautifully designed journals, writing tools, and guided prompts to enhance your journaling experience.



```
C. cart page:
code:<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>HeadSpace - Journaling Products</title>
<link rel="stylesheet" href="journal-home.css">
</head>
<body>
<header class="navbar">
<a href="index.html">Home</a>
<a href="about.html">About Us</a>
<a href="journals.html">Your Journals</a>
<a href="products.html">Products</a>
<a href="contact.html">Contact Us</a>
<a href="login.html" class="btn">Login</a>
<a href="cart.html" class="btn">Cart<span id="cart-products"></span></a> 
</header>
<h3>Cart products from local Storage</h3>
<div class="cart-products">
</div>
<script>
// Get cart items from localStorage or set to an empty array if null
```

```
let cart2 = JSON.parse(localStorage.getItem('cart')) || [];
let total = 0;
// Calculate total price
cart2.forEach(item => {
total += item.price;
});
console.log("Total Price:", total);
// Update cart count beside "Cart" in the navbar
const cartCount = document.getElementById("cart-products");
cartCount.textContent = `(${cart2.length})`;
// Select cart display container
const cartProducts = document.querySelector('.cart-products');
// Display each product
cart2.forEach(item => {
const productDiv = document.createElement('div');
productDiv.classList.add("product-item");
const productName = document.createElement('h2');
productName.textContent = item.name;
productDiv.appendChild(productName);
const productPrice = document.createElement('h5');
productPrice.textContent = "Price: $" + item.price.toFixed(2);
productDiv.appendChild(productPrice);
cartProducts.appendChild(productDiv);
});
// Display total price section
const priceContainer = document.createElement('div');
priceContainer.classList.add('cart-price');
```

```
const priceTitle = document.createElement('h2');
priceTitle.textContent = "Price Details:";
priceContainer.appendChild(priceTitle);
const totalAmount = document.createElement('h5');
totalAmount.textContent = "Total Cart Amount: $" + total.toFixed(2);
priceContainer.appendChild(totalAmount);
cartProducts.appendChild(priceContainer);
// Function to add product to cart
function addProduct(product) {
let cart = JSON.parse(localStorage.getItem('cart')) || [];
// Check if the product already exists in the cart
if (!cart.find(item => item.name === product.name)) {
cart.push(product);
localStorage.setItem("cart", JSON.stringify(cart)); // Store updated cart in localStorage
}
// Update the cart count in the navbar
cartCount.textContent = `(${cart.length})`;
}
</script>
</body>
</html>
```

C. cart page output:

- Home
- About Us
- Your Journals
- Products
- Contact Us
- Login
- <u>Cart(2)</u>

# Cart products from local Storage

# **Guided Self-Discovery Journal**

Price: \$43.45

# Classic Leather Journal

Price: \$29.99

## **Price Details:**

Total Cart Amount: \$73.44

```
D. about us page:

code:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>About Us</title>

</head>

<body>

<header class="navbar">
```

```
<h1>MyJournal</h1>
<nav>
<a href="index.html">Home</a>
<a href="about.html">About</a>
<a href="login.html">Login</a>
<a href="register.html">Sign Up</a>
<a href="products.html">Products</a>
</nav>
</header>
<div class="about-page">
<h3>About Us</h3>
At HeadSpace, we believe in the transformative power of journaling. Our goal is to provide individuals
with the tools they need to reflect, set goals, and explore their creativity. Through journaling, we aim to help
people improve their mental well-being, gain clarity, and achieve their dreams.
We offer a wide range of beautifully crafted journals, from traditional leather-bound ones to modern
guided journals that help with self-discovery. Whether you're looking to write your thoughts, track your
habits, or record your memories, we have the perfect journal for you.
<h4>Our Mission</h4>
We are committed to helping people unlock their inner potential by providing them with the right tools to
document their journey. Our mission is to inspire creativity, mindfulness, and self-reflection in people of all
ages and backgrounds.
<h4>Why Journaling?</h4>
Journaling is more than just writing; it's a practice that enhances self-awareness, reduces stress, and
boosts creativity. It's a personal space where you can reflect on your thoughts, express your feelings, and make
sense of the world around you. Our products are designed to support you through every step of your
journaling journey.
</div>
<div class="about-img">
<img src="images.png" alt="Image representing journaling or creativity" />
</div>
<div class="contact-section">
```

```
<h4>>Get in Touch</h4>
If you have any questions or need assistance with your journaling journey, feel free to reach out to us. We're always here to help!
Email: <a href="mailto:support@headspace.com">support@headspace.com</a>
Follow us on social media:
<a href="https://twitter.com/HeadSpaceJournals">Twitter</a>
<br/>
<br
```

D. about us page output:

# **MyJournal**

Home About Login Sign Up Products

#### About Us

At HeadSpace, we believe in the transformative power of journaling. Our goal is to provide individuals with the tools they need to reflect, set goals, and explore their creativity. Through journaling, we aim to help people improve their mental well-being, gain clarity, and achieve their dreams.

We offer a wide range of beautifully crafted journals, from traditional leather-bound ones to modern guided journals that help with self-discovery. Whether you're looking to write your thoughts, track your habits, or record your memories, we have the perfect journal for you.

#### Our Mission

We are committed to helping people unlock their inner potential by providing them with the right tools to document their journey. Our mission is to inspire creativity, mindfulness, and self-reflection in people of all ages and backgrounds.

#### Why Journaling?

Journaling is more than just writing; it's a practice that enhances self-awareness, reduces stress, and boosts creativity. It's a personal space where you can reflect on your thoughts, express your feelings, and make sense of the world around you. Our products are designed to support you through every step of your journaling journey.



#### Get in Touch

If you have any questions or need assistance with your journaling journey, feel free to reach out to us. We're always here to help!

Email: support@headspace.com

Follow us on social media:

Twitter Instagram Facebook

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# Code:

E. contact us page:

code:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Contact Us - MyJournal</title>
 <link rel="stylesheet" href="journal.css">
</head>
<body>
 <header>
   <h1>MyJournal</h1>
   <nav>
     <a href="index.html">Home</a>
     <a href="about.html">About</a>
     <a href="login.html">Login</a>
     <a href="register.html">Sign Up</a>
     <a href="products.html">Products</a>
    </nav>
 </header>
 <section class="hero">
   <h2>Contact Us</h2>
   We'd love to hear from you! Please fill out the form below to get in touch.
 </section>
 <form action="/submit-contact" method="post">
   <label for="name">Full Name</label>
   <input type="text" class="box" id="name" name="name" placeholder="Your Name" required>
   <label for="email">Email Address</label>
   <input type="email" class="box" id="email" name="email" placeholder="Your Email" required>
```

```
<label for="message">Your Message</label>
    <textarea id="message" class="box" name="message" rows="5" placeholder="Write your message here..."
required></textarea>
    <input type="submit" id="submit-btn" value="Send Message">
    </form>
    <section class="message-section">
         Thank you for reaching out! We aim to respond to all queries within 24–48 hours.
</section>
```

</html>

E. contact us page output:

# **MyJournal**

Home About Login Sign Up Products

## **Contact Us**

We'd love to hear from you! Please fill out the form below to get in touch.

Full Name	Your Name	Ema	il Address	Your Email	Your Message
Write you	r message				
here					
	le .	Send Message			

Thank you for reaching out! We aim to respond to all queries within 24-48 hours.

