Marwadi University
Marwadi Chandarana Group

NAAC A+

SmartlyGoPHP

~ Learning Platform

📘 **Submitted By :**

Jenish Gohel (92300527156)
Ravi Sav (92300527257)

📍 **Internal Guide:**

Prof. Vipulkumar Bambhaniya
Faculty of Computer Applications.

🏫 **Institution Address:**

Marwadi University,
Rajkot - Morbi Road,
At & PO: Gauridad, Rajkot

INTRODUCTION

SmartlyGoPHP is a web-based interactive learning platform developed using Core PHP and MySQL, designed to help students and beginners understand the fundamental concepts of PHP programming in an engaging and practical way. With the rapid growth of web technologies, there is a strong need for platforms that not only provide theoretical knowledge but also allow learners to practice and test their understanding through interactive activities.

Traditional learning methods such as books and classroom lectures often lack real-time interaction, practice opportunities, and progress tracking. SmartlyGoPHP overcomes these limitations by combining learning modules, educational games, and practice tools into a single platform. Users can read PHP concepts, practice coding logic, play quizzes, and improve their skills step by step.

The system consists of two major components: Admin Side and User Side.

The Admin module allows administrators to manage users, feedback, and contact messages while monitoring overall platform activity through a dashboard.

The User module provides learners with access to PHP learning modules, scoring and non-scoring tools, progress tracking, and feedback features. SmartlyGoPHP also supports guest users, allowing anyone to explore learning content and tools without registration, though progress is saved only for logged-in users. Overall, the project aims to make learning PHP simple, interactive, and motivating through structured content and gamification.

OBJECTIVES OF THE PROJECT

The main objectives of the **SmartlyGoPHP** project are:

- To provide a simple and interactive platform for learning Core PHP concepts.
- To combine theoretical learning with practical implementation through tools and games.
- To motivate learners using gamification concepts such as score, level, and streaks.
- To allow users to practice PHP concepts anytime through quizzes and coding-based tools.
- To maintain user progress, performance, and learning consistency for registered users.
- To provide an admin-controlled system for managing users, feedback, and contact messages.

TECHNOLOGIES USED

The SmartlyGoPHP project is developed using the following technologies:

Programming Language:
Core PHP

Frontend Technologies:
HTML
CSS
JavaScript

Database:
MySQL

Web Server:
Apache Server (XAMPP/WAMP)

Development Tools:
Visual Studio Code
phpMyAdmin

These technologies are **open-source, reliable, and widely used**, making the system cost-effective and easy to maintain.

TARGETED AUDIENCE

The SmartlyGoPHP platform is designed for:

- Students learning PHP as part of academic courses (BCA, BSc IT, MCA, etc.).
- Beginners who want to start learning PHP programming from scratch.
- Self-learners interested in improving their PHP fundamentals through practice.
- Educational Institutions and Training Centers as a supplementary learning tool.
- Guest users who want to explore PHP concepts without registration.

KEY FEATURES

The **SmartlyGoPHP** project includes the following key features that make it an effective and interactive PHP learning platform:

1. Dual Module System
- Separate Admin and User modules for better control and security.
- Admin manages users, feedback, and contact messages.

2. Interactive Learning Modules
- 12 structured PHP chapters with explanations and code examples.
- Designed for clear understanding of core PHP concepts.

3. Gamified Learning Tools
- Scoring tools like Quiz (MCQ), Fill in the Blanks, and True/False.
- Each correct answer gives 10 points and every 100 points increases user level.

4. Practice-Based Tools
- Non-scoring tools such as Find the Error, Fix the Code, Flashcards, Predict Output, and Treasure Hunt.
- Focused on logical thinking and hands-on practice.

5. User Progress Tracking
- Tracks total score, level, games played, accuracy, and daily streaks.
- Progress is saved only for logged-in users.

6. Guest Access
- Users can explore learning content and play tools without login.
- Progress is not stored for guest users.

7. Feedback & Contact System
- Users can submit feedback with rating and category.
- Contact page includes FAQs and support details.

8. Admin Dashboard
- Displays total users, feedback, and contact messages.
- Easy monitoring of platform activity.

MODULES IN SmartlyGoPHP

The SmartlyGoPHP system is divided into well-structured modules to ensure smooth functionality, better management, and an effective learning experience. The major modules are as follows:

1. Admin Module
The Admin Module is responsible for overall system control and monitoring.

Sub-modules:

- **Admin Login:** Secure authentication for admin access.
- **Dashboard:** Displays total users, total feedback, and total contact messages.
- **Manage Users:** View, edit, and delete registered user details.
- **Manage Feedback:** View all feedback with user details, rating, category, message, and status.
- **Manage Contact:** View contact messages with date, subject, status, and message.
- **Logout:** Securely ends the admin session.

MODULES IN SmartlyGoPHP

2. User Module
The User Module is the core learning part of the system, designed for learners.

Sub-modules:

- **User Registration:** New users can enroll by providing personal and academic details.
- **User Login:** Existing users can log in using email and password.
- **Dashboard:** Displays greeting message, score, level, games played, and daily streak.
- **Home:** Shows user progress overview and quick access to tools and modules.
- **Modules (Learning):** Contains 12 PHP chapters with explanations and code examples.
- **Tools:** Includes both scoring and non-scoring learning tools.
- **Feedback:** Allows users to submit feedback with rating and category.
- **Contact:** Enables users to send contact messages and view FAQs.
- **Logout:** Ends user session securely.

MODULES IN SmartlyGoPHP

3. Learning Tools Module
This module provides interactive tools for practice and assessment.

Scoring Tools:

1. Fill in the Blanks
2. Quiz Challenges (MCQ)
3. True / False

Non-Scoring Tools:

1. Find the Error
2. Fix the Code
3. Flashcards
4. Predict Output
5. Treasure Hunt

4. Guest Access Module
Allows users to explore modules and tools without login.
Learning is allowed, but progress, score, and level are not saved.

5. Database & Progress Tracking Module
Stores user details, game progress, scores, accuracy, and streaks.
Maintains feedback and contact data for admin review.

ADVANTAGES

The **SmartlyGoPHP** project offers several advantages that make it an effective and user-friendly learning platform:

- **Interactive Learning Environment** : Combines theory with quizzes, games, and practice tools, making PHP learning more engaging.
- **Beginner-Friendly Platform** : Simple user interface and structured modules help beginners easily understand Core PHP concepts.
- **Gamification-Based Motivation** : Score, level, and streak systems motivate users to practice regularly and improve performance.
- **Centralized Learning System** : Learning modules, tools, quizzes, and practice activities are available in one platform.
- **Progress Tracking** : Registered users can track their score, accuracy, level, and daily learning streak.
- **Guest Access Feature** : Allows users to explore learning content without registration, increasing accessibility.
- **Admin Control & Monitoring** : Admin can efficiently manage users, feedback, and contact messages from a single dashboard.
- **Cost-Effective & Open Source** : Built using Core PHP and MySQL, making it affordable and easy to maintain.
- **Scalable Design** : New tools, modules, and features can be added without major system changes.

TECHNICAL DESCRIPTION

1). Hardware Requirements :

Since SmartlyGoPHP is developed as a web-based application, it does not require high-end hardware. Any standard computer or laptop capable of running a web browser and local server environment can run the system efficiently.

Minimum Hardware Requirements :

- **Processor :** Intel i3 / AMD Ryzen 3 or higher
- **RAM :** Minimum 4 GB (8 GB recommended for smoother multitasking)
- **Storage :** At least 1 GB free space for project files, server setup, and database
- **Display :** Minimum 1366 × 768 screen resolution
- **Internet Connection :** Required for accessing the application in hosted mode

2). Software Requirements :

The software environment for SmartlyGoPHP is based on open-source and widely used web technologies, ensuring cost-effectiveness, flexibility, and easy deployment.

Software Stack Used :

- **Operating System :** Windows 10 / 11 (Compatible with Linux and macOS)
- **Programming Language :** PHP 8.0 or higher (Core PHP)
- **Frontend Technologies :** HTML5, CSS3, JavaScript
- **Database :** MySQL (using phpMyAdmin for management)
- **Web Server :** Apache Server (via XAMPP / WAMP / LAMP)
- **Browser :** Google Chrome, Mozilla Firefox, or any modern browser
- **IDE / Code Editor :** VS Code / Sublime Text / PHPStorm

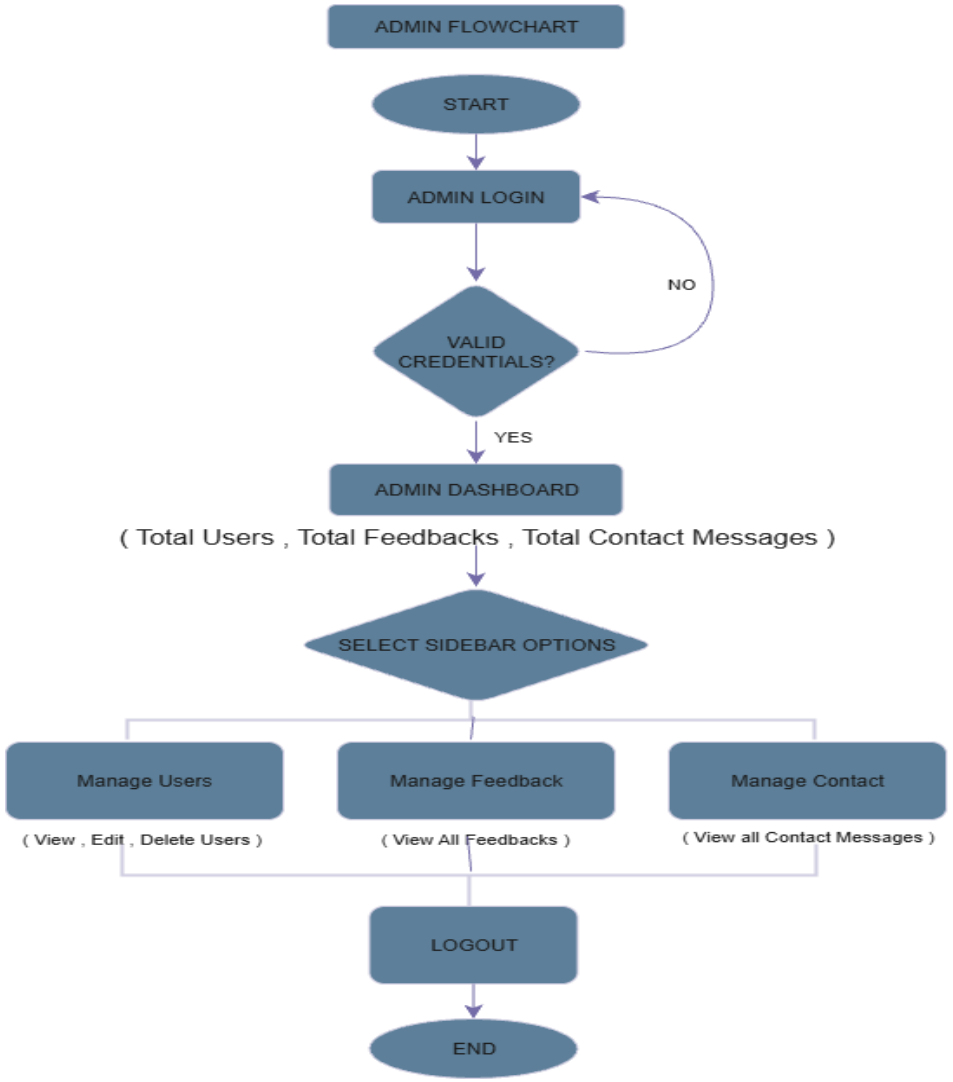
DESIGN DIAGRAMS USED IN SmartlyGoPHP

This project is supported with multiple design diagrams that clearly represent the system structure, data flow, and interaction between different modules:

- **Flow Diagram** → Illustrates the complete working flow of both **Admin** and **User** modules in SmartlyGoPHP.
- **Data Flow Diagram (DFD – Level 0)** → Provides a high-level overview of the system, showing how data flows between the user, admin, and the SmartlyGoPHP system.
- **Data Flow Diagram (DFD – Level 1)** → Explains detailed data flow separately for **Admin** and **User** modules, including processes such as authentication, learning tools, feedback, and contact handling.
- **Sequence Diagram (Authentication)** → Depicts the step-by-step interaction during the **login and authentication process** between user/admin, system, and database.
- **Use Case Diagram** → Represents the interactions between **Admin**, **User**, and the SmartlyGoPHP system, highlighting major functionalities like learning modules, tools, feedback, and management operations.
- **Class Diagram** → Describes the system classes, their attributes, methods, and relationships, providing a structural view of the SmartlyGoPHP application.

