

FitNoQuit

1814007, 1814010, 1814011, 1814020

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1 INTRODUCTION

1.1 Product Overview

FitNoQuit is a health and fitness web app made for anyone who wants to enter the world of fitness. The main purpose of this product is to help and properly guide beginners. This website recommends a fully customized and personalized diet and workout plans for different individuals (based upon their inputs). This helps them to not only have an effective routine, but also helps them to enjoy thier routines as it is made according to their likings.

1.2 Project Deliverables

Deliverable	Delivery Date
Project details	3rd Sept 2021
Project Presentation	23rd Sept 2021
Scope, Technology and Tools	24th Sept 2021
SRS and SPMP	1st Oct 2021
SDD	8th Oct 2021
STD	15th Oct 2021
Presentation and Demonstration	22nd Oct 2021
Synopsis	5th Nov 2021
Data Collection	20th Jan 2022
Sign up and Login	31st Jan 2022
Handling User Inputs	15th Feb 2022
Diet Recommendation	3rd March 2022
Blog Section	3rd March 2022
Workout Recommendation	31st March 2022
UI/UX	15th April 2022
Testing and Research Paper	29th April 2022

2 PROJECT ORGANIZATION

2.1 Software Process Models

This section describes the project process model and its organizational structure. The project uses an Agile development model that allows the customer to interact with and work with software that works at the end of each iteration and provide feedback on it. This approach allows teams to easily adapt and make adjustments if needed. Agile method, software is built and more extruded in duplication. The development process is organized into a number of activities.

We have divided each module into several Iterations. All changes will be simultaneous (between two to eight weeks). At the end of each iteration, an active product will be sent. Any remaining features that cannot be brought to the first iteration will be taken to the next iteration or to the next iteration, depending on the progress. At the end of the first duplication, the team will submit active software with features that were completed during that

period. The Agile approach places great value on team interaction, customer interaction, responsiveness to changes and the delivery of active software.

We can satisfy the customers because after all the Sprint operating features are delivered to them. Customers can be seen with performance that meets expectations. If customers have specific reports or changes in the item they may be included in the current product release. In an Agile way every-day communication is needed between entrepreneurs and developers. In this way good product care is considered. Changes to needs were welcomed even in recent stages of development.

2.2 Roles and Responsibilities

Roles	Description	Person
Project Manager	Overall planning, risk analysis execution planning, monitoring and closure planning	Bhavik Bhatt
Front-End Developer	To develop and implement a design of the required system and ensuring that all requirements are satisfied.	Muskaan Nandu,
Technical Lead	Leading the development team	Bharat Choithani
Development Team	Implementing the functionalities required in the application through coding.	Bhavik Bhatt Piyush Chavda Bharat Choithani Muskaan Nandu
Database Management	To design and maintain the database and to add, modify, delete, retrieve data from the database efficiently.	Bhavik Bhatt Piyush Chavda Bharat Choithani Muskaan Nandu
UI/UX Designer	To prepare a prototype of the website and UI	Piyush Chavda
Testing team	To check whether the functionalities work as expected and to find out bugs in the system.	Bhavik Bhatt Piyush Chavda Bharat Choithani Muskaan Nandu

2.3 Tools and Techniques

Activity	Tools required	Technique to be used
Documentation /User Manual	Microsoft word, PDF converter, GanttProject, LaTeX	The procedure would be given in steps wherever necessary labeled images and diagrams will be used
UI/UX Designing	Marvel App, Adobe XD	The prototype will be first prepared before coding After the design is confirmed, implementation will be done
Development	VS Code, Sublime text, Atom MySQLdatabase, Github Python, Django, Sckit-learn, Keras	The development teams, would be working on their prototype for development.
Meetings	Microsoft Teams, Google Meet, ZOOM	The agenda of the meeting along with the meeting link would be shared with all the attendees prior to meet
Testing	Mobile, desktop and tablet having different browsers, testing tools	Test cases will be prepared for the testing team to conduct the tests

3 Project Management Plan

3.1 Tasks

3.1.1 Requirement Analysis (Task1)

3.1.1.1 Description : The team is required to elicit and elaborate on the requirements. All essential requirements must be noted down by asking questions and taking surveys from the customer.