```
F. registration page:
code:
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="journal.css">
<title>Registration Form</title>
</head>
<body>
<form action="/register" method="post">
<h2>Registration Form</h2>
<label for="username">User Name</label><br>
<input type="text" class="box" placeholder="Enter User name" id="username" name="username">
<br>
<label for="pass">Password</label>
<input type="password" class="box" placeholder="Enter Password" id="pass" name="pass">
<br>
<button id="show-pass" type="button">Show Password</button><br>
<input type="submit" id="submit-btn" value="Register" disabled>
<div class="msg"></div>
</form>
</body>
</html>
```

F. registration page output:

# **Registration Form**

# User Name Enter User name Password Enter Password Show Password Register

```
G. login page:

code:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<login Form</ti>

<ti><ti><login Form</p>

/body>

<form action="/login" method="post">

<h2>Login Form</h2>
</abel for="username">

<a href="box"/box"/box</a>

<a href="login" method="post">

<a href="login"
```

```
<label for="pass">Password</label>
<input type="password" class="box" placeholder="Enter Password" id="pass" name="pass">
<button id="show-pass" type="button">Show Password</button>
<input type="submit" id="submit-btn" value="Login" disabled>
<div class="msg"></div>
</form>
</body>
</html>
```

G. login page output:

# **Login Form**

User Name Enter User name	Password	Enter Password	Show Password	Login
---------------------------	----------	----------------	---------------	-------

# **Conclusion:**

The development of the MyJournal Web App has provided valuable insights into building a platform dedicated to enhancing the journaling experience. This project has successfully resulted in a user-friendly, intuitive web application that allows users to effectively manage and explore their journaling practices while offering a variety of products to elevate their writing journey.

With features like an easy-to-navigate interface, secure login system, and a product catalog to suit different journaling needs, MyJournal is designed with the user in mind. The app promotes personal reflection and self-growth through its seamless user experience and thoughtful design.

As we move forward, the goal is to continue enhancing MyJournal with additional functionalities such as personalized journaling prompts, customizable themes, and more advanced features to enrich the overall journaling experience for users. The project serves as a strong foundation for a dynamic, evolving platform that will grow alongside its user base, helping them cultivate a meaningful journaling habit.

# **Experiment No.3**

# **Problem Statement:**

## 3. CSS

- A. Enhance the layout of the *MyJournal* home page using **CSS Grid** for a clean and responsive structure.
- B. Use CSS Grid to arrange journal entries, categories, or featured sections in a well-organized layout.
- C. Style journal sections with appropriate headings, spacing, visual separators, images (if any), entry previews or descriptions, and timestamps

# **Objective:**

The objective of the *MyJournal* web application is to provide users with a simple, elegant, and interactive platform to document their thoughts, emotions, and daily experiences. By integrating a user-friendly interface, secure login system, and organized layout using modern web technologies like HTML, CSS Grid, and JavaScript, the application aims to encourage regular journaling, enhance mental well-being, and make personal reflection accessible anytime, anywhere.

# **Theory:**

This CSS file styles various elements of the *MyJournal* application, creating a soft and elegant user interface with clean layouts, pleasant colors, and responsive behavior.

:root (CSS Variables)

• **Purpose**: Defines custom properties (variables) for reuse across the stylesheet.

## Example:

CSS

--soft-pink: #fddcd3;

--button-purple: #9b8cb9;

• **Benefit**: Easy to maintain consistent theme colors.

# body

- Sets:
  - Margin for page spacing.
  - **Font family** for overall typography.
  - **Background color** using variable --soft-pink.
  - o **Text color** with --dark-text.
  - Centers all text using text-align: center.

## header

- Layout:
  - o Uses flexbox for alignment.
  - o justify-content: space-between places content on opposite ends.
  - o Rounded corners and a subtle border for style.

## header h1

- Stylized main heading:
  - Uses bold Georgia font.
  - Aligns content vertically with display: flex.

## nav a

- Navigation links:
  - o Left margin for spacing.
  - $\circ$  Text transitions to purple on hover.
  - Clean, serif styling for consistency.

# .hero

- Hero section:
  - o Centered layout with ample padding.
  - o Styled with soft-pink background.
- .hero h2 and .hero p: Define large heading and supportive tagline.

## .buttons

- A flex container for CTA buttons.
- Uses:
  - o gap for spacing.
  - o flex-wrap to ensure responsiveness.

## .message-section

- A block to display a message or highlight section.
- Uses:
  - o Cream background.
  - Centralized text.
  - o Rounded corners for visual softness.

## form

- Stylish login form:
  - o Centered using margin.
  - White background for contrast.
  - o Box shadow to give depth.
  - Uses max-width for responsiveness.
- Includes labeled input fields styled for usability.

# form label and input.box

- Clear, readable labels.
- Inputs with padding, border-radius, and box-sizing for consistency.

# #show-pass and #submit-btn

- Separate button styles:
  - o #show-pass is neutral.
  - #submit-btn uses the app's purple theme.
  - o Disabled state (:disabled) is gray and inactive.

## .msg

- Error/success messages shown after login.
- Styled in red to indicate alerts.

# **Summary of CSS Concepts Used**

Concept	Description		
CSS Variables	Reusable custom properties for consistent theming		
Flexbox	Responsive alignment of items		
Box Model	Margin, padding, border, and sizing for layout control		
Typography	Custom fonts (Georgia, Roboto, Playfair Display)		
Buttons	Styled with padding, radius, transitions		
Forms	Clean, accessible form elements		
Responsive Design	Use of max-width, flex-wrap, gap		

```
:root {
--soft-pink: #fddcd3;
--light-cream: #fcf8ed;
--button-purple: #9b8cb9;
--button-green: #6aa89d;
--dark-text: #2d2d2d;
--nav-text: #4a4a4a;
--nav-bg: #fdf6ea;
}
body {
margin: 10px;
font-family: 'Georgia', serif;
background-color: var(--soft-pink);
color: var(--dark-text);
text-align: center;
}
header {
background-color: var(--nav-bg);
padding: 1rem 2rem;
display: flex;
justify-content: space-between;
align-items: center;
border-bottom: 1px solid #e0e0e0;
border-radius: 0 0 12px 12px;
}
header h1 {
```

```
font-size: 1.8rem;
font-weight: bold;
margin: 0;
color: var(--dark-text);
display: flex;
align-items: center;
}
nav a {
margin-left: 1.5rem;
text-decoration: none;
font-weight: 500;
color: var(--nav-text);
font-family: 'Georgia', serif;
transition: color 0.3s ease;
}
nav a:hover {
color: var(--button-purple);
}
.hero {
background-color: var(--soft-pink);
padding: 4rem 2rem;
text-align: center;
}
.hero h2 {
font-size: 3rem;
margin: 0;
font-weight: 600;
```

```
font-family: 'Georgia', serif;
}
.hero p {
margin-top: 1rem;
font-size: 1.5rem;
}
.buttons {
margin-top: 2rem;
display: flex;
font-family: 'Georgia';
justify-content: center;
gap: 1rem;
flex-wrap: wrap;
}
button.cta-button {
background-color: white;
color: black;
font-family: Georgia, 'Times New Roman', Times, serif;
}
. message\text{-}section \ \{
background-color: var(--light-cream);
padding: 3rem 2rem;
text-align: center;
border-radius: 0 0 12px 12px;
}
.message-section p {
font-size: 1.5rem;
```

```
font-weight: 500;
margin: 0;
font-family: 'Georgia', serif;
}
form {
max-width: 400px;
margin: 5rem auto;
padding: 2rem;
background-color: white;
border-radius: 12px;
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
font-family: 'Roboto', sans-serif;
}
form h2 {
text-align: center;
margin-bottom: 1.5rem;
font-family: 'Playfair Display', serif;
color: var(--deep-teal);
}
form label {
display: block;
margin: 1rem 0 0.5rem;
font-weight: bold;
color: #333;
}
form input.box {
width: 100%;
```

```
padding: 0.75rem;
font-size: 1rem;
border: 1px solid #ccc;
border-radius: 8px;
box-sizing: border-box;
}
form button,
form input[type="submit"] {
margin-top: 1rem;
padding: 0.75rem 1.2rem;
font-size: 1rem;
border: none;
border-radius: 8px;
cursor: pointer;
display: block;
width: 100%;
}
#show-pass {
background-color: #eee;
color: #333;
}
#submit-btn {
background-color: var(--button-purple);
color: white;
}
#submit-btn:disabled {
background-color: #ccc;
```

```
cursor: not-allowed;
}
.msg {
margin-top: 1rem;
text-align: center;
color: #d33;
}
```

**MyJournal** 

Home

About

Login

Sign Up

Products

# **Your Daily Space to Reflect**

Write, reflect, and grow with MyJournal. Safe, private, and beautifully simple.

Start Journaling

## **Track Your Mood**

Log your emotions with mood tags and visual cues to understand your mental journey.

## **Search Your Thoughts**

Use filters and keywords to easily find past entries by date or content.

## **Rich Text Editor**

Format your journal with bold, italics, bullet lists and more.

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# **Experiment No.4**

# **Problem Statement:**

**4.** CSS

- A. Enhance the journal products page to make it user-friendly and visually appealing. Style the journal entries with appropriate margins, paddings, and input field styles to provide a seamless writing experience.
- B. Enhance and style the about us page with appropriate margins, paddings, and input field styles.
- C. Enhance and style the contact page to make it user-friendly and visually appealing. Style the contact form with appropriate margins, paddings, and input field styles.
- D. Enhance and style the user registration form with appropriate margins, paddings, and input field styles.
- E. Enhance and style the user login form with appropriate margins, paddings, and input field styles.

# **Objective:**

The objective of this project is to enhance the usability and visual appeal of the *MyJournal* web application by applying consistent and user-friendly styling across all key components. This includes improving the layout and appearance of the journal entries page, About Us page, Contact page, user registration form, and login form using appropriate margins, paddings, and input field styles. The goal is to create an intuitive and aesthetically pleasing interface that provides a seamless journaling experience for users.

# <u>Theory:</u>

1. Anchor Tag Wrapping a Button

html

<a href="contact.html">

<button class="cta-button">Contact Us</button>

</a>

Concept: Navigation with Anchor Tags

The <a> tag (anchor tag) is traditionally used to navigate between web pages. Wrapping a <button> element inside an anchor tag allows the button to act as a link, making the button both visually appealing and functional in terms of navigation. This technique is especially useful when creating call-to-action buttons that should redirect the user to another page.

2. CSS Button Styling with Transitions

