FitX Requirements Specification
Version 1.2

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1.   Executive Summary

1.1   Project Overview

FitX (FITness and technology eXploration) is a software product created to help people who have little to no information about fitness. This program lets users easily interact with a user-friendly interface in order to help them achieve certain goals. FitX makes every part of a fitness routine easier for everyone, as it allows users to track their progress and if the program they are following is yielding the desired results.

1.2   Purpose and Scope of this Specification

In scope

The following specifications make up the foundations of this product and how it intends to be used:

- This project's purpose is to make fitness more available to the general public
- Intended customers are of all ages (people who can use online apps)
- It will be user-friendly and easy to use
- Users can upload their personal information to help track their progress
- Users can also make online payments for their services,
- Users' personal information is guaranteed to be secure and not misused

Out of scope

The following specifications are not constraints to potential users or existing ones, but rather clarifications on what this product intends to make available to them:

- This product does not aim to oblige users to follow programs outside of their capabilities, but instead encourages them to choose the best option available
- If users are not content with the product, they can stop using it at any time
- Users' personal information is not object to any public availability or other unintended usage

2.   Product/Service Description

2.1   Product Context

Our product will be independent from others. Since its starting scope is to be a fitness application with diets and training plans, then there would be no need for any other products as of this first draft. Since it will independent then it shall not have any interaction with external interfaces. The only thing that would come to mind is during the sign up process to send a verification email for the account (idea).

2.2   User Characteristics

The product will have multiple users, in order to make its maintenance easier to manage and increase the availability to potential customers.

Admin: Overviews every aspect of the application. Is responsible for the maintenance of each section and can modify the application if needed. Has the ability to delete/modify any normal level user (Trainer, Customer, and Nutritionist) and also the data that is available.

Nutritionist: Has the rights to create and modify existing diet plans that will be linked to his profile. Will be able to look at users that are following his/her plans (view their progress and make any necessary changes) and notify/communicate with them.

Trainer: Has the rights to create and modify existing training plans that will be linked to his profile. Also will have the right to notify/communicate with the users (view their plans make any necessary changes).

Users: Can follow the given diet/training plans, view his progress over the time period of each plan as well as to communicate with the trainer/nutritionist if he wishes to. Users should also be able to leave reviews.
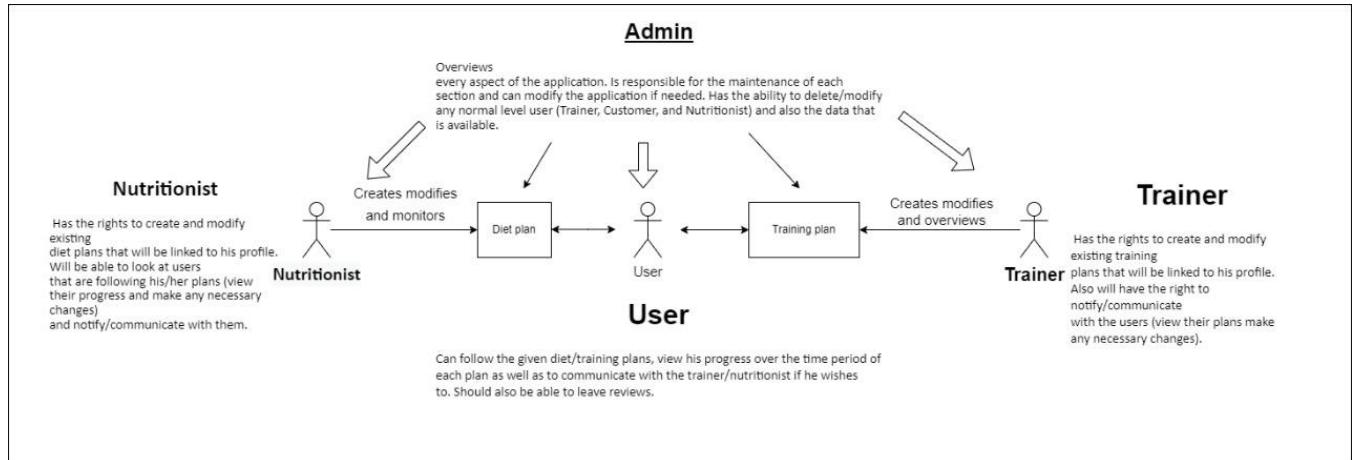
2.3 Assumptions