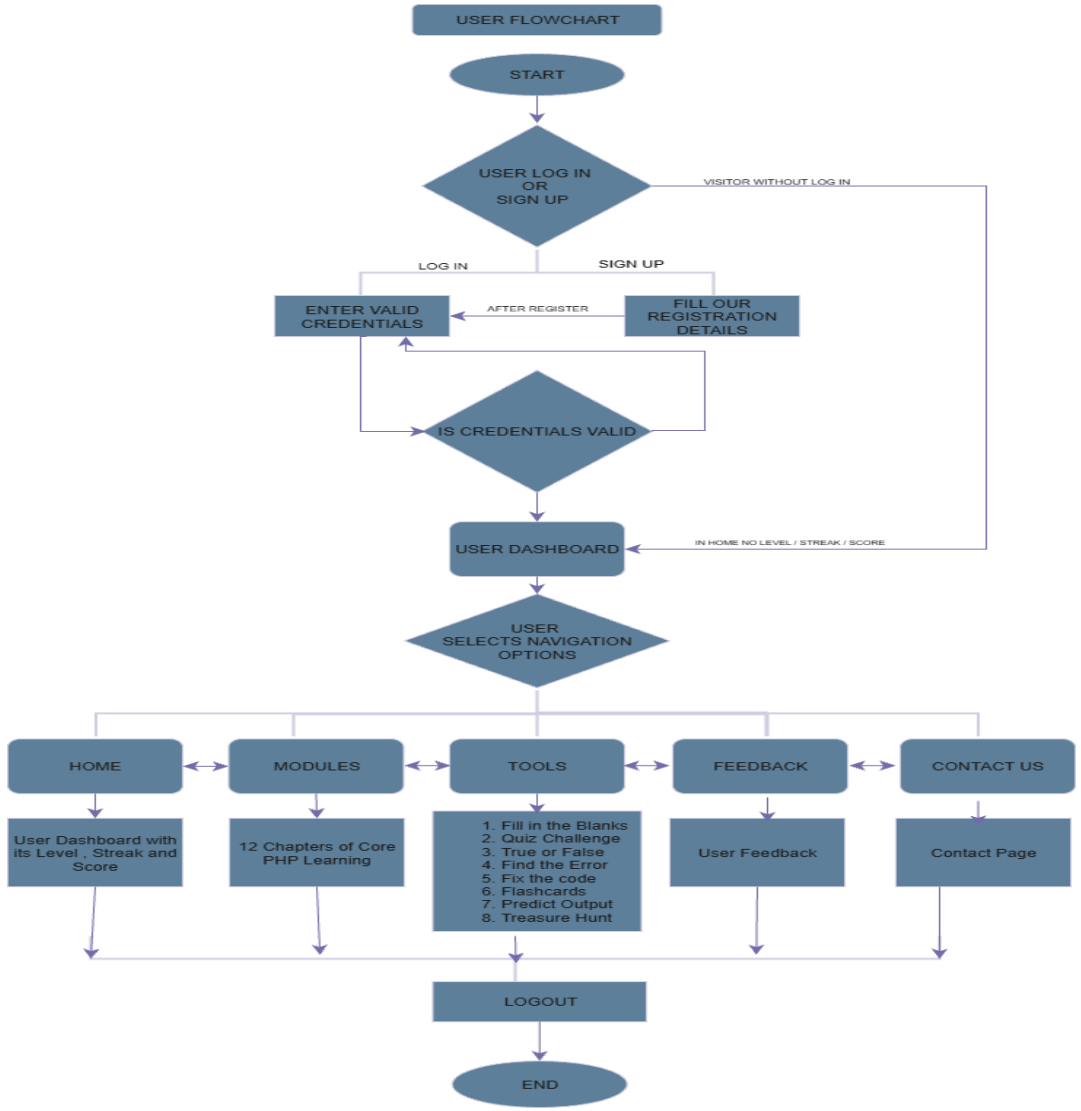
These diagrams collectively help in understanding the **overall architecture, workflow, and internal design** of the SmartlyGoPHP system in a clear and organized manner.

FLOW CHART OF ADMIN



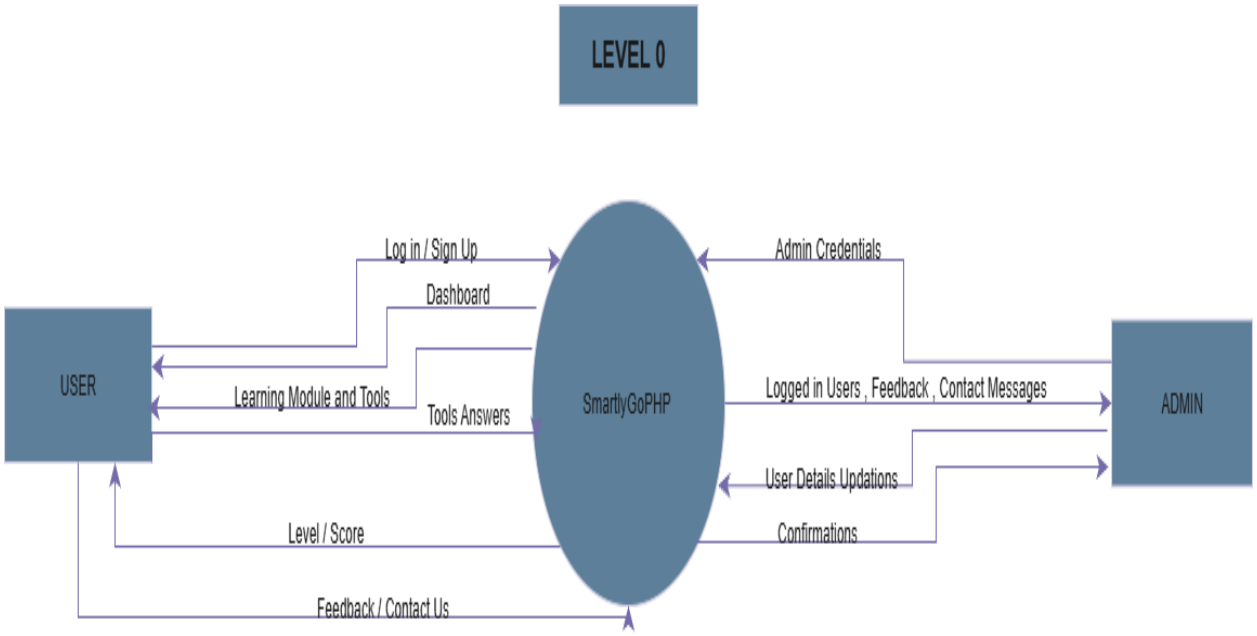
Illustrates the complete working flow of **Admin** module of SmartlyGoPHP.

FLOW CHART OF USER



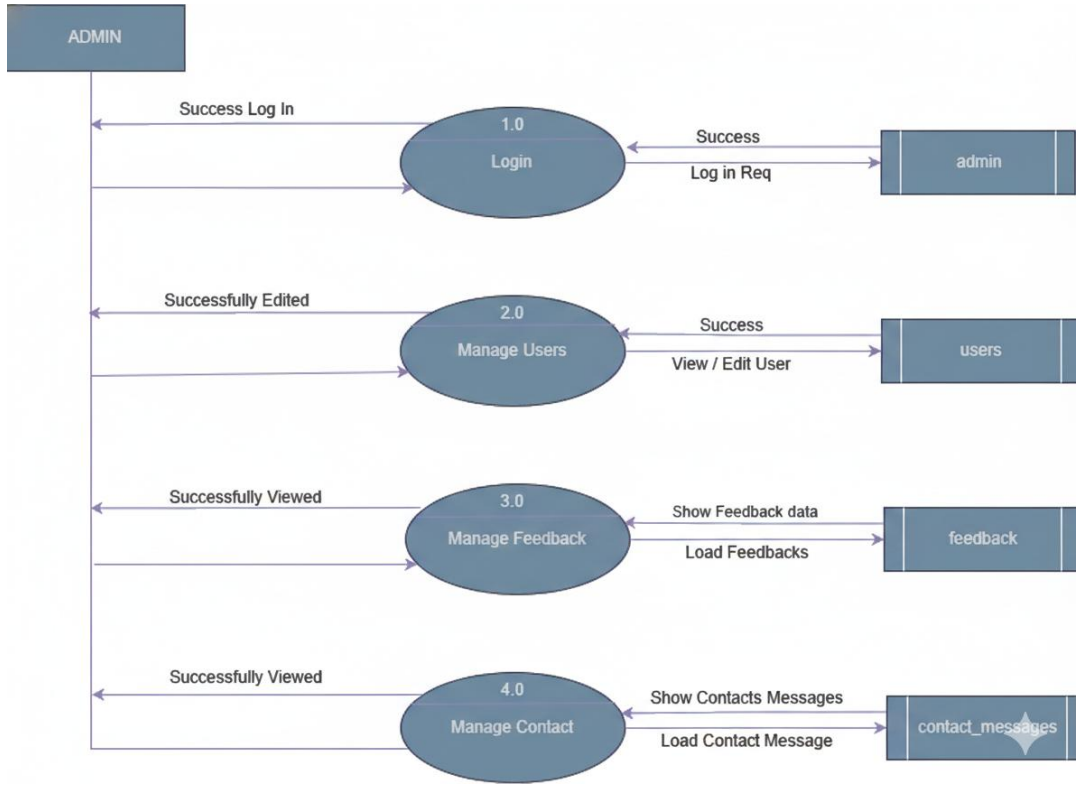
Illustrates the complete working flow of **User** module of SmartlyGoPHP.

DFD LEVEL 0



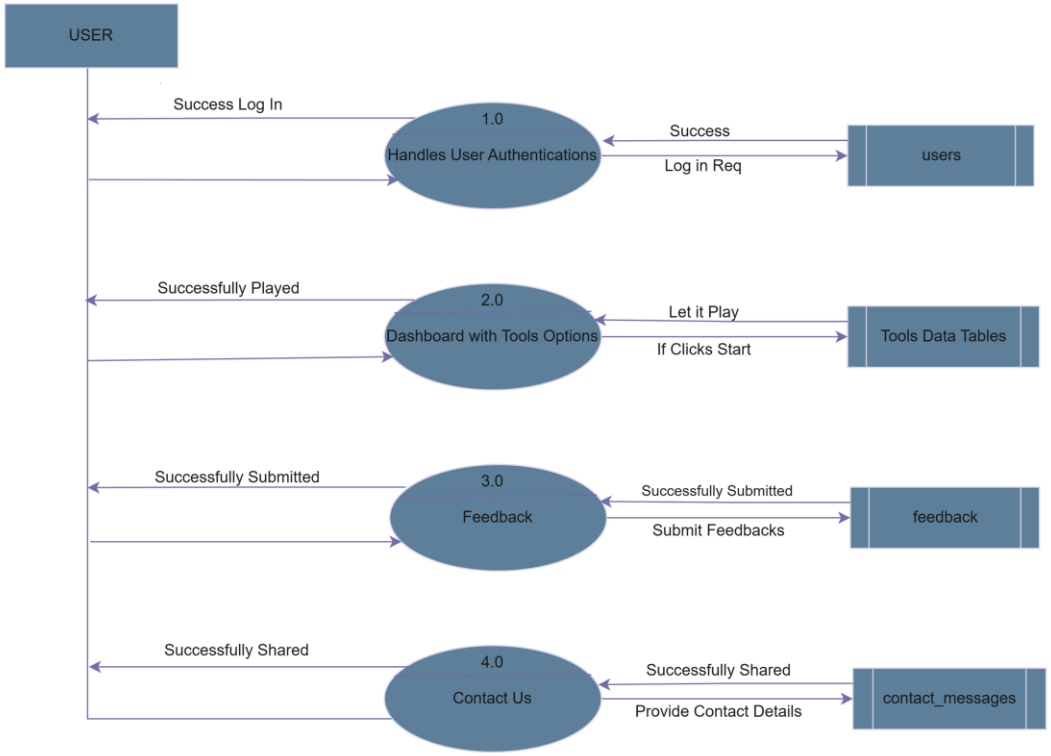
Provides a high-level overview of the system, showing how data flows between the user, admin, and the SmartlyGoPHP system.

