

Project Report: Web-Based Application for a Training Management System

Overview

This project involves the development of a comprehensive web-based application designed to manage and streamline operations within a training organization. The system incorporates multiple panels tailored for different user roles, including Admin, Trainers, and Subscribers. The application leverages modern web technologies to ensure a seamless user experience and robust functionality.

Technologies Used

The application is built using a combination of cutting-edge technologies:

- **Backend:**
 - **Python 3.9.6:** Core programming language for the backend logic.
 - **Django 3.2.5:** Web framework used for rapid development and clean, pragmatic design.
 - **PostgreSQL 13.3:** Relational database system used for storing and managing data.
 - **Django Channels:** Enables real-time notifications within the application.
- **Frontend:**
 - **Bootstrap 5:** Framework for creating responsive and mobile-first web designs.
 - **JavaScript:** Adds interactivity to the frontend components.
 - **JQuery 3.6.0:** Simplifies HTML DOM tree traversal and manipulation.
 - **HTML 5 & CSS 3:** Standard technologies for structuring and styling the web pages.

Panels Overview

1. Admin Panel

The Admin Panel serves as the control center for the entire application, providing the administrator with a wide range of functionalities to manage both the website content and the interactions between trainers and subscribers.

- **User Authentication:** Secure login system for admins.

- **Manage Website Content:** Tools to add, edit, or delete content across the frontend website.
- **Manage Services:** Full control over the list of services offered.
- **Manage Trainers:** Ability to add, edit, or delete trainer profiles.
- **Manage Subscribers:** Manage subscriber data including adding, editing, or deleting records.
- **Manage Notifications:** Create, edit, or delete notifications for trainers and subscribers.
- **Assign Subscribers to Trainers:** Allocate or remove subscribers from specific trainers.
- **Communication:** Admin can send or receive emails/messages to/from subscribers or trainers.
- **Salary Management:** Admin can manage trainer salaries.
- **Payment Management:** Handle payment transactions made by subscribers.
- **Settings:** Options to change the website's logo and other key settings.

2. Website (Frontend) Panel

The frontend panel is the public-facing side of the website, designed to be user-friendly and informative.

- **Home Page:**
 - **Banner Slider:** Dynamic content slider showcasing key services or announcements.
 - **Services Section:** Overview of the services offered.
 - **Enquiry Form:** Allows visitors to submit inquiries directly from the website.
- **About Us Page:** Detailed information about the organization.
- **Contact Us Page:** Contact details and a form for visitor queries.
- **Pricing Page:** Display of service pricing plans.
- **FAQ Page:** Answers to common questions to assist users.

3. Trainer Panel

The Trainer Panel is designed to give trainers the tools they need to manage their interactions with subscribers and the admin.

- **User Authentication:** Secure login system for trainers.
- **View Notifications:** Trainers can view and mark notifications as read.
- **Communication:** Trainers can send/receive emails/messages to/from the admin or subscribers.
- **Payments:** Trainers can view payment details related to their services.
- **Subscriber Management:** View assigned subscribers' details (read-only access).
- **Reporting:** Trainers can send reports about subscribers to the admin.

4. Subscriber Panel

The Subscriber Panel provides subscribers with tools to manage their services and communication with trainers and the admin.

- **User Authentication:** Secure login system for subscribers.
- **View Notifications:** Subscribers can view and mark notifications as read.
- **Communication:** Subscribers can send/receive emails/messages to/from the admin or trainers.
- **Payments:** Subscribers can make payments for services.
- **Reporting:** Subscribers can send reports about trainers to the admin.

Conclusion

This web-based training management system is designed to optimize the operations of a training organization by providing comprehensive tools for admin, trainers, and subscribers. The use of modern technologies ensures the application is scalable, secure, and user-friendly, meeting the needs of all stakeholders involved.