TRINITY INSTITUTE OF INNOVATIONS IN PROFESSIONAL STUDIES

GREATER NOIDA

AFFILIATED TO

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

SESSION: 2021-2025

SEMESTER: 8

MAJOR PROJECT SYNOPSIS

TRAINING JOURNAL

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TABLE OF CONTENT

PROJECT DESCRIPTION

Training Journal is a fully functional online platform that enables user to create his/her own training and stay consistent on the fitness journey.

The project is mainly built on the Django a python module for backend, HTML, CSS(Bootstrap) and JavaScript for the frontend, sqlite3 for the database, GitHub to host the code, and pythonanywhere.com to provide server.

Q. What Study Training Journal to provide?

   - A platform where you can access the training you created to stay consistent.

- Technical Details:
    1. System Architecture.
    2. Front-end.
    3. Back-end.
    4. Deployment
    5. Future Enhancements.

In summary , Training Journal is a versatile online platform that is designed to work as a digital book of exercise that you can access anywhere.

KEY OBJECTIVES

- Accessibility : Develop a user-friendly online application that ensures access to the personal training program of the user.

- Personalization : Each User can make their own unique routines in order to fit their goals and life styles.

- Data Security: Ensures the highest standards of data security and privacy compliance to protect the personal information of user.

By addressing these objectives, our full-stack edtech platform aims to revolutionize the way you meet fitness goals.

SYSTEM ARCHITECTURE

SYSTEM ARCHITECTURE:

The Training Journal platform consists of three main components: the front end, the back end, and the database. The platform will follow a client-server architecture, with the front end serving as the client and the back end and database serving as the server. In this Section we will cover the backend part of the project.

FRONTEND:

The front end of the platform is built using HTML, Bootstrap, which is a popular CSS library for building user interfaces, and JavaScript in order to make the website dynamic. user interfaces, which are critical for providing an engaging learning experience to the users.

BACKEND:

The back end of the platform will be built using Django, which are popular Python framework for building scalable and robust server-side applications. The back end allows the front end to make or delete accounts and routines.

DATABASE:

The database we will be using is Sqlite, which is a SQL database that provides a flexible and scalable data storage solution. Sqlite is light weight and fast which makes it a good pick for this project.

DEPLOYMENT:

The website is deployed or made online using the pythonanywhere.com website which provides servers for Django projects.

FUTURE ENHANCEMENTS:

In future we wish to make the website better by making some default routines available for new users, and keep track of their weight and other factors to better track fitness.

KEY CHALLENGES

● User Management: The project must implement a comprehensive user management system that allows the creation of users and login.

● Security: Ensuring the security of user data and the system as a whole is paramount. This project must incorporate feature such as password verification.

● Access Control: Designing and implementing an access control system is a complex task. Users should not be able to access others account everyone should be logged in only with their credentials.

● Database Management: Efficiently managing user data and permissions in a database is crucial for the project's success.

REQUIREMENTS

- FRONTEND:
    - HTML : For structuring the webpage.
    - CSS : For designing the webpage.
    - BOOTSTRAP : A CSS Framework for designing.
    - JAVASCRIPT : For Dynamic and Interactive UI.

- BACKEND:
    - DJANGO : Django is used as the primary framework for the back end.

- DATABASE:
    - Sqlite : SQLite is a lightweight, self-contained, serverless relational database management system. It operates as a library integrated directly into applications, eliminating the need for a separate database server

CONCLUSION

In summary, this document provides a comprehensive overview of the Study Notion ed-tech platform, detailing its architecture, features, and functionalities. It emphasizes the utilization of MERN stack technologies and REST API design, coupled with a deployment strategy employing free hosting services, Vercel for both front-end and back-end, and MongoDB Atlas for database management.
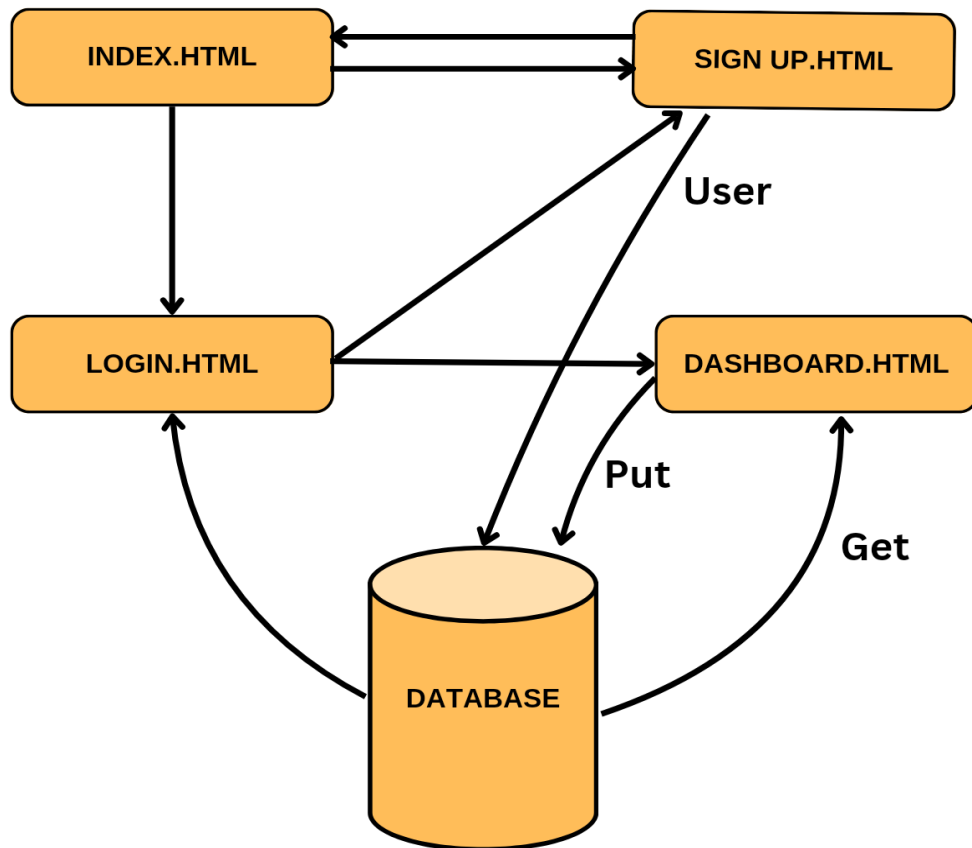
As the project progresses, significant milestones will be reached in terms of functionality implementation and interface design, aiming to deliver a seamless user experience. Nonetheless, it's important to acknowledge that challenges may arise during development, including the integration of diverse technologies and the resolution of debugging issues.

By maintaining a proactive approach and leveraging collective expertise, these challenges can be effectively navigated, ensuring the successful realization of the Study Notion platform's objectives

FLOW - DIAGRAM

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SQLite3

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Python

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   - Real Python - Offers tutorials, articles, and resources for learning Python.
   - W3Schools Python Tutorial - A beginner-friendly tutorial for Python programming.

Django

1. **Tutorials:**
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Git

1. **Tutorials:**
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   - GitHub Learning Lab - Interactive courses and tutorials for learning Git and GitHub.

JavaScript.

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   - W3Schools JavaScript Tutorial - An easy-to-follow tutorial for JavaScript basics and advanced concepts.