```
.cta-button {
   padding: 0.75rem 1.5rem;
   font-size: 1rem;
   background-color: var(--button-green);
   color: white;
   border: none;
   border-radius: 12px;
   font-weight: bold;
   cursor: pointer;
   transition: background-color 0.3s ease;
}
```

**Concept: CSS Transitions and Button Customization** 

CSS transitions enhance user interaction by animating changes between property values. The transition property in the above example allows the background color to change smoothly on hover. Other properties like padding, border-radius, and font-weight are used to improve the button's appearance. The cursor: pointer property changes the cursor to a pointer when hovering over the button, indicating that it is clickable.

## 3. Centering Elements with CSS

```
.about-contact-btn {
text-align: center;
margin-top: 2rem;
}
```

Concept: Text Alignment and Spacing for Layout Design

The text-align: center; property centers inline elements such as the anchor tag containing the button. The margin-top: 2rem; property is used to add spacing above the element, maintaining a clean and structured layout. These are standard layout techniques in CSS to ensure proper positioning and spacing between UI components.

```
Products page:
:root {
--soft-pink: #fddcd3;
--light-cream: #fcf8ed;
--button-purple: #9b8cb9;
--button-green: #6aa89d;
--dark-text: #2d2d2d;
--nav-text: #4a4a4a;
--nav-bg: #fdf6ea;
}
/* General Body Styles */
body {
margin: 5px;
font-family: 'Georgia', serif;
background-color: var(--soft-pink);
color: var(--dark-text);
text-align: center;
padding-top: 20px;
}
/* Navbar Styles */
.navbar {
position: fixed;
top: 0;
left: 0;
width: 100%;
background-color: var(--nav-bg);
```

```
padding: 10px 0;
z-index: 1000;
display: flex; /* Flexbox for horizontal layout */
justify-content: center; /* Center items horizontally */
align-items: center; /* Align items vertically in the center */
}
.navbar ul {
list-style-type: none;
margin: 0;
padding: 0;
display: flex; /* Horizontal list items */
gap: 2rem; /* Spacing between links */
}
.navbar ul li {
margin: 0; /* Remove any additional margins */
}
.navbar ul li a {
color: var(--nav-text);
text-decoration: none;
font-size: 18px;
font-family: 'Georgia', serif;
font-weight: 500;
transition: color 0.3s ease;
}
.navbar ul li a:hover {
color: var(--button-purple); /* Change color on hover */
}
```

```
/* Hero Section */
.hero {
background-color: var(--soft-pink);
padding: 4rem 2rem;
text-align: center;
margin-top: 60px; /* Offset for the fixed navbar */
}
.hero h2 {
font-size: 3rem;
margin: 0;
font-weight: 600;
font-family: 'Georgia', serif;
}
.hero p {
margin-top: 1rem;
font-size: 1.5rem;
}
/* Buttons */
.buttons {
margin-top: 2rem;
display: flex;
font-family: 'Georgia';
justify-content: center;
gap: 1rem;
flex-wrap: wrap;
}
/* Message Section */
```

```
.message-section {
background-color: var(--light-cream);
padding: 3rem 2rem;
text-align: center;
border-radius: 0 0 12px 12px;
}
.message-section p {
font-size: 1.5rem;
font-weight: 500;
margin: 0;
font-family: 'Georgia', serif;
}
/* Product List Section */
.product-list1,
section[product-list2] {
display: flex;
justify-content: center;
gap: 20px;
flex-wrap: wrap;
padding: 20px;
}
.product-item {
text-align: center;
width: 250px;
background-color: white;
border-radius: 12px;
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
```

```
padding: 1rem;
transition: transform 0.3s ease;
}
.product-item:hover {
transform: translateY(-10px); /* Hover effect */
}
.product-item img {
width: 100%;
height: auto;
border-radius: 10px;
}
.product-item h2 {
font-family: 'Georgia', serif;
font-size: 1.8rem;
color: var(--dark-text);
}
.product-item p {
font-size: 1.2rem;
font-family: 'Georgia', serif;
color: var(--nav-text);
}
.product-item .price {
font-size: 1.4rem;
font-weight: bold;
margin-top: 0.5rem;
color: var(--button-green);
}
```

```
.product-item button {
padding: 0.75rem 1.5rem;
background-color: var(--button-purple);
color: white;
border: none;
border-radius: 8px;
cursor: pointer;
transition: background-color 0.3s ease;
font-family: 'Georgia', serif;
margin-top: 1rem;
}
.product-item button:hover {
background-color: #8a7ab2;
}
/* Form Styles for Contact/Checkout */
form {
max-width: 400px;
margin: 5rem auto;
padding: 2rem;
background-color: white;
border-radius: 12px;
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
font-family: 'Roboto', sans-serif;
}
form h2 {
text-align: center;
margin-bottom: 1.5rem;
```

```
font-family: 'Playfair Display', serif;
color: var(--dark-text);
}
form label {
display: block;
margin: 1rem 0 0.5rem;
font-weight: bold;
color: #333;
}
form input.box {
width: 100%;
padding: 0.75rem;
font-size: 1rem;
border: 1px solid #ccc;
border-radius: 8px;
box-sizing: border-box;
}
form button,
form input[type="submit"] {
margin-top: 1rem;
padding: 0.75rem 1.2rem;
font-size: 1rem;
border: none;
border-radius: 8px;
cursor: pointer;
display: block;
width: 100%;
```

```
}
\#submit\text{-}btn\ \{
background-color: var(--button-purple);
color: white;
}
#submit-btn:disabled {
background-color: #ccc;
cursor: not-allowed;
}
.msg {
margin-top: 1rem;
text-align: center;
color: #d33;
}
footer {
text-align: center;
font-family: 'Georgia', serif;
font-size: 0.95rem;
margin-top: auto; /* Pushes the footer to bottom if content is less */
}
```

Home About Us Your Journals **Products** Contact Us Login Cart(o)

### **Discover the Perfect Journaling Tools**

Find beautifully designed journals, writing tools, and guided prompts to enhance your journaling experience.



## Vintage **Paperback** Journal

A premium handcrafted journal with high-quality paper.

\$29.99



## **Guided Self-Discovery** Journal

Designed to help you explore your thoughts with structured prompts.

\$24.99



## Elegant Fountain Pen

Enhance your writing experience with this smoothflowing ink pen.

**\$14.99** Add to Cart







### Code:

About page:

:root {

--soft-pink: #fddcd3;

--light-cream: #fcf8ed;

--button-purple: #9b8cb9;

--button-green: #6aa89d;

--dark-text: #2d2d2d;

--nav-text: #4a4a4a;

--nav-bg: #fdf6ea;

}

```
body {
margin: 10px;
font-family: 'Georgia', serif;
background-color: var(--soft-pink);
color: var(--dark-text);
text-align: center;
}
header {
background-color: var(--nav-bg);
padding: 1rem 2rem;
display: flex;
justify-content: space-between;
align-items: center;
border-bottom: 1px solid #e0e0e0;
border-radius: 0 0 12px 12px;
}
header h1 {
font-size: 1.8rem;
font-weight: bold;
margin: 0;
color: var(--dark-text);
display: flex;
align-items: center;
}
nav a {
margin-left: 1.5rem;
text-decoration: none;
```

```
font-weight: 500;
color: var(--nav-text);
font-family: 'Georgia', serif;
transition: color 0.3s ease;
}
nav a:hover {
color: var(--button-purple);
}
.hero {
background-color: var(--soft-pink);
padding: 4rem 2rem;
text-align: center;
}
.hero h2 {
font-size: 3rem;
margin: 0;
font-weight: 600;
font-family: 'Georgia', serif;
}
.hero p {
margin-top: 1rem;
font-size: 1.5rem;
}
. but tons \, \{ \,
margin-top: 2rem;
display: flex;
font-family: 'Georgia';
```