- We might have issues with SEO since we do not have previous experiences with it
- The application needs to be as much user friendly as possible
- Availability of the products in the online shop

2.4 Constraints

User side:

- The client needs to sign in/sign up
- Clients need to have network connection to access the application
- Financial capabilities to afford the services

System side constraint:

- A server is required to host the webpage (disk space, memory, CPU, etc.)
- A domain is needed to easily connect with the page

2.5 Dependencies

There are some dependencies that might affect the usage of this product:

- Daily reminders in the form of notifications, so users can continue following their programs
- Accessing users' personal data to calculate their progress and the program best suited for them
- Delivering products purchased online by the users, done by a third party

3. Requirements

3.1 Functional Requirements

FitX – The fitness application product

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FITX_01	The product will determine the functionalities provided to the user after the login phase is completed (or register phase if no previous account exists). Users will have differing abilities according to their roles.		1		
FITX_02	The product supports the idea of multiple users and multiple roles. Each user has his personal information and login data. And according to his role, each user will have other specifications.		1		
FITX_03	The product will determine the functionalities provided to users in a predefined manner. These functionalities will not be subject to any change unless circumstances require doing so.		2		
FITX_04	Predefined user roles Admin: Overviews every aspect of the application. Nutritionist: Create and modify existing diet plans Trainer: Create and modify existing training plans Users: Can follow the given diet/training plans		2		
FITX_05	The app will provide the user the ability to update their personal information at any time.		1		
FITX_06	Different users will be able to create, modify or delete specific parts of the product. The admin will overview any actions taken by other users.		1		

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FITX_07	The product will support the idea of user profiles. Each user profile contains customizable options related to their personal data. User profiles are unique and can belong only to one user at a time.		2		
FITX_08	Users will be able to update their profile by using the edit button. They will also be able to change their profile picture and other non-sensitive data.		3		
FITX_09	User will login to the system by entering their username, password and choosing the role. The user is not allowed to login in if the password is incorrect or if the user has no previous account.		1		
FITX_10	The user will have the option of registering (create an account) besides the login option. If registration fails, an error message will be displayed in the screen according to the cause of the error. For example: "Username or password incorrect", "Account already exists" etc. If the registration is successful the user will be redirected to the main menu.		1		
FITX_11	Authorized users will be able to track his progress at any point in time, allowing them to compare results and effectively plan future programs.		1		
FITX_12	The app will provide authorized users permission to search for programs best suited for them, according to their personal data and to other information entered into the search filters.		2		
FITX_13	Users will also be provided with the ability to start a new training program and specify certain attributes of that program such as duration, training days and rest days.		2		

Req#	Requirement	Comments	Priority	Date Rvwd	SME Reviewed / Approved
FITX_14	Training programs chosen by the users will be customizable, meaning that their specifications can be changed In a future time as well. This will allow users to improve their workouts in a consistent manner.		3		
FITX_15	Users will also be able to choose diet programs, according to their personal data and based on suggestion the system will offer them.		2		
FITX_16	The product will also offer authorized users to order custom diet programs from a professional, specifying their preferences or necessities.		3		
FITX_17	The application will provide users (customers) with the ability to do online shopping. This will make different training products more available to the mass.		2		
FITX_18	A variety of products will be offered at the online shopping site, according to the needs of customers and what they look to purchase the most.		3		
FITX_19	The application will gather statistics for every element that completes the fitness experience: the training section, the diet section and online shopping section.		3		
FITX_20	Data gathered by the system will be used to make future improvements to the product and fulfill the needs of the customers. This guarantees an ever-improving experience of using this product.		3		

3.2   Non-Functional Requirements

3.2.1   Product Requirements

3.2.1.1 **User Interface Requirements**

Sign in/Sign up

The first element that appears when the user accesses the software is the sign in/sign up page:

- If he already has an account, he must enter the username and the password in order to log in as user.
    - In case the password or the username is not correct, the error message will show up saying that they should try again. The user can also reset the password anytime.
    - After he gets his email and password right, he may proceed and log in.
- In case he does not have an account, he must fulfill the credentials to register.
    - If the login is successful, the system will direct the users to the main page

Home page

User Interface: In the homepage you get to navigate between: 1) the diet and training program service, 2) the blog and 3) the online shop. Every element directs to the related page. The payment can be done after choosing the program package, virtually or by cash. The client is updated all the time with the information sent by his trainer. For any concern he may contact him/her.

