SOFTWARE REQUIREMENT SPECIFICATION (SRS)

Fit-Hub

Version 1.0

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Chapter 1

Introduction

Fit-hub is a comprehensive online resource for individuals looking to improve their physical health and wellness. The website offers a wide range of information and tools, including workout plans, exercise guides, nutritional advice, and tips for achieving and maintaining a healthy lifestyle. The website also features online tools, such as workout tracking to help users achieve their fitness goals. The goal of this project is to provide a comprehensive, user-friendly platform for individuals to learn about and improve their health and fitness

1.1 Document Purpose

The purpose of this document is to outline the goals, features, and requirements for the fitness website project. This document will provide a clear and concise overview of the project, including its objectives, target audience, and key components. It will also detail the specific requirements for the website, including its design, functionality, and content. The document will serve as a guide for the development and implementation of the fitness website, and will ensure that all stakeholders have a clear understanding of the project and its goals.

1.2 Product Scope

Fit-hub is a type of website that is focused on providing information, resources, and tools related to physical fitness, health, and wellness. The purpose of a fitness website is to help people improve their overall health and well-being through regular exercise and healthy lifestyle choices. Some common benefits of using a fitness website include access to a wide range of

workout routines and fitness plans, expert advice from fitness professionals, and the ability to track and monitor progress towards fitness goals. The primary objective of a fitness website is to provide users with the information, support, and motivation they need to achieve their fitness and health goals. Some common goals of a fitness website include helping users to lose weight, build muscle, improve their cardiovascular health, and increase their overall fitness levels.

1.3 Intended Audience and Document Overview

The intended audience for a fitness website is typically individuals who are interested in improving their physical fitness, health, and well-being. This can include people of all ages, fitness levels, and backgrounds who are looking to lose weight, build muscle, improve their overall health, or simply maintain a healthy lifestyle. Fitness websites may also be of interest to individuals who are training for specific sports or events, as well as fitness professionals and coaches who are looking for new workout routines, exercise tips, and other resources to share with their clients. In general, the intended audience for a fitness website is anyone who is looking to take control of their health and fitness and make positive changes in their lives.

1.4 Definitions, Acronyms and Abbreviations

- HTML: Hyper Text Markup Language
- CSS: Cascading Style Sheets
- JS: JavaScript
- Django: Django is a high-level Python web framework that enables rapid development of secure and maintainable websites.
- SQL: Structured Query Language
- Python: High level language
- DFD: Data Flow Diagram
- GUI: Graphical User Interface
- Latex: A document formatting tool to prepare documents

1.5 Document Conventions

The SRS has been prepared using the Latex software which is a document preparation system. When writing, the writer uses plain text as opposed to the formatted text found in WYSIWYG word processors.

1.6 References and Acknowledgments

- IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.
- Bruade: The principal source of textbook material is "Software Engineering: An Object-Oriented Perspective" by Eric J. Bruade (Wiley 2001)

Chapter 2

Overall Description

2.1 Product Perspective

The data structure simulator is a new, self-contained system which focus on providing users with a personalized and convenient way to track and improve their physical fitness. The website could offer features such as customizable workout plans, progress tracking, and access to a community of like-minded individuals for support and motivation. Additionally, the website could provide educational resources such as workout tutorials and nutrition guides to help users make informed decisions about their health and fitness. The overall goal of the website would be to empower users to take control of their fitness journey and achieve their goals

2.2 Product Functionality

- User account management and authentication
- Personalized workout plans
- Progress tracking
- Community support and motivation
- Mobile compatibility for accessing the website on the go
- fitness related item store
- gym locator
- user cart

2.3 Users and Characteristics

2.3.1 Admin

The Administrator is the person or people who will have any and all the privileges of all other user types. They will be able to impersonate other users within the system. They will also have the authority to view and edit the WebApp. Also, He would be responsible for updating the system on a timely basis, manage any overloading on the system and report any bugs/errors to the simulation programmer.

2.3.2 User

user can login and sign-up, a valid user can use all the functionalities of the website such as,accessing store,Personalized workout plans e.t.c

2.4 Operating Environment

Fit-hub can operate on a variety of hardware platforms, including desktop computers, laptops, and mobile devices such as smartphones and tablets. The operating system on which the website will run can also vary, depending on the user's device. For example, a user accessing the website on a desktop computer may be using a Windows or MacOS operating system, while a user accessing the website on a mobile device may be using iOS or Android.