```
justify-content: center;
gap: 1rem;
flex-wrap: wrap;
}
button.cta-button {
background-color: white;
color: black;
font-family: Georgia, 'Times New Roman', Times, serif;
}
.message-section {
background-color: var(--light-cream);
padding: 3rem 2rem;
text-align: center;
border-radius: 0 0 12px 12px;
}
.message-section p {
font-size: 1.5rem;
font-weight: 500;
margin: 0;
font-family: 'Georgia', serif;
}
form {
max-width: 400px;
margin: 5rem auto;
padding: 2rem;
background-color: white;
border-radius: 12px;
```

```
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
font-family: 'Roboto', sans-serif;
}
form h2 {
text-align: center;
margin-bottom: 1.5rem;
font-family: 'Playfair Display', serif;
color: var(--deep-teal);
}
form label {
display: block;
margin: 1rem 0 0.5rem;
font-weight: bold;
color: #333;
}
form input.box {
width: 100%;
padding: 0.75rem;
font-size: 1rem;
border: 1px solid #ccc;
border-radius: 8px;
box-sizing: border-box;
}
form button,
form input[type="submit"] {
margin-top: 1rem;
padding: 0.75rem 1.2rem;
```

```
font-size: 1rem;
border: none;
border-radius: 8px;
cursor: pointer;
display: block;
width: 100%;
}
#show-pass {
background-color: #eee;
color: #333;
}
#submit-btn {
background-color: var(--button-purple);
color: white;
}
#submit-btn:disabled {
background-color: #ccc;
cursor: not-allowed;
}
.msg\,\{
margin-top: 1rem;
text-align: center;
color: #d33;
}
```

## MyJournal

Home

About

Login Sign Up

Products

#### About Us

At HeadSpace, we believe in the transformative power of journaling. Our goal is to provide individuals with the tools they need to reflect, set goals, and explore their creativity. Through journaling, we aim to help people improve their mental well-being, gain clarity, and achieve their dreams.

We offer a wide range of beautifully crafted journals, from traditional leather-bound ones to modern guided journals that help with self-discovery. Whether you're looking to write your thoughts, track your habits, or record your memories, we have the perfect journal for you.

#### Our Mission

We are committed to helping people unlock their inner potential by providing them with the right tools to document their journey. Our mission is to inspire creativity, mindfulness, and self-reflection in people of all ages and backgrounds.

#### Why Journaling?

Journaling is more than just writing; it's a practice that enhances self-awareness, reduces stress, and boosts creativity. It's a personal space where you can reflect on your thoughts, express your feelings, and make sense of the world around you. Our products are designed to support you through every step of your journaling journey.



Get in Touch

If you have any questions or need assistance with your journaling journey, feel free to reach out to us. We're always here to help!

Email: support@headspace.com

Follow us on social media:

<u>Twitter</u> <u>Instagram</u> <u>Facebook</u>

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## Code:

Contact page:

:root {

--soft-pink: #fddcd3;

--light-cream: #fcf8ed;

--button-purple: #9b8cb9;

--button-green: #6aa89d;

--dark-text: #2d2d2d;

--nav-text: #4a4a4a;

```
--nav-bg: #fdf6ea;
}
body {
margin: 0;
font-family: 'Georgia', serif;
background-color: var(--soft-pink);
color: var(--dark-text);
text-align: center;
}
header {
background-color: var(--nav-bg);
padding: 1rem 2rem;
display: flex;
justify-content: space-between;
align-items: center;
border-bottom: 1px solid #e0e0e0;
border-radius: 0 0 12px 12px;
}
header h1 {
font-size: 1.8rem;
font-weight: bold;
margin: 0;
color: var(--dark-text);
}
nav a {
margin-left: 1.5rem;
text-decoration: none;
```

```
font-weight: 500;
color: var(--nav-text);
font-family: 'Georgia', serif;
transition: color 0.3s ease;
}
nav a:hover {
color: var(--button-purple);
}
.hero {
background-color: var(--soft-pink);
padding: 4rem 2rem 2rem;
}
.hero h2 {
font-size: 2.5rem;
margin: 0;
font-weight: 600;
}
.hero p {
margin-top: 1rem;
font-size: 1.2rem;
}
form {
max-width: 500px;
margin: 3rem auto;
padding: 2rem;
background-color: white;
border-radius: 12px;
```

```
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
}
form label {
display: block;
margin: 1rem 0 0.5rem;
font-weight: bold;
text-align: left;
color: #333;
}
form input.box,
form textarea.box {
width: 100%;
padding: 0.75rem;
font-size: 1rem;
border: 1px solid #ccc;
border-radius: 8px;
box-sizing: border-box;
font-family: 'Georgia', serif;
}
form textarea.box {
resize: vertical;
}
form input[type="submit"] {
margin-top: 1.5rem;
padding: 0.75rem 1.2rem;
font-size: 1rem;
border: none;
```

```
border-radius: 8px;
cursor: pointer;
background-color: var(--button-purple);
color: white;
transition: background-color 0.3s ease;
}
form input[type="submit"]:hover {
background-color: #8a7ab2;
}
.message-section {
background-color: var(--light-cream);
padding: 3rem 2rem;
text-align: center;
border-radius: 0 0 12px 12px;
}
.message-section p {
font-size: 1.2rem;
font-weight: 500;
}
```

MyJournal		Home	About	Login	Sign Up	Products
	Contact U	S				
We'd	love to hear from you! Please fill out the	form belo	w to get i	n touch.	•	
	Full Name					
	Your Name					
	Email Address					
	Your Email					
	Your Message					
	Write your message here					
				1.		
	Send Message					

Thank you for reaching out! We aim to respond to all queries within 24–48 hours.

# **Code:**

Login page:
:root {
--soft-pink: #fddcd3;
--light-cream: #fcf8ed;
--button-purple: #9b8cb9;
--button-green: #6aa89d;
--dark-text: #2d2d2d;
--nav-text: #4a4a4a;

```
--nav-bg: #fdf6ea;
}
body {
margin: 10px;
font-family: 'Georgia', serif;
background-color: var(--soft-pink);
color: var(--dark-text);
text-align: center;
}
header {
background-color: var(--nav-bg);
padding: 1rem 2rem;
display: flex;
justify-content: space-between;
align-items: center;
border-bottom: 1px solid #e0e0e0;
border-radius: 0 0 12px 12px;
}
header h1 {
font-size: 1.8rem;
font-weight: bold;
margin: 0;
color: var(--dark-text);
display: flex;
align-items: center;
}
.nav{
position: fixed;
}
```

```
nav a {
margin-left: 1.5rem;
text-decoration: none;
font-weight: 500;
color: var(--nav-text);
font-family: 'Georgia', serif;
transition: color 0.3s ease;
}
nav a:hover {
color: var(--button-purple);
}
.hero {
background-color: var(--soft-pink);
padding: 4rem 2rem;
text-align: center;
}
.hero h2 {
font-size: 3rem;
margin: 0;
font-weight: 600;
font-family: 'Georgia', serif;
}
.hero p {
margin-top: 1rem;
font-size: 1.5rem;
}
.buttons {
margin-top: 2rem;
display: flex;
```

```
font-family: 'Georgia';
justify-content: center;
gap: 1rem;
flex-wrap: wrap;
}
button.cta-button {
background-color: white;
color: black;
font-family: Georgia, 'Times New Roman', Times, serif;
}
.message-section {
background-color: var(--light-cream);
padding: 3rem 2rem;
text-align: center;
border-radius: 0 0 12px 12px;
}
.message-section p {
font-size: 1.5rem;
font-weight: 500;
margin: 0;
font-family: 'Georgia', serif;
}
form {
max-width: 400px;
margin: 5rem auto;
padding: 2rem;
background-color: white;
border-radius: 12px;
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
```

```
font-family: 'Roboto', sans-serif;
}
form h2 {
text-align: center;
margin-bottom: 1.5rem;
font-family: 'Playfair Display', serif;
color: var(--deep-teal);
}
form label {
display: block;
margin: 1rem 0 0.5rem;
font-weight: bold;
color: #333;
}
form input.box {
width: 100%;
padding: 0.75rem;
font-size: 1rem;
border: 1px solid #ccc;
border-radius: 8px;
box-sizing: border-box;
}
form button,
form input[type="submit"] {
margin-top: 1rem;
padding: 0.75rem 1.2rem;
font-size: 1rem;
border: none;
border-radius: 8px;
```