DFD LEVEL 1 ADMIN



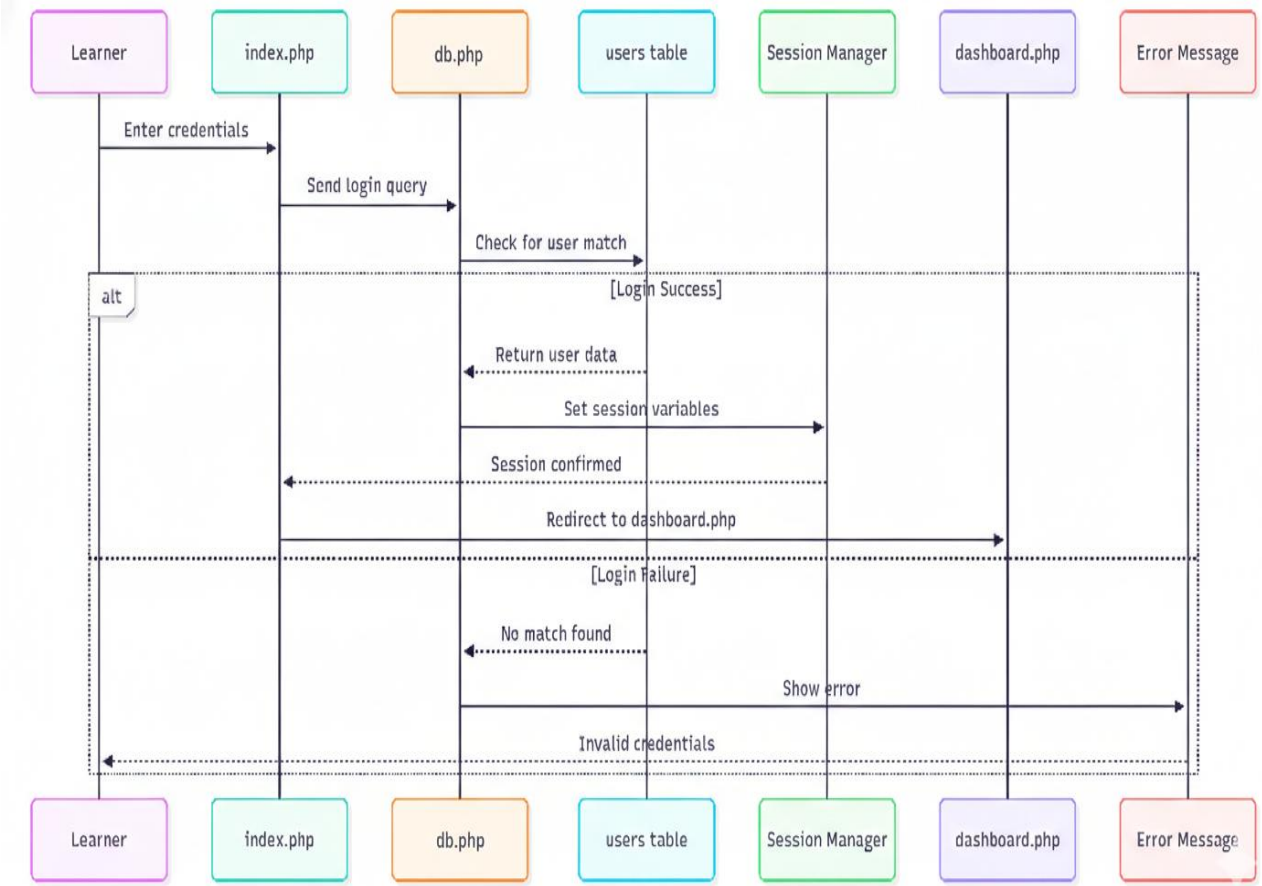
Explains detailed data flow separately for **Admin** module , including processes such as authentication, Edit/View Users , feedback, and contact handling.

DFD LEVEL 1 USER



Explains detailed data flow separately for **User** module , including processes such as authentication, learning tools, feedback, and contact handling.

SEQUENTIAL DIAGRAM (AUTHENTICATION)

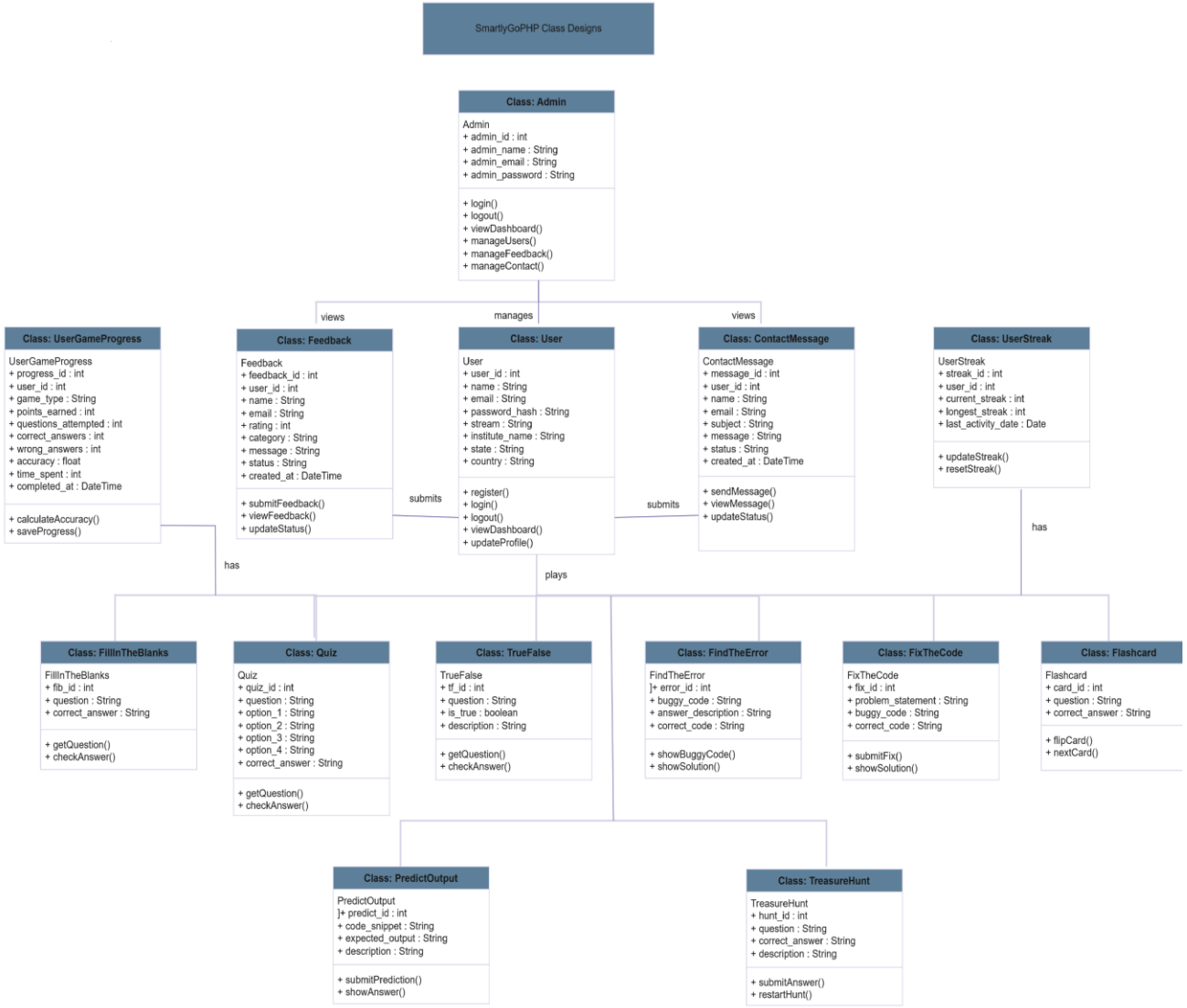


Depicts the step-by-step interaction during the **login and authentication process** between user/admin, system, and database.

USE CASE DIAGRAM

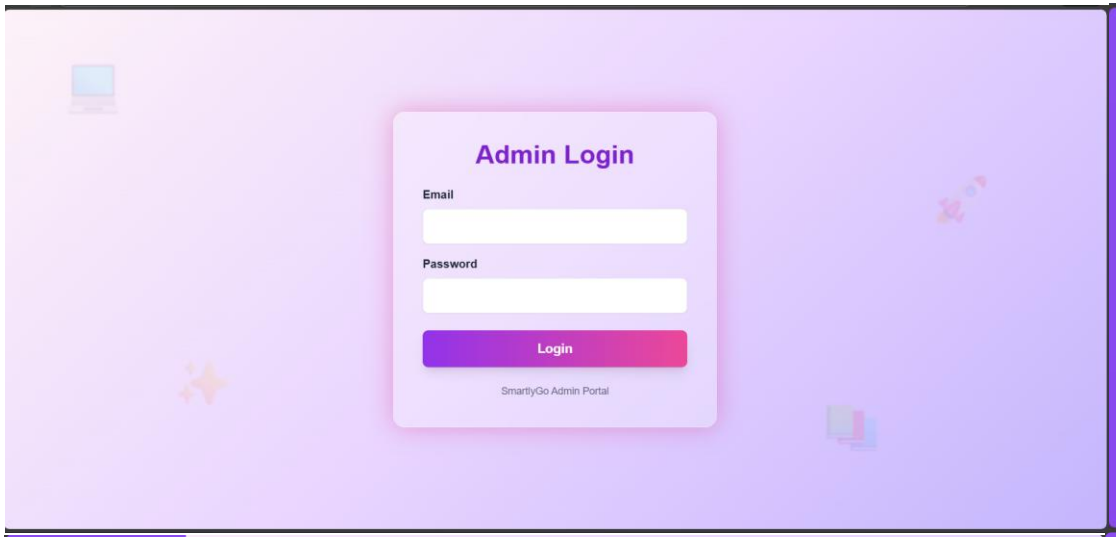
Depicts the step-by-step interaction during the **login and authentication process** between user/admin, system, and database.

