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COSC 412

Software Project Management Plan: “Fit4Any1”

Version Release

* 1. Initial Document Release for Feedback.

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1. **Introduction**
   1. **Project Overview**

Fit4Any1 is a website that serves to provide people of all skill levels affordable information about fitness and nutrition, along with a few premade workouts to follow along with. Users are also given the opportunity to sign up for a small, paid subscription fee of $5.99 per month for access to a workout plan guide, as well as a more personalized recommendation based on the user’s individual goals. This membership will give the user access to a workout log, recommended caloric and protein intake, and a recommended workout split based on how many days per week they plan to exercise, their goal bodyweight, and their overall fitness goals.

* 1. Project Deliverables\*
* Requirements Plan – 10/2
* Tools Plan – 10/2
* Initial Prototype and UI Design plan – 10/9
* Development Plan – 10/16
* Second Prototype – 10/30
* Testing Plan – 11/6
* Operational Prototype with Detailed Design – 11/20
* Code – 11/20
* Testing – 11/27
* Finalized Website ready for Release – 12/4
  1. Evolution of the SPMP

At this point, I anticipate having a paid subscription fee as well as a user login feature on my website for those who choose a paid membership. For paying members, this website should provide access to the following:

* Secure payments
* Secure user login
* A log for users to record their exercises and weights
* A log for users to record their calories and macros for each meal
  + This should output the total sum for each macro and total caloric intake per day
* An initial survey to identify the user’s goals
  + Goal bodyweight
  + Number of active days per week
  + Exercise goal
* The site should output a target caloric intake, protein intake, and workout split for the user
* The site should provide a “workout guide” with exercises for the user to follow. Generally, it should include the following:
  + Choose 2 compound lifts
  + Choose 3 or more accessory lifts
  + Finish with cardio and/or core

Changes to this may involve providing users with recommendation for other macros, including carbohydrate and fat intake. It may also involve allowing the user to change their responses to the initial survey, based on changes in their overall goals. The estimated cost of a subscription fee is currently $5.99 per month but may change in the future based on the cost of the project, and money generated from advertisers.

* 1. Reference Materials
* Week 4 slides
* “Automated Web Application Testing Services.” *XBOSoft.com*, 22 July 2020, xbosoft.com/website-testing/web-application-testing-services/?gclid=EAIaIQobChMItO7t-6-K7AIViYzICh1ARgzOEAAYASACEgIyh\_D\_BwE.
  1. Definitions and Acronyms
* Macros: this is short for “Macronutrient”. The three primary macros are carbohydrates, fats, and proteins.
* SRS: Software requirements specification
* SDD: Software design development description
* WBS: Work breakdown structure

1. **Project Organization**
   1. Process Model

To organize this process into phases which include updating requirements, analyzing the risks, developing a prototype, and testing, the process model I found most appropriate for this project is the spiral model as shown below. This model moves from the inside-out, and cycles through defining requirements, analyzing risks, then developing a prototype. Once this prototype is developed, it is then tested and repeats the cycle until the prototype is operational and is ready for release. Splitting the project into repeated phases like this allows me to complete the project one small task at a time, to have it finalized by the given deadline.

Diagram

Description automatically generated

* 1. Organizational Interfaces

This website will primarily be managed and developed by me however I plan to interact with outside advertisers as a means of generating profit through the website. This will also involve meeting with clients and/or potential users to get feedback and a better understanding of what more could be incorporated or improved on this website.

1. **Managerial Process**
   1. Management Objectives and Priorities

* Documentation of all tools, requirements, planning, costs, risks, changes and scheduling of the project.
* Following the established schedule to release all aspects of the project in a timely manner.
* Ensure that the project meets the requirements.
* Meet with clients to continue to enhance understanding of what is needed in the project, and what should be changed.
* Conducting thorough website testing regularly to ensure the software is functioning appropriately.
  1. Assumptions, Dependencies and Constraints

Constraints:

* The project must be completed and functioning by the given deadline (12/7)

Contingency:

* Set a clear schedule (see 1.2) to ensure the project is completed, tested thoroughly, and functioning properly by the given deadline.

Constraint:

* There is no expected funding toward the implementation of this project

Contingency:

* The development of this project will require utilizing open-source software.

Constraint:

* All nutrition information and suggestions provided on the site must be safe, researched, and accurate before administering to users.

Contingency:

* A disclaimer should be included to avoid legal implications of any harmful advice given to users. All sources of information should be cited on an additional tab on the website.
  1. Risk Management (Example on next slide)

Risk: User payment information must be provided on the website.

Contingency: Tools for secure payment processing should be utilized to protect user information.

Risk: Users must have login information to access their membership including a username and password.

Contingency: Tools for securely storing user login information should be used to avoid hacking.

Risk: The user could input an extremely low or high goal bodyweight. This would output an extremely low or high daily caloric recommendation for the user, which could be harmful if followed.

Contingency: A disclaimer is necessary to avoid legal implications, and users should be advised to set realistic, healthy, and attainable goals.

* 1. Monitoring and Controlling Mechanisms

Because I am working on this project individually, I will be utilizing a handwritten calendar alongside of Google Calendar to ensure that all steps of the project are completed in a timely manner. This allows me to not only track when each step of the project should be completed, but it also allows me to set reminders and alerts to begin working on each part prior to the deadline. This is the most efficient way for me, alone to meet a given deadline (See 1.2 for estimated schedule).

1. **Technical Process**
   1. Methods, Tools and Techniques

* This website will be written in JavaScript language using React.
* Testing will be conducted using XBOSoft.
* UI will be designed using Figma.
* Login information and user authentication will be supported using Duo.
* SaaS Optics will be utilized to manage subscriptions and payments on the website.
* I will be using MongoDB as my database for this website.
* Hosting will be done using Bluehost.
  1. Software Documentation

An SRS and an SDD will be used for documentation of the project. The SRS, or Software Requirements Specification will define all of the necessary requirements of the website. These requirements pertain to the website’s functions and constraints. The SDD, or Software Design Description, will describe all of the major components of the website’s design. This includes the site’s databases and UI. These will be consistently updated with each cycle of our spiral process model (See 2.1).

* 1. Project Support Functions\*

Software Testing Plan

Testing for this website will be done by following the sample plan for thorough testing provided by XBOSoft (See 1.4). This plan involves the following procedures:

* Validating all menu functionality such as that in the site’s navigation.
* Validating all links on the website.
* Validating all terms and conditions and user permissions.
* Validating the data on all parts of the website.
* Ensuring error messages appear when appropriate.
* Validating login security.
* Ensuring that valid user logins are accepted.
* Testing website’s performance
* Ensuring that authentic transactions are accepted.
* Validating payment security.

1. **Work Breakdown Structure (WBS)**

Diagram

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