```
cursor: pointer;
display: block;
width: 100%;
}
#show-pass {
background-color: #eee;
color: #333;
}
#submit-btn {
background-color: var(--button-purple);
color: white;
}
#submit-btn:disabled {
background-color: #ccc;
cursor: not-allowed;
}
.msg\,\{
margin-top: 1rem;
text-align: center;
color: #d33;
}
```

Login Form  User Name  Enter User name
Password
Enter Password
Show Password
Login

## **Conclusion:**

The experiment successfully demonstrated the application of Cascading Style Sheets (CSS) to enhance the visual presentation and user interface of a multi-page web project. By linking external CSS files to each HTML document, consistent styling was achieved across all pages, improving both aesthetics and usability. Key design elements such as layout alignment, color schemes, typography, navigation bar styling, and responsive spacing were implemented. This not only created a cohesive look and feel throughout the website but also improved user experience by ensuring intuitive interaction and visual appeal. The experiment reinforced the importance of separating content (HTML) from design (CSS) to create scalable and maintainable web applications.

# **Experiment No.5**

### **Problem Statement:**

#### 5. Javascript

- A. Implement user registration and login forms for the journaling web application. These forms will allow users to create an account, log in, and access personalized features, such as creating journal entries or managing their account.
- B. **User Registration Form** will allow new users to sign up and create an account on the website. The form will capture basic user details, including the name, email address, and password (not limited to these fields).
- C. **User Login Form** will allow registered users to log into their accounts. The form will require an email address and a password to authenticate the user.
- D. Provide validations for user registration and login forms to validate the input to ensure that all required fields are filled and that the email format is valid. (Contents beyond Syllabus)

## **Objective:**

To design and implement user registration and login functionalities for the journaling web application using HTML, CSS, and JavaScript. The objective is to allow users to create accounts, log in securely, and access personalized features such as creating journal entries and managing their profile. The experiment also includes implementing client-side validations to ensure data integrity and a user-friendly experience. This experiment goes beyond the syllabus by utilizing local storage for authentication and session handling.

### Theory:

In modern web applications, user registration and login are essential features that allow users to create accounts and access personalized services. In our journaling web app, we have implemented both a registration form and a login form using HTML, CSS, and JavaScript.

#### **Registration Form**

The registration form allows new users to sign up by entering their username and password. We collect the following data:

- Username
- Password

The form also includes basic validations:

- The username must be longer than 5 characters.
- The password must be 6–16 characters long and must contain at least one digit and one special character.

The "Register" button remains disabled until both fields are valid. This ensures the user fills in proper details before submission. When the user types into the input fields, the border turns green if the input is valid, and red if invalid. This gives visual feedback for a better user experience.

We also added a "Show Password" button to allow the user to view or hide the password for convenience.

#### **Login Form**

The login form allows users to log into their existing accounts by entering their username and password. It includes the same validation rules used in the registration form. After entering valid details, the "Login" button becomes active.

If the entered credentials match the stored values (for demo purposes, hardcoded values are used), the user is successfully logged in. A message is displayed, and the user is redirected to the homepage.

To maintain the login session, we use **localStorage**. It stores the user details in the browser so that the session remains active even after reloading the page.

#### **Client-Side Validation**

We have used JavaScript for real-time client-side validation. This means the input is checked instantly without needing to reload or send data to the server. This improves user experience and helps prevent incorrect data from being submitted.

#### Code:

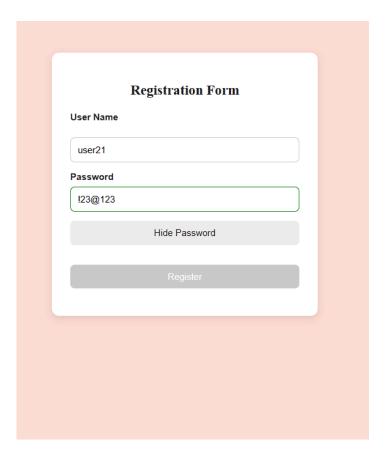
#### Registration-page:

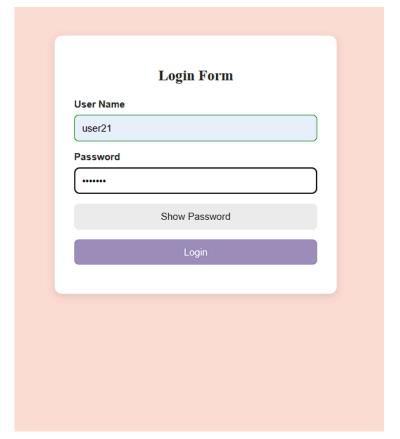
```
<script>
var username = document.getElementById('username');
var pass = document.getElementById('pass');
var submit = document.getElementById('submit-btn');
var showPass = document.getElementById('show-pass');
var validUsername = false;
var validPass = false; // Declare validPass properly
username.addEventListener('input', onUsernameInput);
pass.addEventListener('input', onPassInput); // Attach event listener for password
function onUsernameInput(event) {
  validUsername = event.target.value.length > 5;
  username.style.borderColor = validUsername ? 'green' : 'red';
  checkValidity();
```

```
}
function onPassInput(event) {
validPass = /^{?=.*[0-9]}(?=.*[!@#$\%^&*])[a-zA-Z0-9!@#$\%^&*]{6,16}$/.test(event.target.value);
pass.style.borderColor = validPass ? 'green' : 'red';
checkValidity();
}
function checkValidity() {
submit.disabled = !(validUsername && validPass);
}
function togglePass(event) {
event.preventDefault();
if (pass.getAttribute('type') === 'text') {
pass.setAttribute('type', 'password');
showPass.innerHTML = 'Show Password';
} else {
pass.setAttribute('type', 'text');
showPass.innerHTML = 'Hide Password';
}
}
showPass.addEventListener('click', togglePass); // Attach event listener to show password button
</script>
Login-page:
<script>
var username = document.getElementById('username');
var pass = document.getElementById('pass');
var submit = document.getElementById('submit-btn');
var showPass = document.getElementById('show-pass');
```

```
var msgElement = document.querySelector('.msg');
var validUsername = false;
var validPass = false:
username.addEventListener('input', onUsernameInput);
pass.addEventListener('input', onPassInput);
showPass.addEventListener('click', togglePass);
submit.addEventListener('click', onSubmitClick);
function onUsernameInput(event) {
validUsername = event.target.value.length > 5;
username.style.borderColor = validUsername ? 'green' : 'red';
toggleSubmit();
}
function onPassInput(event) {
validPass = /^{?=.*[0-9]}(?=.*[!@#$\%^&*])[a-zA-Z0-9!@#$\%^&*]{6,16}$/.test(event.target.value);
pass.style.borderColor = validPass ? 'green' : 'red';
toggleSubmit();
}
function toggleSubmit() {
submit.disabled = !(validUsername && validPass);
}
function togglePass(event) {
event.preventDefault();
if (pass.getAttribute('type') === 'text') {
pass.setAttribute('type', 'password');
showPass.innerHTML = 'Show Password';
} else {
pass.setAttribute('type', 'text');
```