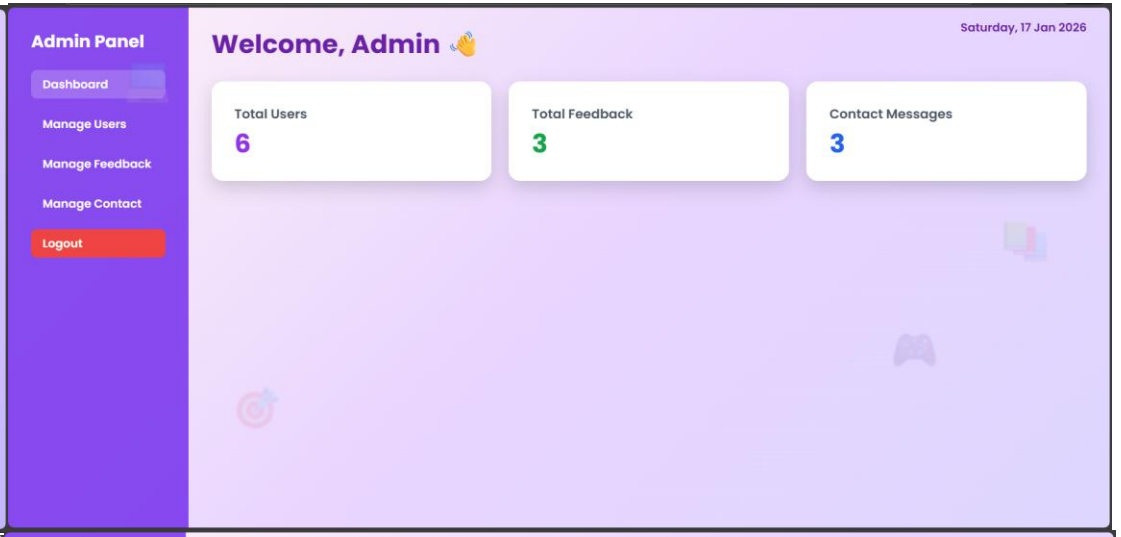
CLASS DIAGRAM

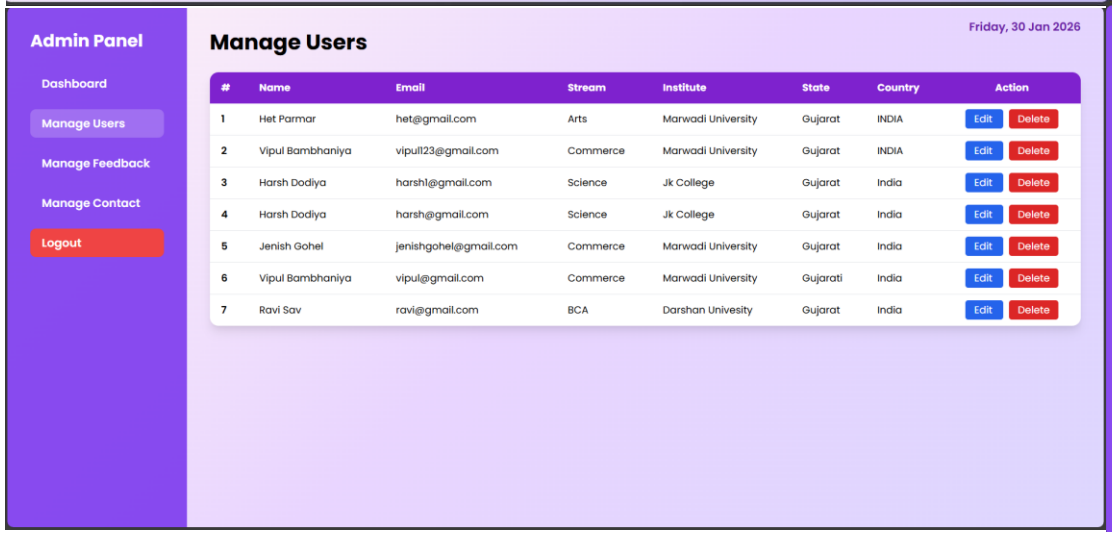


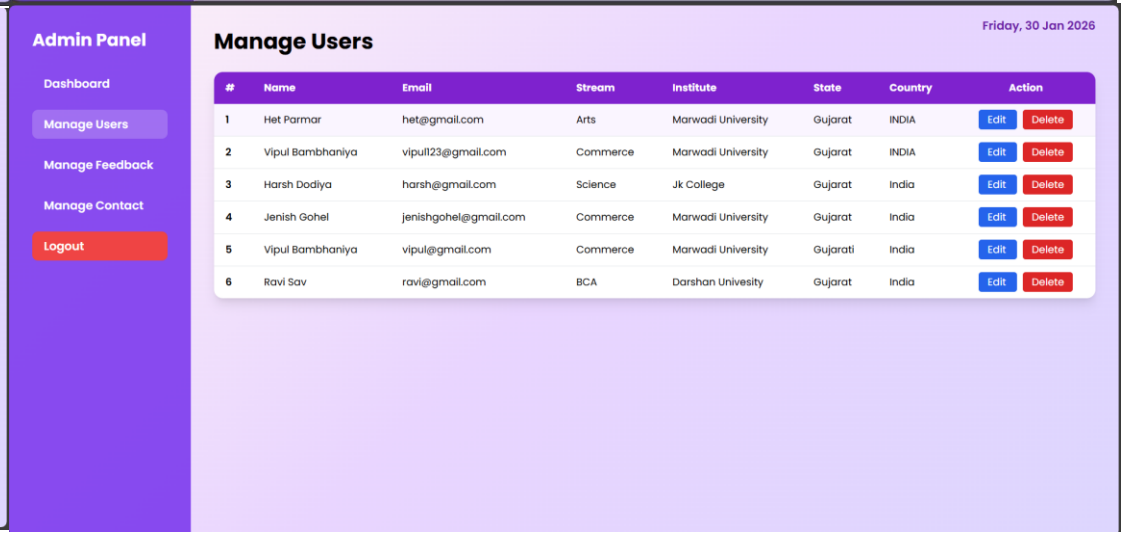
Describes the system classes, their attributes, methods, and relationships, providing a structural view of the SmartlyGoPHP application.

GUI OVERVIEW (SCREEN DESIGN)

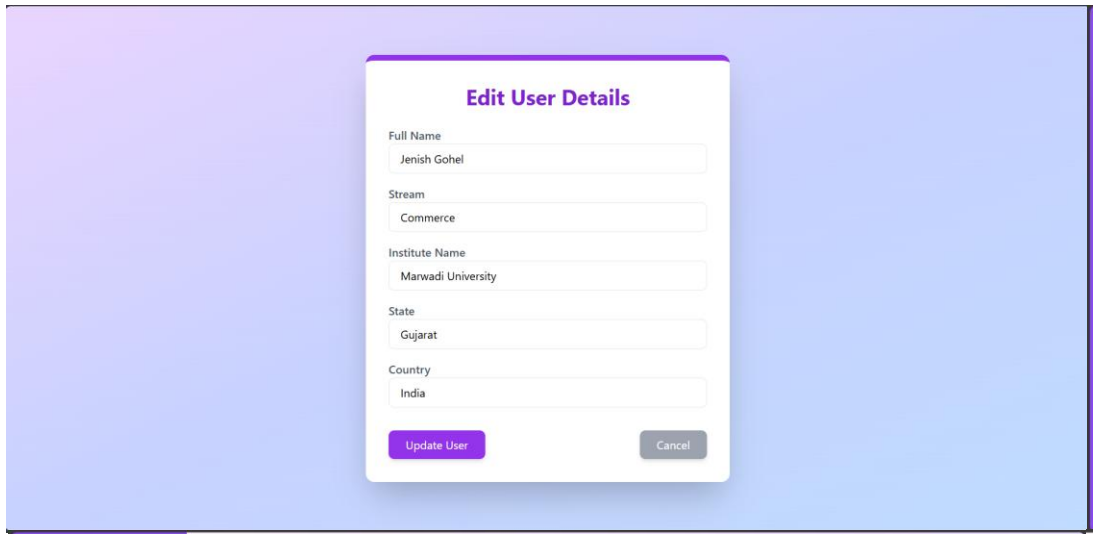


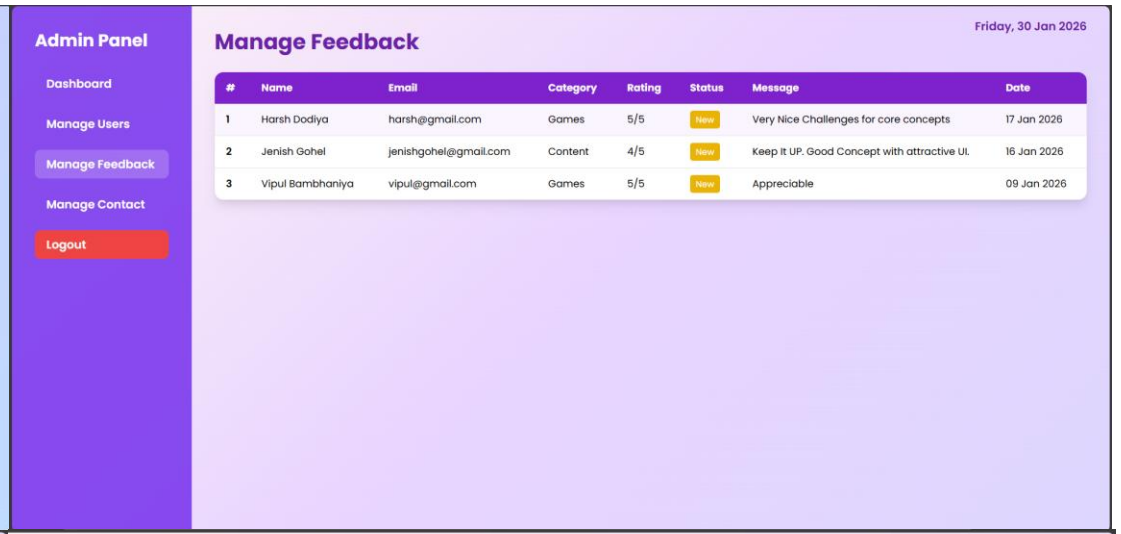


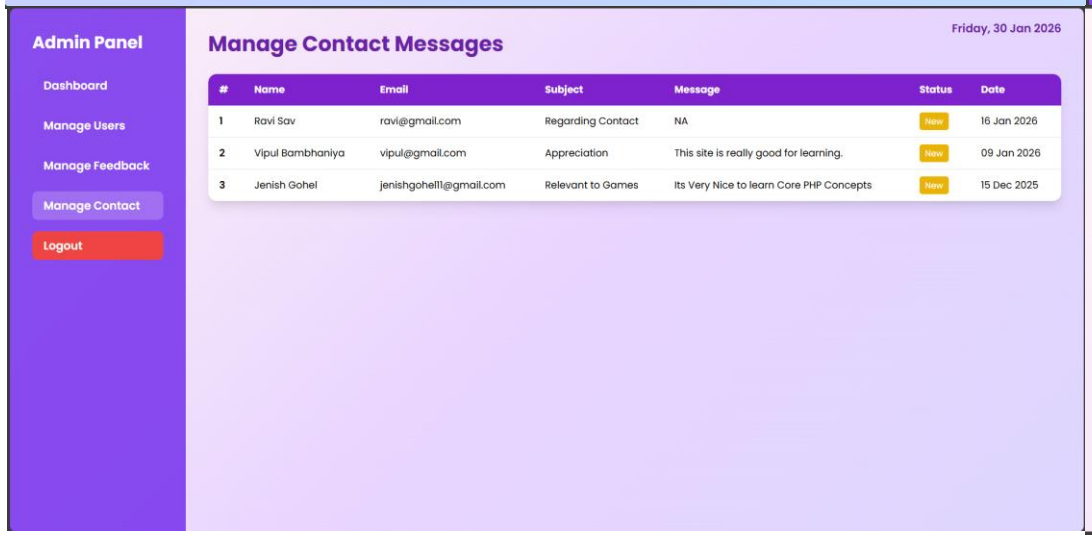


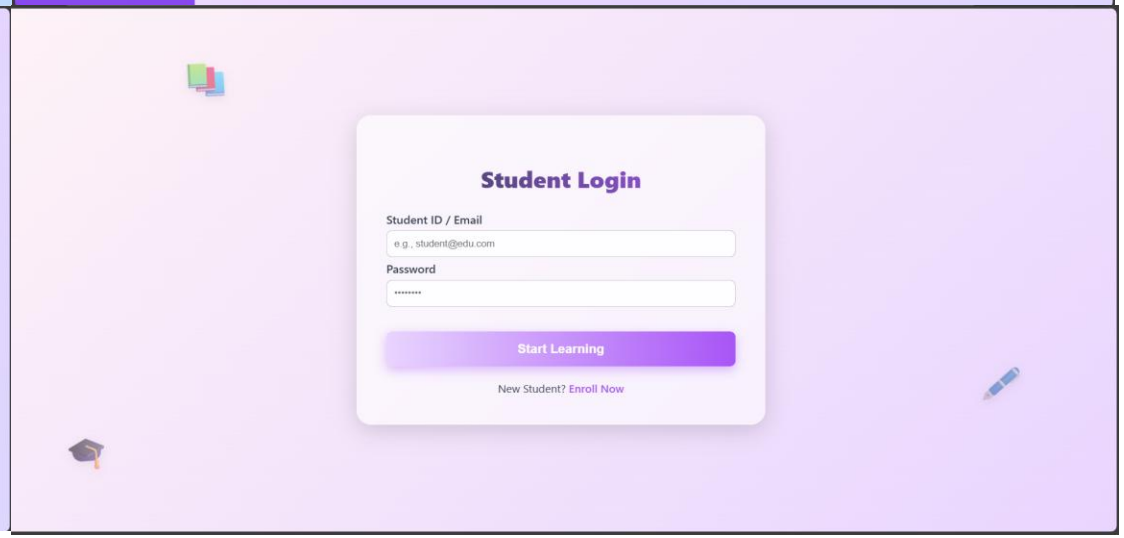


GUI OVERVIEW (SCREEN DESIGN)