In addition to the hardware and operating system, a fitness website will likely make use of various software tools and applications to function properly. This may include web browsers, such as Google Chrome or Mozilla Firefox, as well as specialized fitness or health tracking software. The website may also incorporate other features, such as social media integration and online payment processing, which will require additional software to support those functions.

2.5 Design and Implementation Constraints

- a browser is required to access the website.
- requires the availability of Internet access at all time. Without connection to the Internet, the system would be futile.
- Newest versions of the browser should be available which supports JavaScript

- Hardware limitation of this software product can be unavailability of laptop or pc.
- A mouse and keyboard are necessary to interact with the application while using on desktop

2.6 User Documentation

To use Fit-hub, complex working knowledge of computers is not required, since it is targeted towards casual users who are interested in fitness related activities to maintain their health . The GUI is very user-friendly and can be understood easily by a novice learner. However, a basic understanding of functionalities is required by the user

Chapter 3

Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

- Dashboards: These are often the main landing page for a user when they log into the site.
- Workout plans and routines: Many fitness websites offer pre-designed workout plans and routines that users can follow to achieve their fitness goals. These can be accessed through the user interface
- gym and fitness store: here users can access store and buy various gym and fitness related products
- cart: this will show the products added to cart by user
- daily blogs: blogs regarding fitness and healthy routine would be shared daily

3.1.2 Hardware Interfaces

this website does not require any special hardware other than a PC or laptop or any such device to access the site

3.1.3 Software Interfaces

- SQLite database to store and manage user information, such as accounts, workout plans, and tracking data.

- A front-end development framework to design and build the website's user interface, such as HTML, CSS, and JavaScript.
- Back end development framework Django to enable rapid development of secure and maintainable websites.

3.1.4 Communications Interfaces

Fit-hub is an online website so the user needs a web browser and thus internet access is required for communication over the network and communication between the servers

3.2 Functional Requirements

1. **Account creation and management:** Users must be able to create an account on the website and log in using a username and password. They must also be able to update their account information, such as their email address and password.
2. **Workout plans and routines:** The website must offer a selection of pre-designed workout plans and routines that users can follow to achieve their fitness goals. These plans must include information on the exercises to be performed, the number of sets and reps, and the rest periods between sets.
3. **gym locator:**the website should have a functionality to list down located near users location
4. **Blog features:** The website must include blog features which will provide health fitness and gym related articles and blogs to facilitate users
5. **fitness store:** The website must include a store facility to allow user to buy gym and fitness related products
6. **cart:**user should be able to review the items in cart and proceed to checkout

3.3 Behaviour Requirements

3.3.1 Use Case View

- login screen use-case view: the user needs to login else have to sign up to access the website
- home screen use-case view: after login the user would land on the home page which features some information about the website and its usage
- store use-case view: would feature a store viewing all products that a user can buy.
- cart use-case view: after adding products user can go to cart view where he can review products and checkout
- gym locator use-case view: on this page you can search for nearby gyms based on your current location

Chapter 4

Other Non-Functional Requirements

4.1 Performance Requirements

- The website must load quickly and efficiently on a range of devices, including desktop computers, laptops, and mobile devices.
- The website must be easy to navigate and use, with a clear and intuitive interface.
- The website must provide accurate and up-to-date information on fitness-related topics, such as exercise routines, nutrition advice, and health tips.
- The website must allow users to create and manage their own fitness plans, including the ability to track their progress and set goals.
- The website must provide a secure and confidential environment for users to store and access their personal information and fitness data.

4.2 Safety and Security Requirements

- The website must protect user data from unauthorized access, disclosure, destruction, or modification.
- The website must ensure the privacy and confidentiality of user data, and must not disclose personal information without the user's consent.

- The website must use secure protocols, such as HTTPS, to protect user data and prevent malicious attacks, such as man-in-the-middle attacks and data breaches.
- The website must regularly update and maintain its security measures to protect against new and emerging threats.
- The website must provide clear and concise information on its security measures and policies, so that users can make informed decisions about their data privacy.

4.3 Software Quality Attributes

4.3.1 reliability

The website must have high availability and reliability, so that users can access the website and its features at any time.

4.3.2 response time

The website must have low latency and response time, so that users can navigate the website and access information quickly and efficiently.

4.3.3 usability

The website must have good usability, so that users can easily and intuitively interact with the website and its features.

4.3.4 maintainability

The website must have good maintainability, so that it can be easily updated and modified to meet changing user needs and business requirements.

4.3.5 security

The website must have good security, so that user data is protected from unauthorized access and malicious attacks.