```
showPass.innerHTML = 'Hide Password';
}
}
function onSubmitClick(e) {
e.preventDefault();
var msg = ";
let un = "Swaggy";
let pw = "swagata@123";
if (un === username.value && pw === pass.value) {
msg = 'Successfully logged in';
localStorage.setItem('userDetails', JSON.stringify({ username: un }));
msgElement.textContent = msg;
// Redirect to index.html after 2 seconds
setTimeout(() => {
window.location.href.= \S\{window.location.href.slice(0, window.location.href.lastIndexOf('/'))\}/index.html\S;
}, 2000);
} else {
msg = 'Invalid Username or Password';
msgElement.textContent = msg;
console.log('error');
}
}
</script>
```





# **Conclusion:**

This experiment helped us understand how to create interactive and secure user forms using JavaScript and HTML. We also explored how to validate input data and maintain user sessions using localStorage. These concepts are commonly used in modern websites and web apps to provide personalized features to users

# **Experiment No.6**

### **Problem Statement:**

#### 6. Javascript

- A. The user login form will allow registered users to log into their accounts. The form will require an email address and a password to authenticate the user.
- B. If the login is successful, the user should be redirected to the homepage or their journal dashboard. **(Contents beyond Syllabus)**
- C. Use localStorage or sessionStorage to store authentication data, such as the user's email and login status. This ensures that once a user is logged in, they remain authenticated even after the page reloads or when they visit the site again. (Contents beyond Syllabus)
- D. Save the products data to local storage when products are added, updated, or deleted. Retrieve and load the journal data from local storage when the page loads. **(Contents beyond Syllabus)**

## **Objective:**

The objective of this project is to develop a client-side journaling web application that provides a secure and user-friendly experience by implementing persistent authentication using localStorage. Registered users will be able to log into their accounts using an email and password, and upon successful authentication, will be redirected to their personalized homepage or journal dashboard. The application will also manage product and journal data locally—allowing users to add, update, or delete entries. These actions will automatically update the stored data in localStorage, ensuring that journal entries and cart products persist across sessions and page reloads without requiring server-side storage.

### Theory:

#### 1. DOM Manipulation:

JavaScript uses the Document Object Model (DOM) to interact with HTML elements. Methods like getElementById are used to access input fields and buttons. The style and content of elements can be changed dynamically, for example, by setting the borderColor property or changing the innerHTML of a button.

#### 2. Event Handling:

Event listeners are attached to form elements to respond to user actions such as typing in a field (input event), clicking a button (click event), or submitting a form (submit event). This allows the page to react immediately to user input.

#### 3. Form Validation:

Validation is performed in real-time as the user types. For the username, the code checks if the length is greater than 5 characters. For the password, a regular expression is used to ensure it contains at least one number, one special character, and is between 6 and 16 characters long. If the input is valid, the border color of the input field is set to green; otherwise, it is set to red.

4. Enabling and Disabling the Submit Button:

The submit button is enabled only when both the username and password are valid. This is done by checking the validity flags and setting the disabled property of the button accordingly.

5. Show/Hide Password Feature:

A button is provided to toggle the visibility of the password. This is achieved by changing the type attribute of the password input field between "password" and "text" and updating the button text to indicate the current state.

6. Local Storage:

The Web Storage API's localStorage is used to store and retrieve user data in the browser. During registration, user details are saved in localStorage. During login, the entered credentials are compared with the stored data to authenticate the user. This allows data to persist even after the browser is closed.

7. Preventing Default Form Submission:

The default form submission is prevented using event.preventDefault(). This allows custom JavaScript logic to handle the form data instead of the browser's default behavior.

8. User Feedback:

Feedback is provided to the user through alert messages and by updating the content of a message element on the page. This helps inform the user about successful registration, login, or errors.

9. Security Note:

Storing passwords in localStorage is not secure and should only be used for demonstration or learning purposes. In real applications, passwords should be hashed and stored securely on the server.

10. Event-Driven Programming:

The code is event-driven, meaning it responds to user actions rather than running in a fixed sequence. This approach is essential for creating interactive web applications.

#### Code:

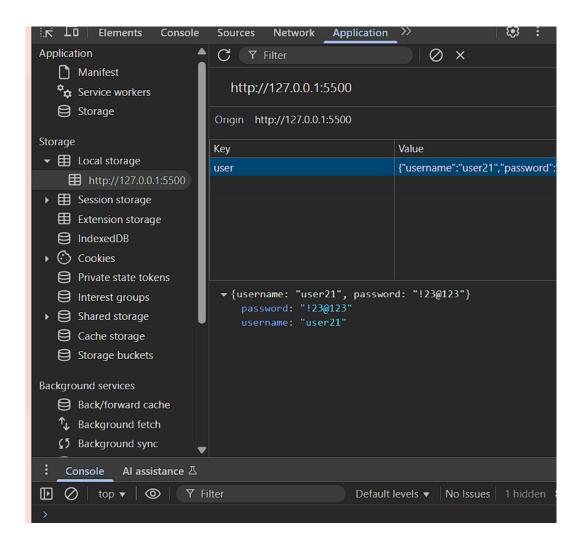
```
1. document.getElementById("registerForm").addEventListener("submit", function(e) {
    e.preventDefault();
    const email = document.getElementById("email").value;
    const password = document.getElementById("pass").value;

const userData = { email, password };
    localStorage.setItem(email, JSON.stringify(userData)); // Store user data with email as key
    alert("Registration successful!");
    window.location.href = "login.html"; // Redirect to login after registration
});

2.const form = document.getElementById('loginForm');
const msg = document.querySelector('.msg');

form.addEventListener("submit", function(e) {
    e.preventDefault();
}
```

```
const email = document.getElementById("email").value;
 const pass = document.getElementById("pass").value;
 const storedUser = localStorage.getItem(email);
 if (storedUser) {
  const user = JSON.parse(storedUser);
  if (user.password === pass) {
   localStorage.setItem("loggedInUser", email); // Save logged-in user's email in localStorage
   msg.textContent = "Login successful!";
   window.location.href = "dashboard.html"; // Redirect to dashboard on successful login
  } else {
   msg.textContent = "Incorrect password.";
 }
 } else {
  msg.textContent = "User not found.";
}
});
3.window.onload = function() {
 const user = localStorage.getItem("loggedInUser");
 if (!user) {
  alert("Please log in first!");
  window.location.href = "login.html"; // Redirect to login if not authenticated
 } else {
 // Optionally personalize the page/dashboard with the logged-in user's details
 document.body.innerHTML += `Welcome, ${user}!`;
}
}
```



## **Conclusion:**

The implementation of registration and login forms using JavaScript demonstrates essential web development concepts such as DOM manipulation, real-time form validation, event-driven programming, and client-side data storage. By handling user input dynamically and providing immediate feedback, the forms enhance user experience and interactivity. Although localStorage is used here for simplicity and demonstration purposes, it highlights the importance of data persistence in web applications. Overall, this exercise provides a practical understanding of how JavaScript can be used to create responsive and interactive forms, laying a strong foundation for more advanced web development projects.

## 7. PHP

## **Problem Statement:**

- A. Develop a PHP script to handle user registration for the Journaling Web App. The script should accept input from users for all required registration fields such as username, email address, and password.
- B. Implement robust input validation and error handling to notify users of any registration issues, such as missing fields, invalid email format, or weak passwords.
- C. Provide clear feedback to the user upon successful registration, such as displaying a confirmation message or redirecting the user to the login page.

## **Objective:**

To develop a PHP script for the Journaling Web App that facilitates secure user registration by collecting required information (username, email address, and password), validating user input, handling errors, and providing appropriate user feedback or redirection.

## **Theory:**

User registration is a foundational feature in any web-based application that requires personalized user interaction. In the **Journaling Web App**, a registration system enables new users to create their accounts and securely access their personal journal entries.

The process typically involves:

### 1. Collecting User Input

A registration form built using HTML sends user input (e.g., username, email, and password) to a backend PHP script via the POST method.

#### 2. Validating Input Data in PHP

PHP is used to:

- Ensure that all fields are completed.
- Validate the email format using PHP's filter\_var() function with FILTER\_VALIDATE\_EMAIL.
- Enforce password strength rules, such as minimum length and the presence of numbers and special characters, using regular expressions or string functions.

## 3. Error Handling

PHP handles validation errors by generating user-friendly messages (e.g., "Email format is invalid" or "Password too weak"), which are displayed back to the user to improve the form input.

## 4. Securing User Data with PHP

• Passwords are never stored in plain text. PHP's password\_hash() function is used to hash the password before storing it in the database.

• The script checks if the email or username already exists in the MySQL database using a SELECT query before inserting new records.

## 5. Database Interaction Using PHP and MySQL

PHP's mysqli or PDO extension is used to:

- o Connect to the MySQL database.
- Perform INSERT operations to add the new user's data to a users table.
- Use prepared statements (mysqli\_prepare() or PDO::prepare()) to prevent SQL injection attacks.

## 6. User Feedback and Redirection

Upon successful registration:

- o PHP displays a confirmation message (e.g., "Registration successful!"), or
- Redirects the user to the login page using header("Location: login.php").

This entire workflow ensures both usability and security. PHP plays a crucial role in **validating input**, **interacting with the database, securing sensitive data, and controlling user flow**, thus laying the groundwork for authenticated, user-specific operations like creating, reading, or managing private journal entries.