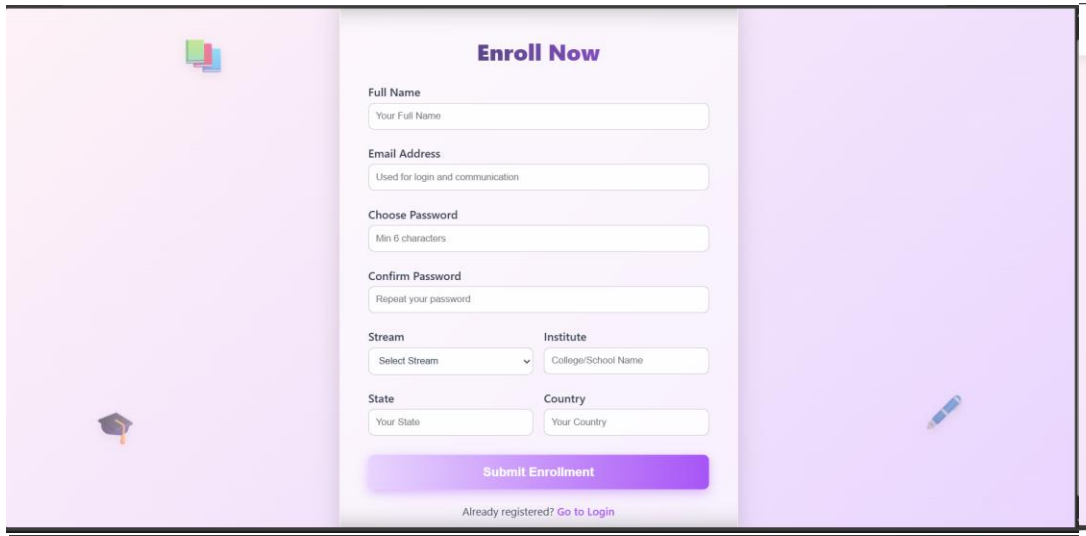


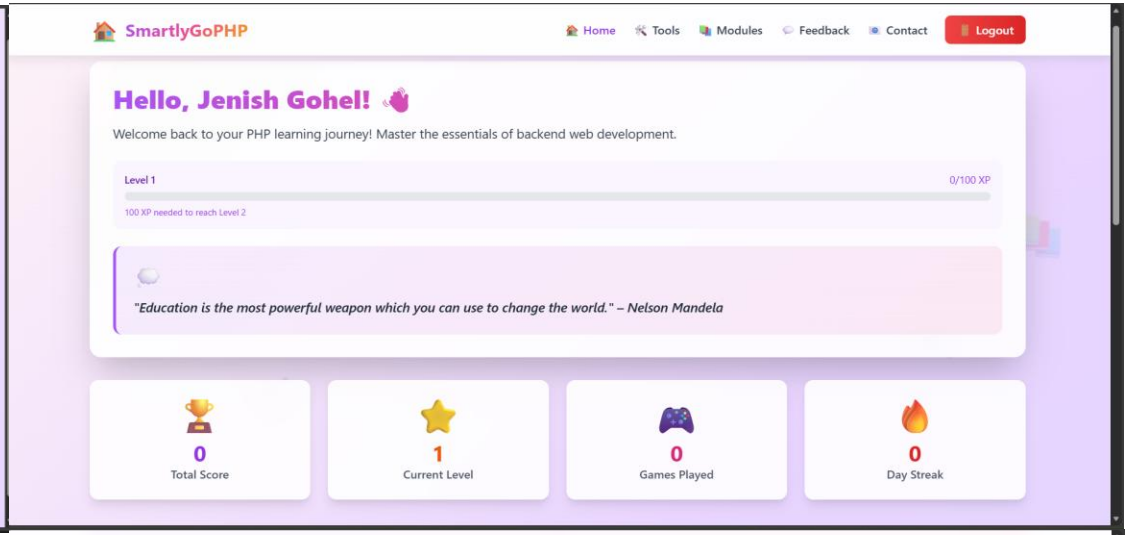


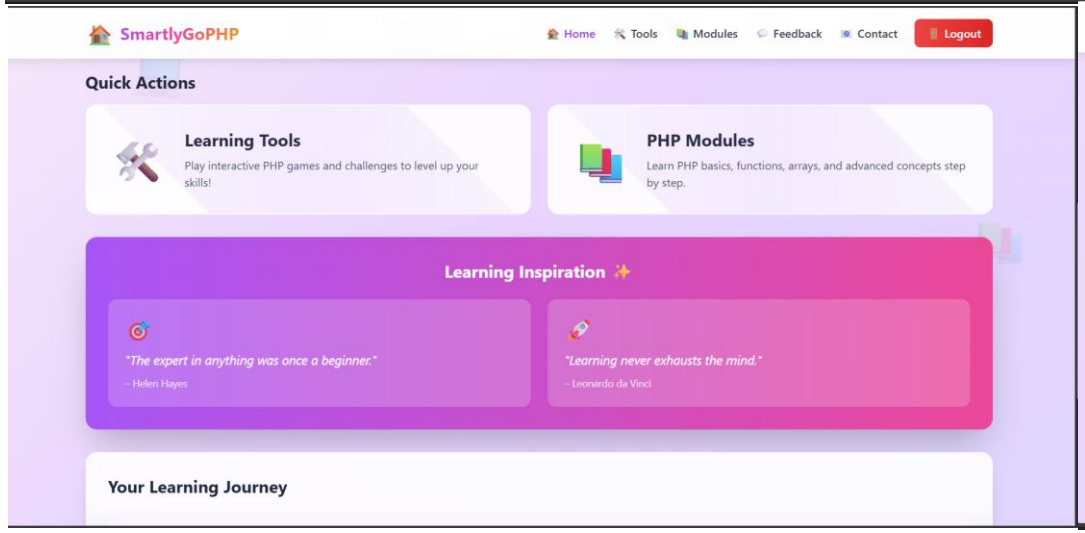


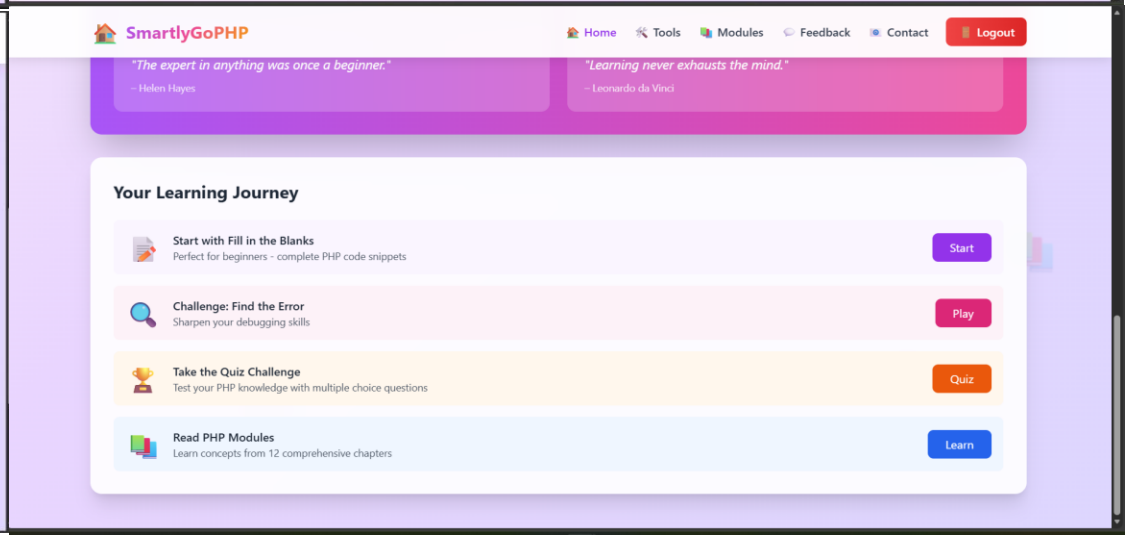


GUI OVERVIEW (SCREEN DESIGN)

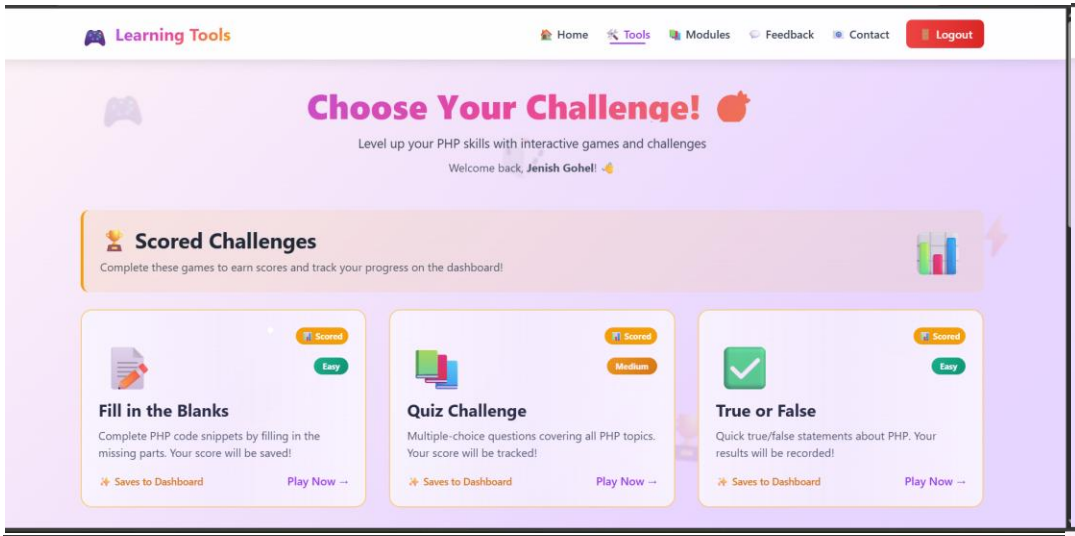


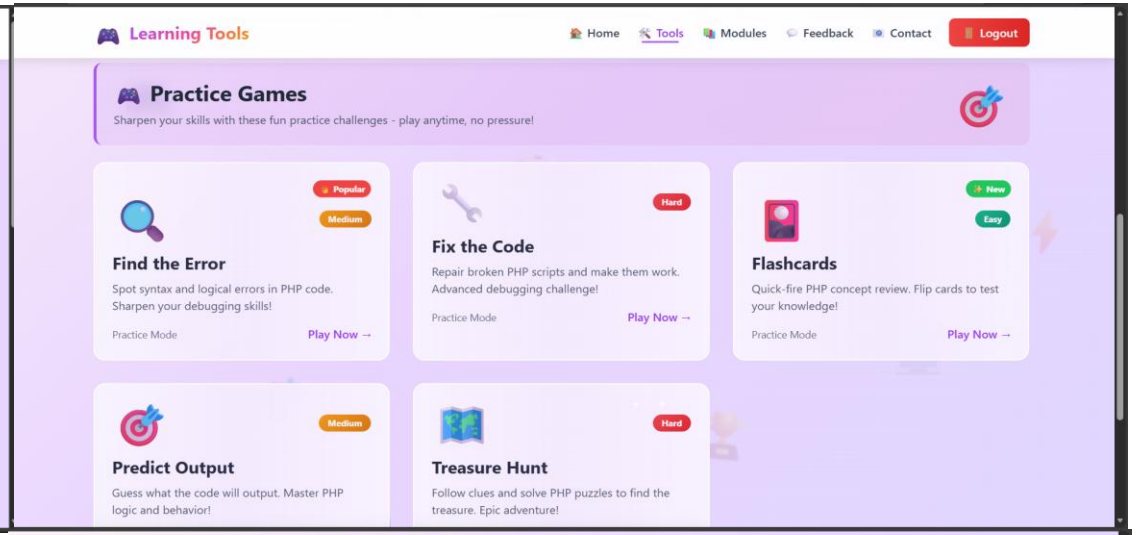


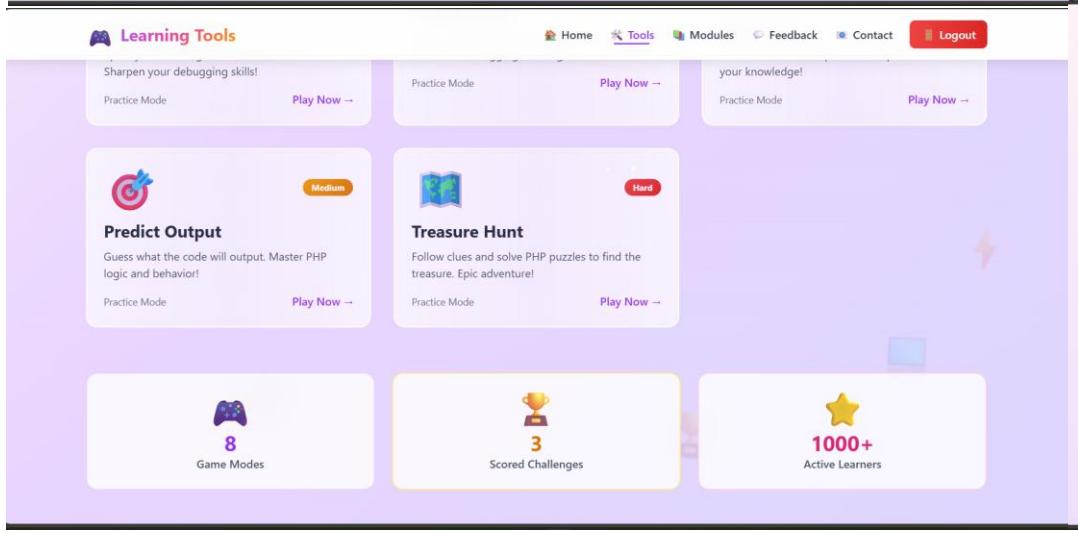


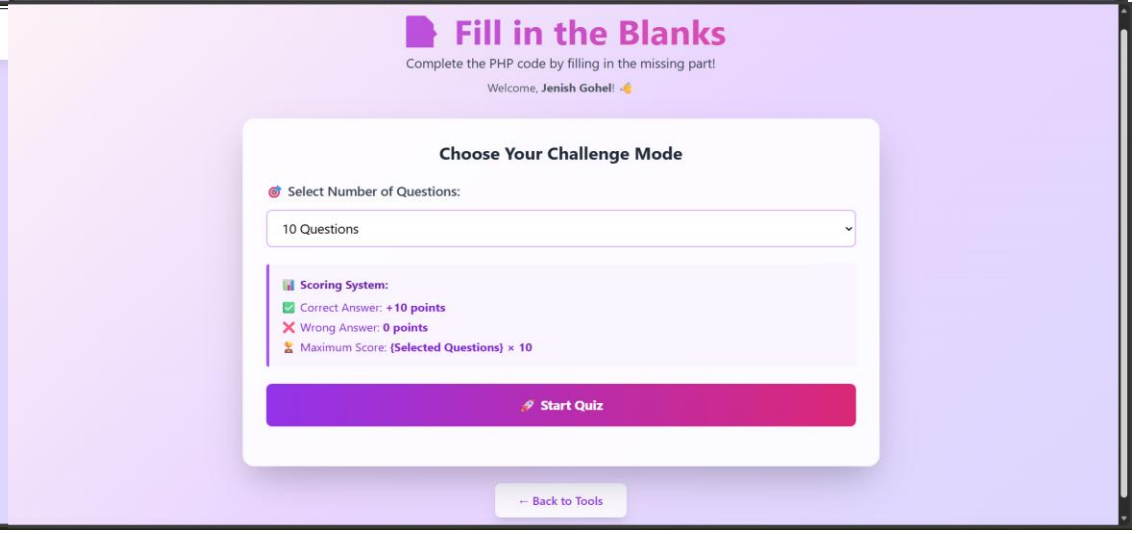


GUI OVERVIEW (SCREEN DESIGN)