Trainer's interface: After logging in and landing the page, the trainer's dashboard gives him/her the facility to view and modify the programs. He/she can look over the user's advance and easily contact them. The trainer can create, change or even delete the plans sent. He/she keeps track of the client's progress.

Admin's interface: When the admin enters the page, he has access to look over the trainers and the clients. Its dashboard makes it easy for him/her to manage the plans, trainers or even the reviews. He/she can view the active users/trainers, programs, posts, products required, etc. In other words, the admin has all the control over the page.

3.2.1.2 **Usability**

- This user-friendly software will be easily-accessible by different devices and web browsers since the system is web-based.
- It will be well organized to be understood.
- The user can understand and learn the system in a fast time.
- The interface will be organized in that way that each action will have its own button with a description, so the client will not get confused.

3.2.1.3 **Efficiency**

3.2.1.3.1   Performance Requirements

- The efficiency of the system must be at the level where it ensures the interactivity of users at all time.
- The system should provide users with relevant information constantly so that it is reliable.
- Our fitness app must be efficient meaning that the users can easily interact with a user-friendly interface in order to help them achieve certain goals and track their progress.
- The data in reference to the users' personal information and online payments should be automatically updated and in accordance with the actual state of the app.

3.2.1.3.2   Space Requirements

When it comes to disk space, we must examine the number of pages the software will have as well as the amount of photos, interactive images, CSS files, and email accounts it will contain. A web page's disk space requirements increase as it contains more pages and data, but the number of visitors has an impact as well. The software's disk space should be based on this information, and given today's low pricing for web hosting resources, it can be acquired in gigabytes. Our program will most likely use less than 10 GB per month on average, excluding financial statements, which consume more space than the other components.

Bandwidth, on the other hand, refers to the amount of data that a system can send from a website to end users. Because the users' activity will be centered on the interaction between the app users and the system in our situation, the web page's bandwidth must be at least 20 Gb in order for the web page to handle all necessary communication and documentation.

3.2.1.4 **Dependability**

There are various things to avoid and search for to make our website more reliable and trustworthy:
- Staying away from commercials is key since many advertisements popping up at once makes the app uninteresting and not trusted.
- It is also crucial to always have up-to-date information available.
- Check the site's general appearance; it should be professional, with no misspellings or sloppy writing.
- When looking for established institutions to collaborate with, these institutions must be reputable and have a long track record of success.

3.2.1.5 **Security**

The data is classified essential, and we guarantee users that we will be able to protect it and provide this program with a high level of security. We shall take the following precautions to safeguard the system:
- MD5 (Message-Digest Algorithm) is a widely used hash algorithm that will be used to encrypt the password.
- The data will be verified by the fitness centre system.
- In order to avoid SQL injection, SQL filtering will be employed.
- Each user will only view information that is relevant to his or her page.
- The username and password will be used for authentication, and each user will be able to log in using their own credentials.
- Employees will have the option of changing their default password to anything they prefer.
- Only personnel who have been pre-assigned will be allowed to access the system.

- Depending on the user type, each user is only allowed to access the information that pertains to them.
- If the credentials are invalid, the user will receive an error message.

3.2.2 Organizational Requirements

3.2.2.1 Environmental Requirements

We anticipate that the application will be accessible at all times.
- The program will be accessible via modern browsers (Chrome, Firefox, Internet Explorer 10+, and Microsoft Edge) on any computer or laptop connected to the internet.
- Maintenance will be scheduled and will not impair the system's functionality; unscheduled maintenance will not last more than 30 minutes and will not disrupt or slow down the work process.