3.1.1.2 Deliverables and Milestones : A list of all requirements must be submitted in a brief document along with an elaborated SRS document which clearly explains all the requirements of the software.

3.1.1.3 Resources Needed : Surveys, Research, Feedback meetings with the mentor.

3.1.1.4 Dependencies and Constraints' : The surveys should be appropriate and should not have unnecessary questions that might waste the mentor's time.

3.1.1.5 Risks and Contingencies : If the requirements are not analysed well there is a high chance of an unhappy and unsatisfied mentor. Hence all the requirements must be clearly discussed with the mentor and constant communication should be maintained to ensure mentor satisfaction.

3.1.2 User Module (Task2)

3.1.2.1 Description : This task contains developing the user dashboard. The User should be able to login to the system, enter different inputs like his height, weight, workout time, food preferences etc. and get an appropriate diet and workout plan. The user also gets an option to interact with the blog community that is present in our website, where he can like, comment on and get recommendations on the blogs.

3.1.2.2 Deliverables and Milestones : At the set date of meetings the team should show a demo of the login system, user inputs and previous recommendations respectively. Along with live demo a document with images and description of each vital function must be submitted.

3.1.2.3 Resources Needed : Documents, coding tools, packages.

3.1.2.4 Dependencies and Constraints' : The sub-functionality of each module must be completed on the specified deadline as set in the deliverable dates and gantt chart.

3.1.2.5 Risks and Contingencies : The risk of user being unsatisfied with the work remains, hence back up plans and ideas must be provided to the user when such situations arise.

3.1.3 Machine Learning Module (Task3)

3.1.3.1 Description : This task contains developing the ML model. Proper and appropriate ML models must be trained on rich and diverse datasets. These models must then be fine tuned according to specific needs upto the point of lowest error score.

3.1.3.2 Deliverables and Milestones : At the set date of meetings the team should show a demo of the ML model working according to specific inputs entered by the team and the results must be accepted by the certified dietitian. Along with live demo a document with images and description of each vital function must be submitted.

3.1.3.3 Resources Needed : Documents, coding tools, packages, schit-learn, keras, pandas, numpy, dataset.

3.1.3.4 Dependencies and Constraints' : The sub-functionality of each module must be completed on the specified deadline as set in the deliverable dates and gantt chart. The model must have an accuracy of at least 90

3.1.3.5 Risks and Contingencies The risk of not meeting deadlines can be very daunting. Thus, work must begin on time. If a particular deadline might not be met then the customer must be informed immediately. The risk of the ML model not predicting accurately and not satisfying the user needs can be very daunting.

3.1.4 Testing Software (Task4)

3.1.4.1 Description : The software must be tested well before deployed for public use.

3.1.4.2 Deliverables and Milestones : A document of all errors found while testing must be prepared and submitted. Each error must be logged and must be taken care of.

3.1.4.3 Resources Needed : Documents, images, videos, survey forms.

3.1.4.4 Dependencies and Constraints' : The testing phase might take a little longer as all errors must be resolved and thus sufficient time must be assigned for it.

3.1.4.5 Risks and Contingencies If the software is not tested well there stands a risk of deploying a faulty software, Thus before making it available for public use the software must be well tested.

3.2 Assignments

Mr. Bhavik Bhatt

The roles assigned to Bhavik are: Project Manager, Technical Lead, Database Management and Development Team. Thus, he must take care of the overall planning, risk analysis, developing and ensuring all the customer's requirements have been full-filled.

Mr. Piyush Chavda

The roles assigned to Piyush are: UI/UX Designer, Development Team, Database Management and Testing Team. Thus, he must take care of the overall designing process, contribute to the development and testing team.

Mr. Bharat Choithani

The roles assigned to Bharat are: Technical lead, ML Engineer, Development Team, Database Management and Testing Team. Thus, he must take care of the all the technical aspects including ML and contribute to the development and testing team.

Ms. Muskaan Nandu

The roles assigned to Muskaan are: Front End Engineer, database Management, Developing and Testing Team. Thus, she must take care of the design and maintenance of database, prepare a prototype for the website and test the app to check whether the functionalities are as expected without any bugs in the system.

3.3 Timetable

Represented using a Gantt Chart as shown below.