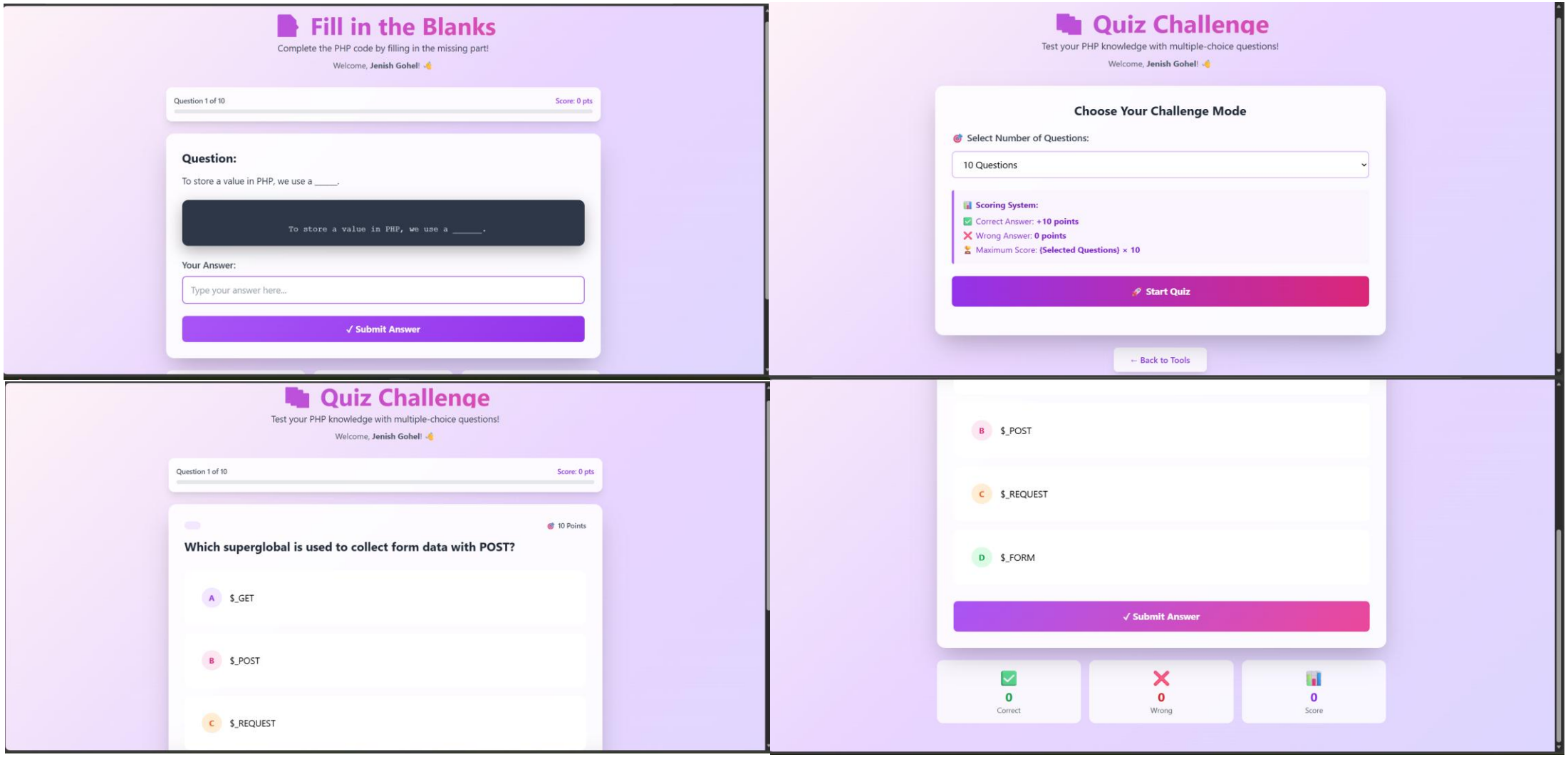




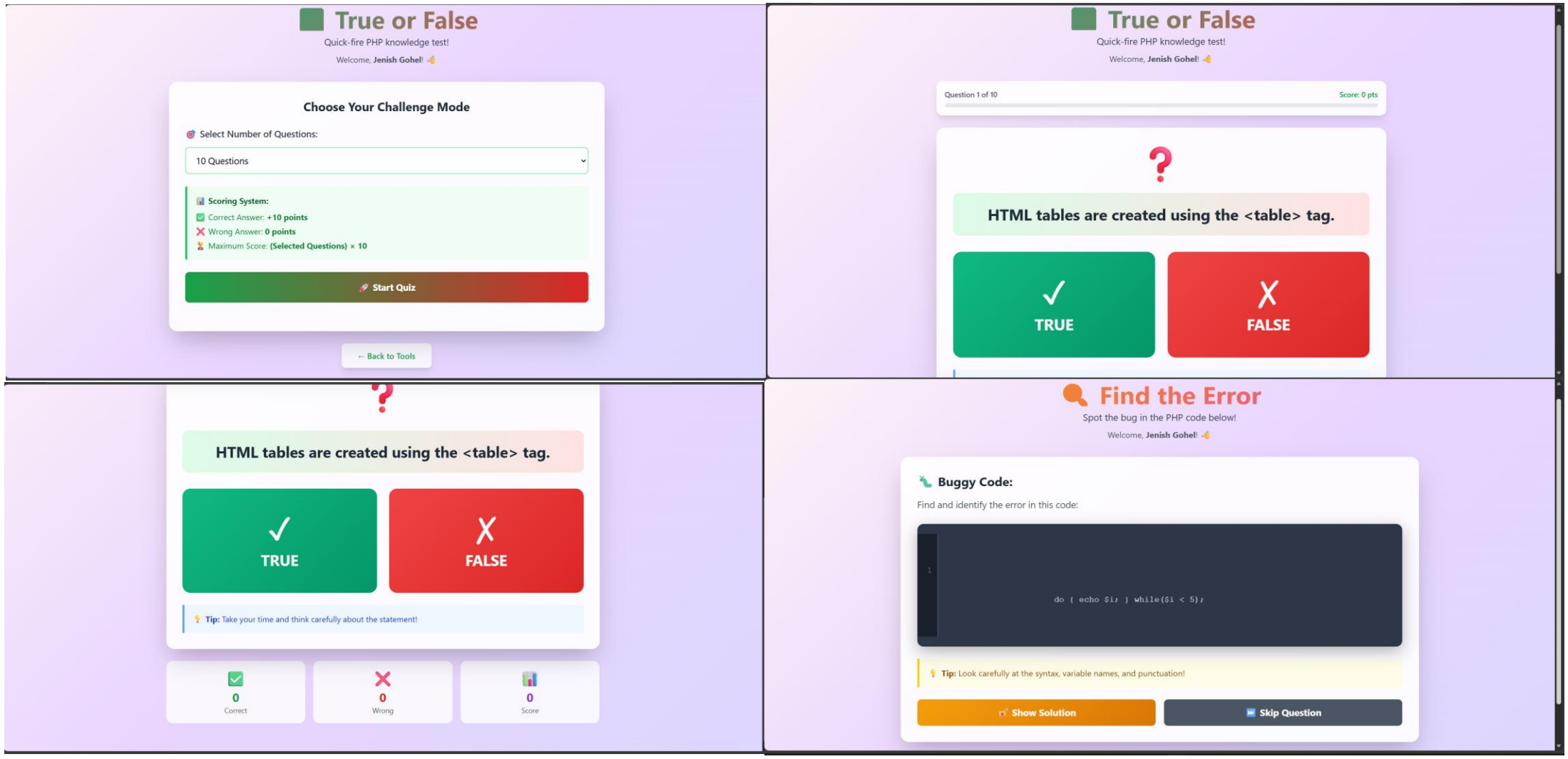




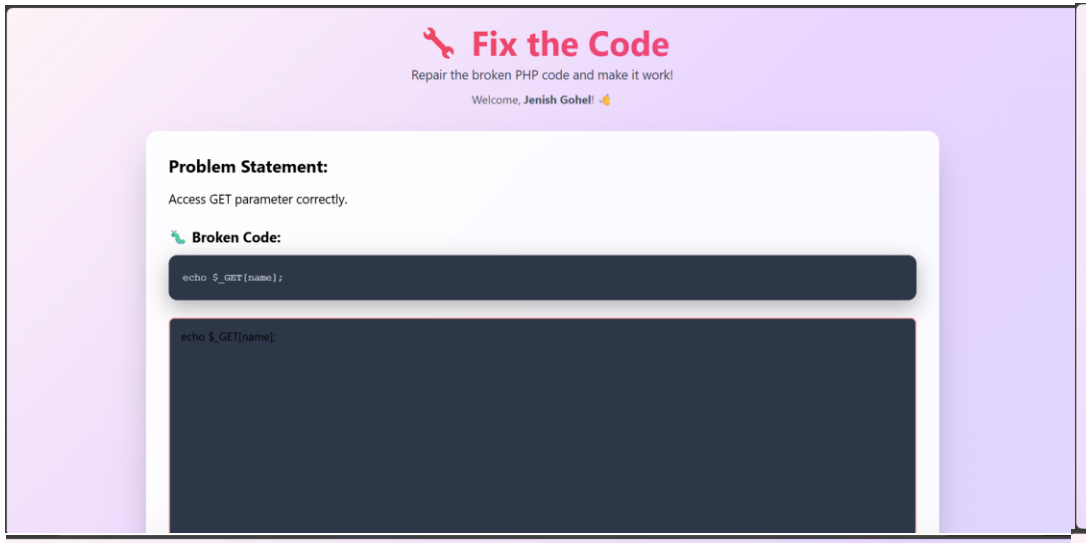
GUI OVERVIEW (SCREEN DESIGN)