```
<?php

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $username = $_POST['username'];
    $pass = $_POST['password'];
    $email = $_POST['email'];

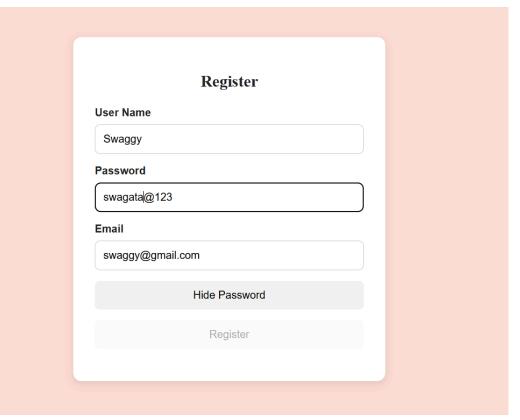
$servername = "localhost";
    $db_username = "root"; // update if needed
    $db_password = ""; // update if needed
    $dbname = "journal_db";

$conn = new mysqli($servername, $db_username, $db_password, $dbname);

if ($conn->connect_error) {
    echo "<span style='color:red;'>Connection failed: ".$conn->connect_error."</span>";
} else {
```

```
// Use prepared statements
$stmt = $conn->prepare("INSERT INTO usr_tbl (username, password, email) VALUES (?, ?, ?)");
$stmt->bind_param("sss", $username, $pass, $email);

if ($stmt->execute()) {
    echo "<span style='color:green;'>Registration successful! Redirecting to login...</span>";
    echo "<script>setTimeout(() => window.location.href = 'login.php', 2000);</script>";
} else {
    echo "<span style='color:red;'>Username might already exist or error occurred.</span>";
}
$stmt->close();
$conn->close();
}
```





# **Conclusion:**

The PHP-based user registration system for the Journaling Web App successfully captures and validates user data, handles errors, and ensures that new users can securely create accounts. The implementation provides a user-friendly experience by offering immediate feedback and guiding users through the registration process, thereby enabling a secure and personalized journaling environment.

8.PHP

## **Problem Statement:**

- A. Develop a PHP script to handle user login for the Journaling Web App. The script should accept input from users for all required login credentials, typically email/username and password.
- B. Implement error handling to notify users of login failures, such as incorrect credentials, missing input fields, or system errors.
- C. Provide feedback to the user upon successful login, either by:
- D. Displaying a welcome message with the user's name, or redirecting the user to the home/dashboard page where they can begin writing or viewing their journal entries..

# **Objective:**

To develop a PHP script for handling **user login** in the Journaling Web App by accepting user credentials (email/username and password), verifying them against stored records in a **MySQL database**, and providing appropriate feedback or redirection upon successful or failed login attempts.

## Theory:

User login is a fundamental security feature in web applications that involve personalized content. In the context of the Journaling Web App, it ensures that users can securely access their own journal entries and not those of others.

### 1. User Authentication Process Using PHP:

- The login form collects the **email/username** and **password**.
- PHP receives the data through the POST method and performs input validation to ensure fields are not left blank.

### 2. Validating Credentials Against MySQL Database:

- PHP connects to a MySQL database using mysqli or PDO.
- It queries the users table to find a matching record based on the email or username.
- If a matching user is found, the stored **hashed password** is compared to the provided password using password\_verify().

## 3. Session Management:

• On successful login, PHP starts a session using session\_start() and stores relevant session variables like \$\_SESSION['user\_id'] and \$\_SESSION['username'] to track the logged-in state across pages.

### 4. Error Handling:

• PHP provides user feedback for cases such as:

- Missing input fields.
- o Invalid username/email.
- o Incorrect password.
- Server or database errors.

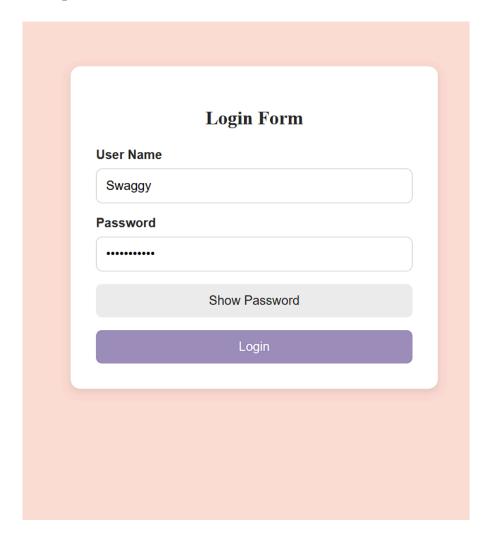
### 5. Feedback and Redirection:

- Upon success:
  - A **welcome message** can be shown using the user's name stored in the session.
  - Or the user is **redirected to a dashboard/home page** (header("Location: dashboard.php")) to access or write journal entries.
- Upon failure, the user remains on the login page with an appropriate error message.

PHP serves as the **backend engine** that facilitates secure authentication, error reporting, and user redirection, while the database serves as the **persistent store** for user credentials and related data.

```
<?php
        if ($_SERVER["REQUEST_METHOD"] == "POST") {
         $username = $_POST['username'];
         $pass = $ POST['pass'];
         $conn = new mysqli("localhost", "root", "", "journal db");
         if ($conn->connect_error) {
         echo "Database connection failed!";
        } else {
         $sql = "SELECT * FROM usr tbl WHERE username = ?";
         $stmt = $conn->prepare($sql);
        $stmt->bind_param("s", $username);
         $stmt->execute();
         $result = $stmt->get_result();
         if ($result && $result->num_rows > 0) {
         $row = $result->fetch assoc();
        // For real security, use password_verify() if you store hashed passwords
         if ($row['password'] === $pass) {
               // Redirect to index
               header("Location: index.html");
               exit();
        } else {
               echo "<span style='color:red;'>Incorrect password</span>";
        }
        } else {
        // Redirect to register page
         header("Location: register.html?error=User+not+found,+please+register");
```