3.2.2.2 Operational Requirements

The key operations that will be provided to the nutritionist and the trainer are:
- Create and modify existing diet plans that will be linked to his/her profile
- Look at users that are following his/her plans
- Notify/communicate with users

The key operations that will be provided to the users are:
- Follow the given diet/training plans
- View his/her progress over the time period of each plan
- Communicate with the trainer/nutritionist if he/she wishes to
- Leave reviews

3.2.2.3 Development Requirements

1) Client-Side Programming (Front-End)
Everything that is displayed or occurs on the end user's device is referred to as client-side. This comprises what the user sees, such as text, graphics, and the rest of the user interface, as well as any activities performed by a program within the user's browser. The following technologies will be used on the client side:
- HTML
- CSS
- Javascript
- jQuery
- Bootstrap

2) Server- Side Programming (Back-End)
- MySQL (Database)
- PHP (BackEnd)

3.2.3 External Requirements

3.2.3.1 Regulatory Requirements

Both functional and nonfunctional requirements are influenced by regulations. To avoid major brand harm, costly penalties, and lost reputation as a result of noncompliance, every software engineer must ensure that the software they purchase complies with all relevant rules and regulations. Regulatory compliance is a discipline that ensures that software adheres to government-enforced rules based on industry standards.

Personal data refers to information that can be used to identify a specific user. Many new laws, particularly those relating to privacy and personal data, require software apps to comply and report on their compliance as well as any potential breaches. Because we need certain data for login purposes we should assure that the users' personal data or information entered/ generated is safe and secure with our system.

The General Data Protection Regulation (GDPR), aimed to increase data protection for persons throughout the European Union, is one of the most important developments in this area, as one of the key requirements and duties that the EU has for Albania is to respect its regulations and legislation. Individual data (such as "a name, a home address, a photo, an email address, bank details, posts on social networking websites, medical information, or a computer's IP address") must be kept on EU servers and not moved outside of it, according to GDPR. It also dictates that organizations notify individuals in the event of a data breach, as well as having a data protection officer (DPO). The Online System that we provide requires personal data and it is our duty to maintain this data on servers and not use them out of this server for any other purpose.

3.2.3.2 Ethical Requirements

1. Any real or possible threat to users, the general public, or the environment that they feel is linked to the software will be reported to the appropriate people or authorities.
2. All associated statements and papers, as well as procedures and instruments, will be fair.
3. Confidentiality of passwords, files, and information that is confidential to the users or to others is ensured in accordance with policies and procedures.
4. The papers and software as a whole will be thoroughly tested, debugged, and reviewed.

3.2.3.3 Legislative Requirements

3.2.3.3.1   Accounting Requirements

Invoices from customers and sales orders
1. Update a customer's information fields.
2. Based on a set of parameters, provide different pricing levels to different consumer groups.
3. Keep track of credit card payments and store credit card information.
4. During the invoice input process, enter payments.
5. Printing invoices on paper is an option.
6. From the sales order screen, create purchase orders.
7. Make some products taxable and others non-taxable on an invoice.

Customer Payments
1. Take credit card payments and keep track of them.

2. Use integrated credit card processing to approve and process credit cards.
3. Make change

Inventory
1. A description of how the price will be calculated for each item.
2. Give inventory items options names to make name variants easier to find.
3. For default, stocking, purchasing, and selling, use several units of measure.
4. Take a picture of each item in the inventory and save it in the system.
5. Maintain a list of suppliers and orders for each item to payments, remove them, and record overpayments on the account.

Purchasing Products
1. Oversee the delivery of procurement orders.
2. Keep track of the number of vendor partners by detail line.
3. Get receipts for purchase orders.

3.2.3.3.2　　　Security Requirements

The system should support new versions of the related browsers.
The administrative and server technologies should be standard and supported by most platforms. To develop our Fitness services system, we will use PHP language as our main language for the back-end and for the front-end we will use mostly HTML, CSS, JavaScript etc. We've chosen to create a web-based application system. Our program will be accessible from any browser with an internet connection, including computers, laptops, and mobile devices. It will also work the same regardless of the operating system because PHP is available on all platforms. We intend to create a mobile application based on our web application format in the future.

3.3　　Requirements for the Domain

Admins should be able to handle personnel, finance reports, products, suppliers, inventories, and statistics using our Online Fitness Services System.
Employees, including the manager, can have accounts created, edited, and deleted by the admin. He can also change, add, or remove items, clients, suppliers, and inventory from the list (the updates will be stored in the database). The Fitness App's economist and manager, as well as the admin, will have access to finance reports and statistics, as well as a list of employees, suppliers, and clients, with some capabilities available only to the manager/administrator. The Fitness App's economist and manager, as well as the admin, will have access to finance reports and statistics, as well as a list of employees, suppliers, and clients, with some capabilities available only to the manager/administrator. This system will act as a manager for the app, recording everything so that the owner and staff can track their progress and better manage their business and shifts (for the employees).