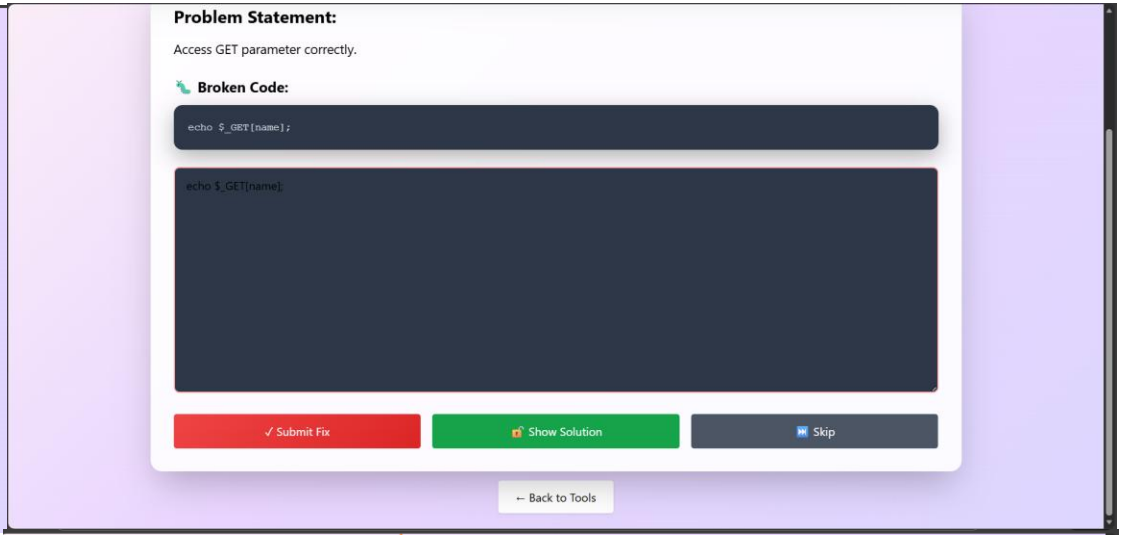


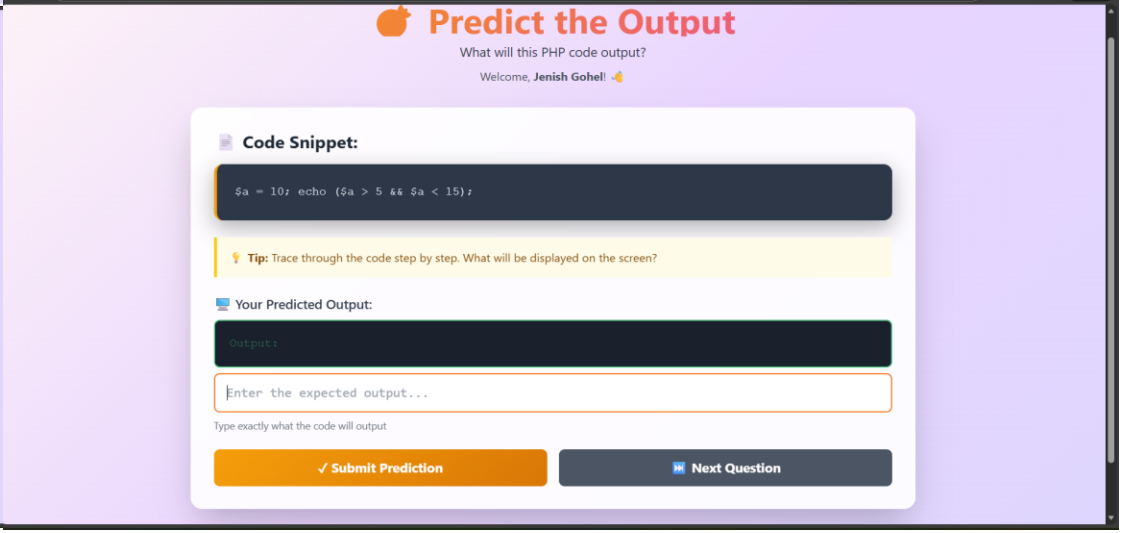
GUI OVERVIEW (SCREEN DESIGN)



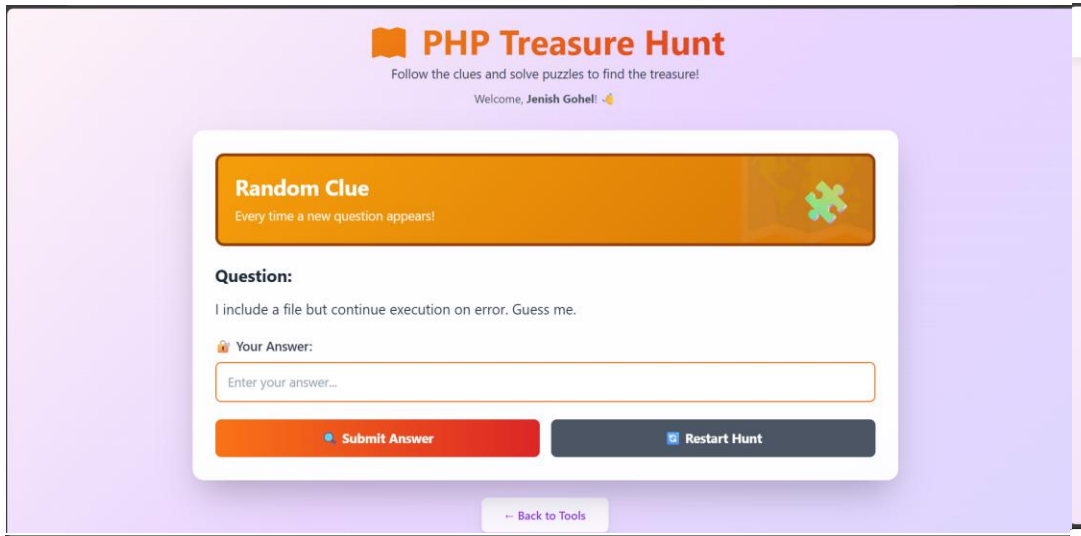
GUI OVERVIEW (SCREEN DESIGN)

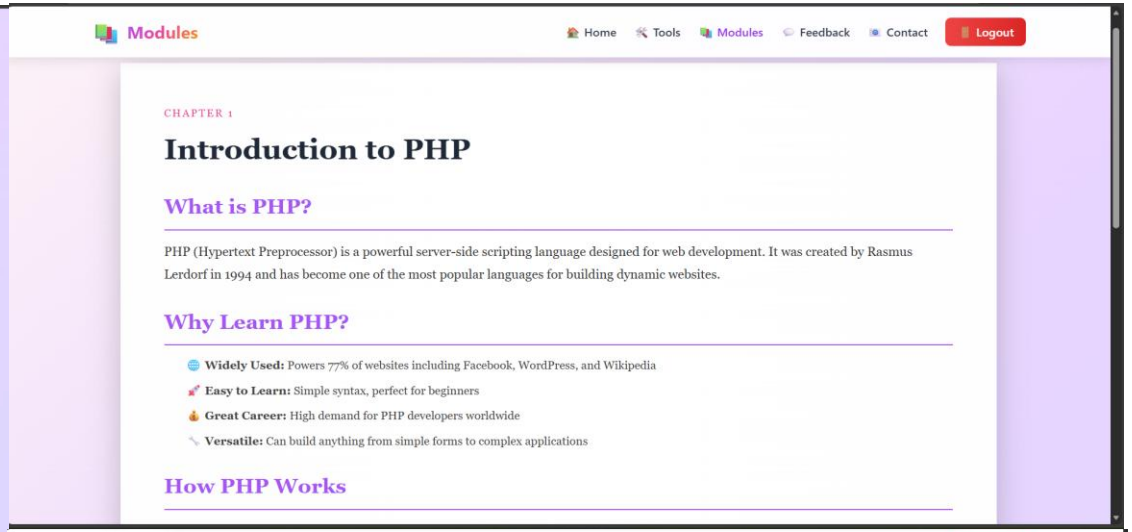


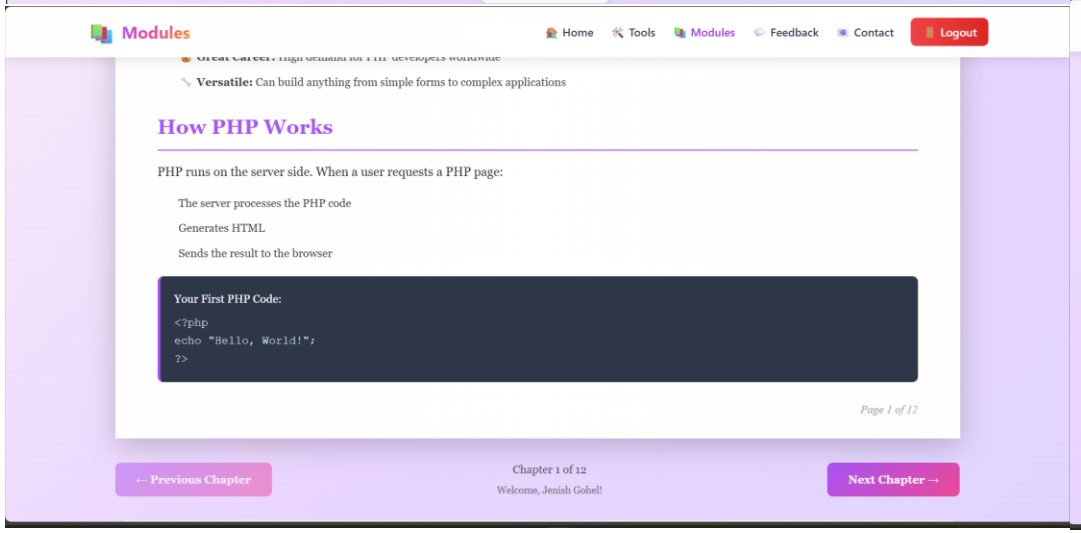


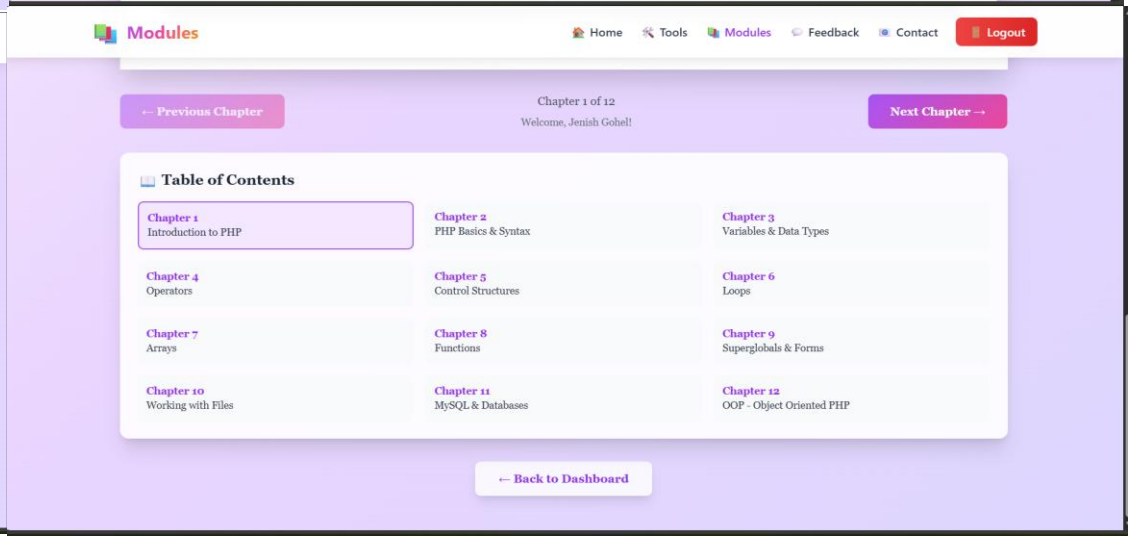


GUI OVERVIEW (SCREEN DESIGN)