```
exit();
}
$conn->close();
}
}
?>
```



# **Conclusion:**

The PHP login script for the Journaling Web App provides a **secure and user-friendly authentication mechanism** by validating login credentials, handling errors gracefully, and managing sessions for continuous access. This login system is essential for protecting private user data and enabling personalized experiences in the application, such as creating, editing, and viewing journal entries.

## **Problem Statement:**

- 9. PHP and MySQL
  - A. Develop a PHP script that allows users to manage their journal entries for a personal journaling website. The script should allow users to create new journal entries, view their existing entries, and delete or edit entries as needed.

    Use MySQL to store the journal data, ensuring entries are saved and persist across user sessions.
  - B. Develop a PHP script to manage user journal entries using MySQL. The script should allow users to write new journal entries, view a list of all saved entries, and delete specific entries from their journal. Journal data should be stored in a MySQL database to ensure long-term persistence and secure retrieval.

## **Objective:**

To develop a PHP-based script for the Journaling Web App that enables users to create, view, update, and delete their journal entries. The entries should be stored in a MySQL database, ensuring data persistence and associating entries with individual users for secure and personalized journal management.

# <u>Theory:</u>

Managing journal entries is a core function of any journaling application. In the Journaling Web App, PHP and MySQL are used together to implement CRUD (Create, Read, Update, Delete) functionality for each user's entries. Here's how each part works:

#### 1. User Authentication & Session Handling

Logged-in users are identified using PHP sessions (e.g., \$\_SESSION['user\_id']) to ensure only authenticated users can access or manage their entries.

### 2. Creating Journal Entries

A form allows users to submit a journal **title**, **date**, and **content**. PHP validates the inputs and inserts the data into a MySQL journal\_entries table, along with the user's ID.

#### 3. Storing Data in MySQL

- A journal\_entries table stores entries with fields such as entry\_id, user\_id, title, entry\_date, content, created\_at, and updated\_at.
- PHP's mysqli or PDO extension handles database connectivity and queries.
- Prepared statements are used for safe and secure data handling, preventing SQL injection.

#### 4. Viewing Entries

- PHP queries the database for entries matching the current user's ID and displays a list.
- Each entry can be viewed in detail on a separate page or modal.

## 5. **Updating Entries**

• Users can click an edit button to load a form pre-filled with an existing entry.

• PHP handles the form submission and updates the corresponding MySQL record.

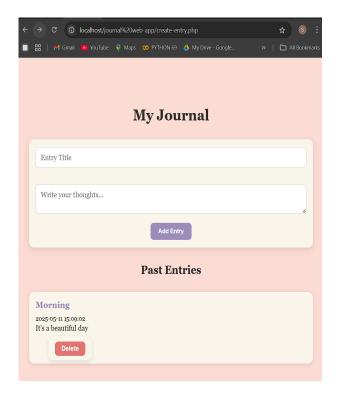
## 6. **Deleting Entries**

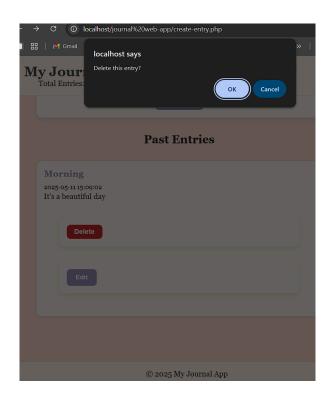
• Users can delete entries by triggering a PHP script that removes the selected record from the database, ensuring the operation only applies to entries owned by the logged-in user.

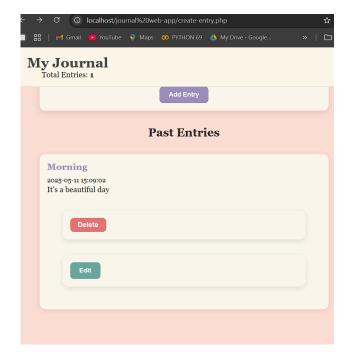
PHP plays a vital role in controlling application logic, interacting with MySQL, handling form data, and maintaining session-based security, while MySQL provides robust and persistent data storage.

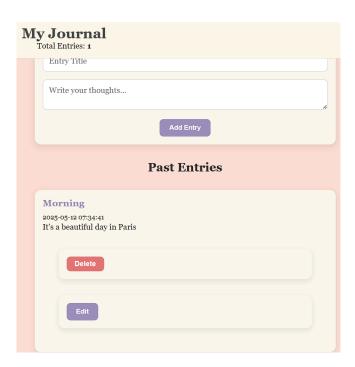
```
if (isset($_POST['add'])) {
  $title = trim($_POST['title']);
  $content = trim($_POST['content']);
  if (!empty($title) && !empty($content)) {
    $stmt = $conn->prepare("INSERT INTO journal_entries (title, content) VALUES (?, ?)");
    $stmt->bind_param("ss", $title, $content);
    $stmt->execute();
    $stmt->close();
  }
}
// Update Entry
if (isset($_POST['update'])) {
  $id = $_POST['update_id'];
  $title = trim($_POST['title']);
  $content = trim($_POST['content']);
  if (!empty($title) && !empty($content)) {
    $stmt = $conn->prepare("UPDATE journal_entries SET title = ?, content = ? WHERE id = ?");
    $stmt->bind_param("ssi", $title, $content, $id);
```

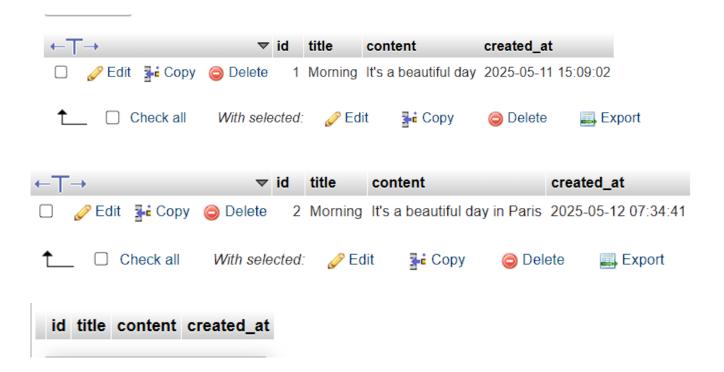
```
$stmt->execute();
    $stmt->close();
  }
}
// Handle edit request
$edit_entry = null;
if (isset($_POST['edit_id'])) {
  $edit_id = $_POST['edit_id'];
  $stmt = $conn->prepare("SELECT * FROM journal_entries WHERE id = ?");
  $stmt->bind_param("i", $edit_id);
  $stmt->execute();
  $result_edit = $stmt->get_result();
  $edit_entry = $result_edit->fetch_assoc();
  $stmt->close();
}
// Delete Entry
if (isset($_POST['delete'])) {
  $id = $_POST['delete_id'];
  $stmt = $conn->prepare("DELETE FROM journal_entries WHERE id = ?");
  $stmt->bind_param("i", $id);
  $stmt->execute();
  $stmt->close();
// Fetch Entries
$result = $conn->query("SELECT * FROM journal_entries ORDER BY created_at DESC");
?>
```











# **Conclusion:**

The implementation of journal entry management using PHP and MySQL successfully allows users to create, view, update, and delete their personal entries in the Journaling Web App. By associating entries with specific users and storing them in a structured database, the app ensures both data security and session persistence. The integration of PHP and MySQL offers a dynamic and user-friendly platform for personal journaling, meeting the core needs of privacy, control, and accessibility.

## **Problem Statement:**

10. PHP and MySQL

- A. Develop a PHP script to handle the final submission process for users who are ready to save or finalize a journal entry. The script should validate the entry content, store the entry data in the MySQL database, and provide feedback to the user upon successful or failed submission.
- B. Create a PHP script that processes journal entries submitted by users, integrating with a MySQL database to manage user and entry information. The script should validate the input (e.g., prevent empty or malicious content), store the journal data, and return a success or error message to the user based on the result.

## **Objective:**

To develop a PHP script that handles the **checkout process** for users in an e-commerce application by validating user inputs, processing shopping cart data, interacting with a **MySQL database** to store order details, and providing appropriate feedback for both successful and failed transactions.

## Theory:

Journal Entry Finalization Process (Checkout Equivalent)

The final submission process for journal entries is a key component in personal journaling applications. It ensures users' content is securely saved, updated, or removed with accuracy and user-friendly feedback. Below is a breakdown of how this is implemented using PHP and MySQL:

### 1. Journal Data Handling:

During the entry submission process, users add or modify personal journal content through a form. PHP handles the retrieval and processing of this data by:

- Receiving input from POST requests (e.g., title and content).
- Performing INSERT, UPDATE, or DELETE operations depending on the action.
- Fetching all existing journal entries from the database (SELECT) to display them in a structured format.

### 2. User Input Validation:

The script ensures input data is valid to prevent both accidental and malicious errors:

Checks for required fields (title and content) before processing.

Sanitizes input using prepared statements to protect against SQL injection.

Uses htmlspecialchars() and nl2br() to prevent XSS when displaying entries.

### 3. Database Integration with MySQL:

The PHP script integrates directly with a MySQL database to:

Connect via mysqli.

Store each journal entry in a journal\_entries table.

Support all CRUD operations:

• Create: Inserts a new entry.

• Read: Retrieves entries for display.

• Update: Edits a selected journal entry.

• Delete: Removes an entry using its ID.

## 4. Entry Processing Logic:

Once data is validated:

- PHP executes the relevant SQL operation based on user action (add, update, or delete).
- All statements use mysgli\_prepare() and bind\_param() for security.
- Upon successful execution:
- The page is refreshed to reflect changes.
- Journal count in the navbar is updated dynamically.

### 5. Feedback and Error Handling:

The user receives direct feedback through the interface:

- On success: New or updated entries appear immediately, with updated count.
- On failure: Internal checks and confirmation dialogs (like delete confirmation) prevent accidental or erroneous actions. Error messages can optionally be displayed for database issues or invalid input.

### **6. Security and Session Management:**

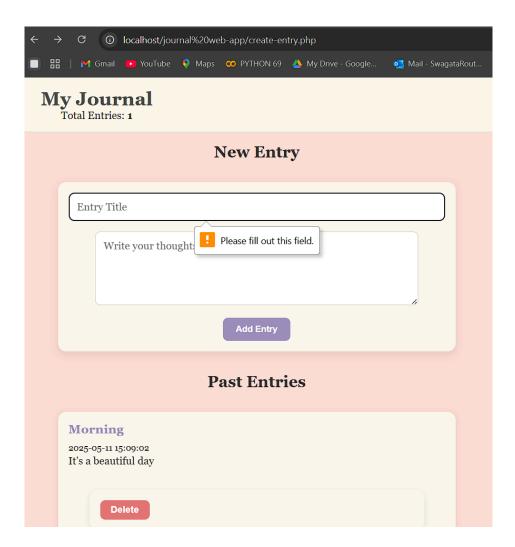
Sessions are used to ensure the checkout is tied to the logged-in user.

PHP ensures only authenticated users can complete a checkout.

Sensitive operations are protected using proper input sanitization and server-side controls.

```
<?php
// Database config
$host = 'localhost';
$user = 'root';
$password = ";
$database = 'journal_db';
// Create DB connection
$conn = new mysqli($host, $user, $password, $database);
// Check connection
if ($conn->connect_error) {
die("Connection failed: " . $conn->connect_error);
}
// Initialize response
$response = "";
// Handle form submission
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
// Validate and sanitize inputs
$title = trim($_POST['title'] ?? ");
$content = trim($_POST['content'] ?? ");
if (empty($title) || empty($content)) {
$response = "Error: Title and content cannot be empty.";
} elseif (strlen($title) > 255) {
$response = "Error: Title is too long.";
} else {
// Use prepared statements to prevent SQL injection
```

```
$stmt = $conn->prepare("INSERT INTO journal_entries (title, content) VALUES (?, ?)");
if ($stmt) {
$stmt->bind_param("ss", $title, $content);
$executed = $stmt->execute();
if ($executed) {
$response = "Journal entry successfully saved.";
} else {
$response = "Database error: Could not save entry.";
}
$stmt->close();
} else {
$response = "Database error: " . $conn->error;
}
}
}
?>
```



## **Conclusion:**

The PHP-based checkout script integrates seamlessly with a MySQL database to transform shopping cart data into structured, persistent order records. Through robust input validation, secure session management, and effective database interaction, the system ensures a reliable and secure checkout experience. This solution is vital for converting user intent into completed transactions, supporting both business functionality and customer satisfaction.