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COSC 412

Software Project Management Plan: “Fit4Any1”

Version Release

* 1. Updated SPMP with Changes to Process Model and Tentative Schedule

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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

Communication:

* Requirements Plan – 10/2

Planning:

* SPMP – 10/2
* Tools Plan – 10/2

Model:

* Initial Prototype and UI Design –
  + Home page – 10/19
  + Nutrition page – 10/19
  + Home workout page – 10/21
  + Gym workout page – 10/21
  + Membership page – 10/23
* Back End – 10/21
* Front End – 10/26

Construction:

* Testing Plan – 10/28
* Code – 11/9
* Operational Prototype with Detailed Design – 11/9
* Testing – 11/13

Deployment:

* Finalized Website ready for Release – 11/16
  1. Evolution of the SPMP

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.

Additionally, the tools used in the development of this website may change. I must figure out which APIs will work best for the functionality of this website, which may change as I conduct further research. Additional tools may also be added or removed as I continue to learn more about which tools are useful to this project.

Changes that have occurred already include changes in the process model used, as well as changes to the schedule and new added tools. These new tools include APIs that may be useful, as well as tools for testing.

* 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 best organize this process, I have chosen to follow the waterfall model. This allows me to divide the project up into different phases which occur in chronological order. These phases include communication, planning, modelling, construction and finally deployment. As you can see in the Gantt chart below, the deadlines for each aspect of the process cascade in a waterfall-like pattern.

A picture containing table

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 using Wordpress.
* Testing will be conducted using XBOSoft.
* UI will be designed using Figma.
* Login information and user authentication will be supported using Duo.
* SaaS Optics and HTTPS 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.
* MyFitnessPal or FatSecret API will be used for nutrition information.
* FitBit, Wger or UnderArmour API will be used for workout information.
* Sandbox will be used to test payment processing.
  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)**

Graphical user interface

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