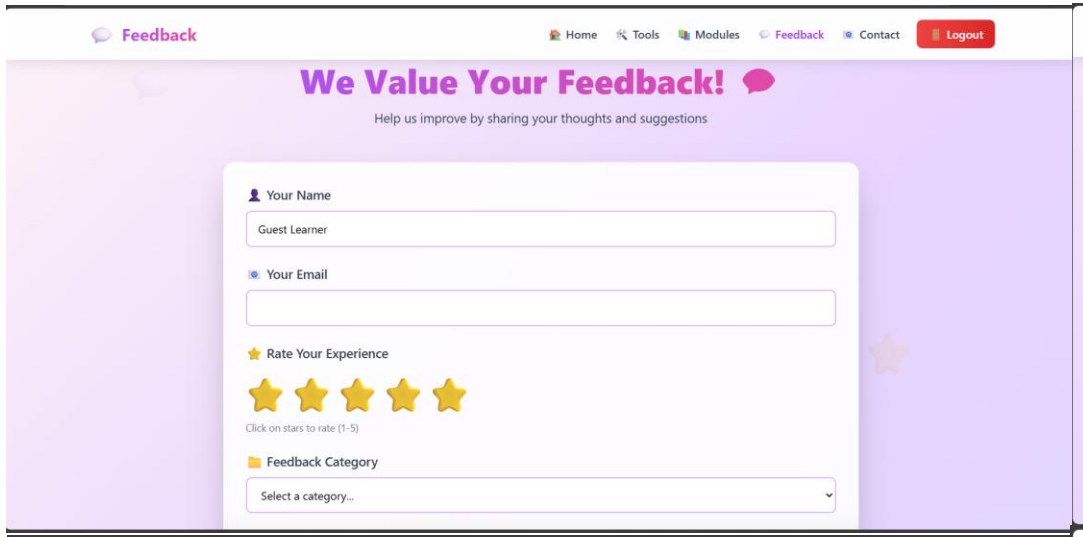


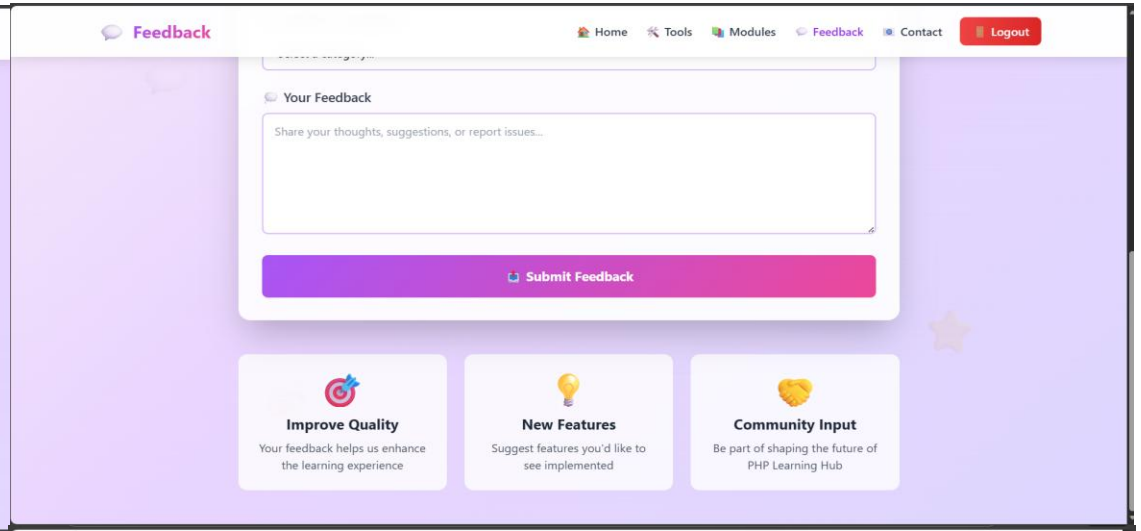


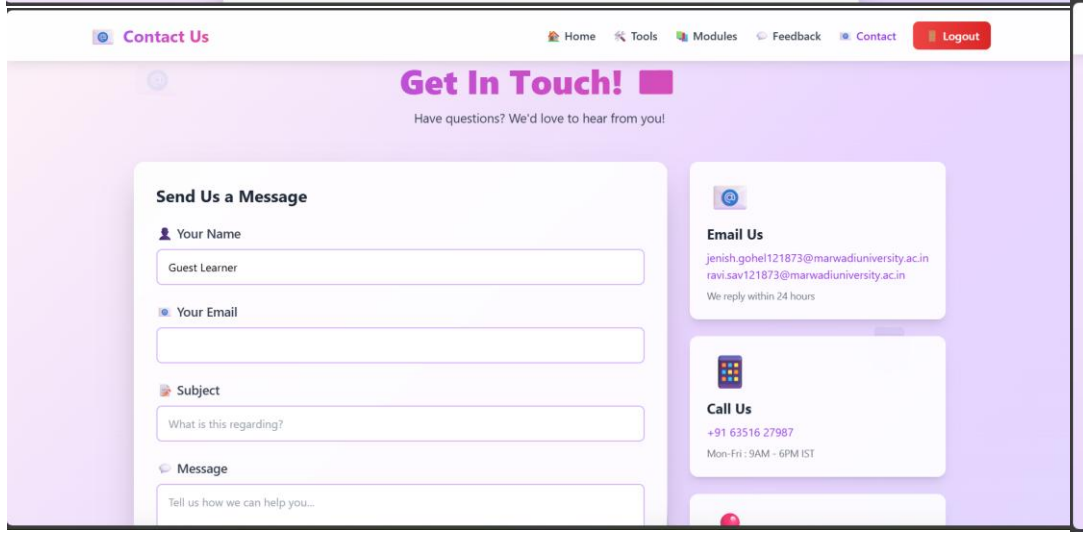


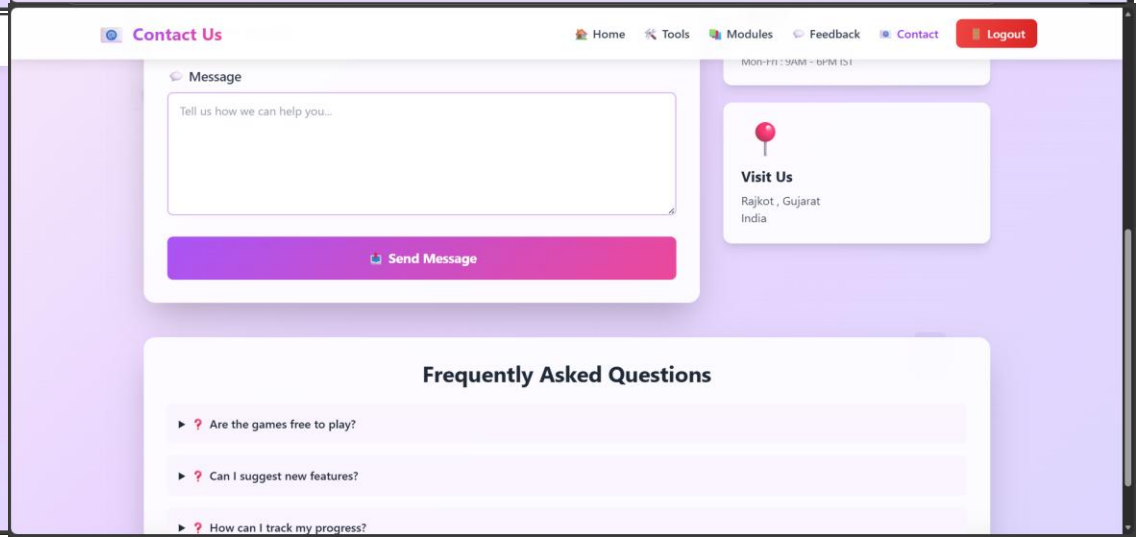


GUI OVERVIEW (SCREEN DESIGN)

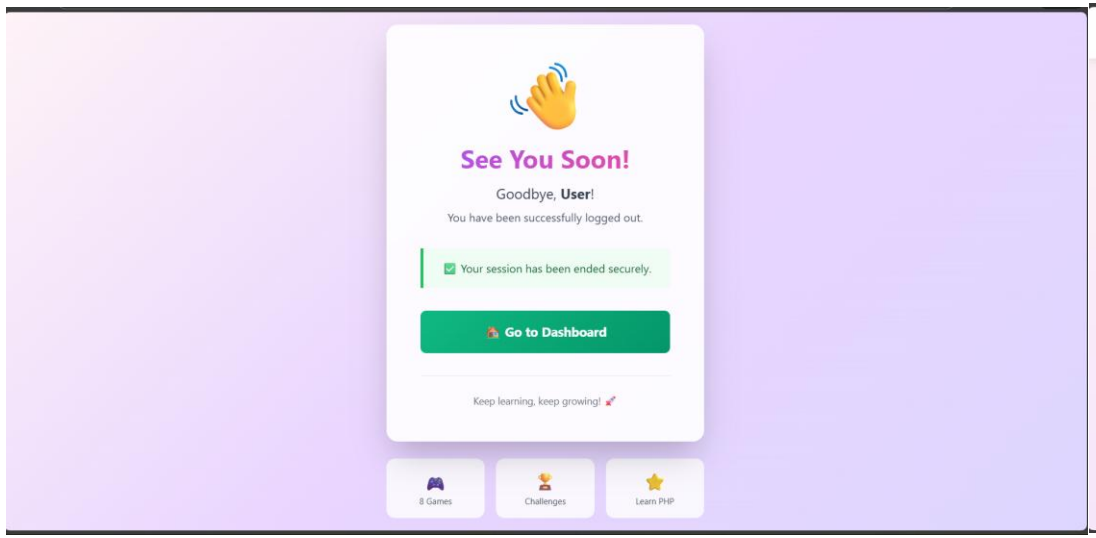


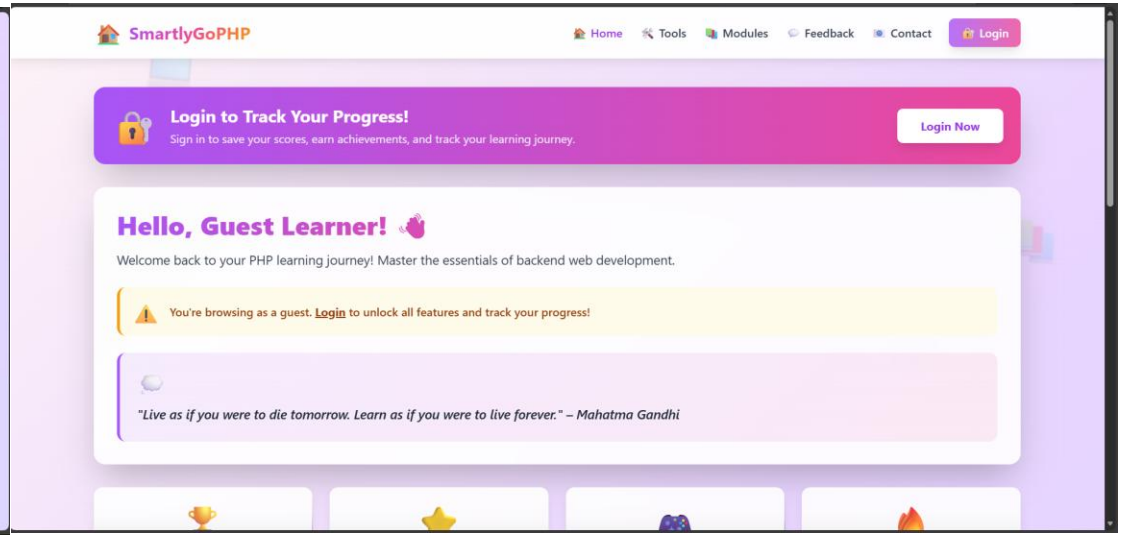






GUI OVERVIEW (SCREEN DESIGN)





FUTURE ENHANCEMENTS

The **SmartlyGoPHP** platform has been designed with scalability in mind. The following enhancements can be implemented in the future to improve functionality and user experience:

- **Advanced PHP Modules:**
  Add advanced PHP topics such as OOP in PHP, MVC framework concepts, security practices, and API development.

- **Leaderboards & Rankings:**
  Introduce global and weekly leaderboards to encourage healthy competition among learners.

- **Certificate Generation:**
  Provide completion certificates based on user performance and achieved levels.

- **User Analytics Dashboard:**
  Show detailed analytics such as performance trends, accuracy graphs, and learning progress reports.

- **Admin Content Management:**
  Allow admin to add, update, and manage questions and learning modules dynamically.

- **AI-Based Recommendations:**
  Suggest learning modules and tools based on user performance and weak areas.

- **Multi-Language Support:**
  Support multiple languages to make the platform accessible to a wider audience.

LEARNING DURING PROJECT

- Gained practical knowledge of Core PHP including authentication, sessions, and form handling
- Learned MySQL database design, table relationships, and data management
- Improved skills in HTML, CSS, and JavaScript for interactive UI development
- Understood user progress tracking, scoring logic, and gamification concept
- Learned admin–user module separation and role-based access control
- Enhanced problem-solving, debugging, and testing skills
- Improved project planning, documentation, and presentation skills

BIBLIOGRAPHY

Online References:

[1] PHP Group, *PHP Manual*. [Online]. Available: https://www.php.net/. [Accessed: Sept. 10, 2026].

[2] Oracle Corporation, *MySQL Official Documentation*. [Online]. Available: https://dev.mysql.com/doc/. [Accessed: Sept. 10, 2026].

[3] W3Schools, *PHP and MySQL Tutorials*. [Online]. Available: https://www.w3schools.com/. [Accessed: Sept. 10, 2026].

[4] Mozilla Developer Network (MDN), *Web Development Documentation*. [Online]. Available: https://developer.mozilla.org/. [Accessed: Sept. 10, 2026].

[5] Stack Overflow, *Community-Based Troubleshooting Platform for Developers*. [Online]. Available: https://stackoverflow.com/. [Accessed: Sept. 10, 2026].

Offline References:

[6] R. Nixon, *Learning PHP, MySQL & JavaScript*, 5th ed. Sebastopol, CA: O'Reilly Media, 2018.

[7] Learning during academic laboratory sessions and theory classes, Marwadi University, India.

[8] PHP & MySQL study materials provided by the University.

[9] Project development and implementation based on core software engineering principles learned during coursework.

[10] Conceptual inspiration and learning support from various educational platforms and coding challenge resources.

CONCLUSION

The **SmartlyGoPHP** project successfully delivers an interactive and gamified learning platform for understanding **Core PHP concepts**. By combining structured learning modules with practical tools and games, the system enhances both conceptual clarity and hands-on programming skills.

Key Outcomes:

- Developed a complete PHP-based learning system with Admin and User modules
- Successfully implemented gamification using score, level, and streak tracking
- Enabled practice-based learning through scoring and non-scoring tools
- Designed a secure and well-structured database for users, progress, and feedback
- Provided guest access while preserving progress only for registered users
- Created a scalable and maintainable system suitable for academic use

Overall, SmartlyGoPHP meets its objectives by offering a **user-friendly, engaging, and effective PHP learning environment**, making it valuable for students and beginners.

Project Repository Link of GitHub : https://github.com/JenishGohel/SmartlyGoPHP.git

THANK YOU