Software Project Management Plan

COSC 412 Individual Project

Fall 2019

Krysta Valenzia

Overview

Purpose and Scope

The purpose of this website is to help users choose healthy options in a very unhealthy world. Most of what we revolve around is food oriented. I am creating a program that has a mixture of a few different key aspects of life that will make it easier on all the everyday people to create a better lifestyle for themselves. When I say “everyday people” I mean those that don’t feel up to cooking some night and just want to order out, or those that need a little more motivation to work out.

Product Features

* Find healthy food in the local area (eating out)
  + Enter information:
    - Your location
    - Diet Restraints
* Create healthy recipes from what you have at home
  + Enter information:
    - What food you have at home
    - Breakfast/lunch/dinner
* Track weight/height/age and formulate information needed to get to specific goal
  + Enter information:
    - Age/Height/Weight
    - How much you wish to gain/lost
* Track food/caloric intake
  + Enter food you ate that day
  + Protein needed for your specific body type
  + Water intake needed

Assumptions and Constraints

The project will be conducted with the following assumptions:

* Work will be periodically reviewed and updated by client but mainly by individual creator
* A working prototype will be constructed by the end of the semester

The following constraints are observed:

* Inexperienced individual working with new technologies requires a steep learning curve
* Scheduling difficulty between group work and individual work
* Working in virtual environment
* Short time span

Communication Plan

Members and stakeholders will utilize GitHub to coordinate production and submit deliverables.

Link to GitHub: <https://github.com/4krysta/IndividualProject412>

Point of Contact for GitHub: Krysta Valenzia

Staff and Contacts

|  |  |  |
| --- | --- | --- |
| Name | Role | Notes |
| Professor Rebecca Broadwater | Client | Office Hours (virtual): Mondays/Thursdays: 6PM-6:30PM (Please contact me to schedule a WebEx)  Phone: 410.598.3483 (text message preferred)  Email: rbroadwater@towson.edu |
| Krysta Valenzia | Client/Coordinator/  Documenter/Programmer | Email: kvalen14@students.towson.edu |

Tasks and Outline

Weekly Deliverables

|  |  |  |
| --- | --- | --- |
| Item # | Description | Date Due |
| 1 | Requirements | 11/27/2019 |
| 2 | HLA, Class Diagram and Interface Spec | 11/27/2019 |
| 3 | Use Cases and Sequence Diagram | 11/27/2019 |
| 4 | SPMP | 11/27/2019 |
| 5 | Repo Setup | 9/30/2019 |
| 6 | Create skeleton of unit tests   * Fill in skeleton of unit tests as code is written * Unit tests completed by end of project   Create skeleton Integration tests   * Fill in skeleton of integration tests as code is written * Integration tests completed by end of project   Write end-to-end System Test Procedure | 11/27/2019 |

Product Creation

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| --- | --- |
| **Task ID** | **Task** |
| 1 | Create Landing Page for website   * Include the following: * About Creator * Redirecting links to what the user is interested in * Registration Option |
| 2 | Create User Registration Page   * Possibly Java/Spring framework * Include following fields   + Username   + Password   + First and Last Name   + Age   + Weight   + Height * Leads to main web page after registration |
| 3 | Create Healthy Eating Page   * Consists of APIs * Includes following options:   + Restaurants Near You     - API to configure information gathered to find restaurants   + Make Healthy Food at Home     - API to configure information gathered to find recipes to make at home |
| 4 | Create Tracking Page   * Consists of Widgets * Includes following options:   + BMI Calculator     - Widget: BMI Calculator   + Calorie Calculator     - Widget: Calorie Calculator Pro   + Protein and Water Calculator     - Widget: Protein Intake Calculator     - Widget: Water Intake Calculator |
| 5 | Create Database System   * Possibly using MySQL server in Linux environment * Setup tables for user information and PII * Create table for user accomplishments |
| 6 | Create Web Server   * X10 Hosting with cPanel * Hosts website on WordPress |

Product Presentation

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| Section |
| Intro to Problem and Solution   * General Product Overview * Challenges faced * Constraints * Overview of collaboration tools |
| Intro to Product   * Features * Website Demo |
| Technical Aspects of Product   * Programming Languages Used   + Advantages/Disadvantages * Infrastructure Used   + High level Architecture Diagram   + Ex) Linux, Apache, MySQL, AWS Cloud environment   + Show and Tell * Database demo |
| Plan for Expansion   * Addresses scalability and adaptability of the system * Possible additions to the program |

Managing Change

In order to manage any change we need to make sure that all of the restaurants and recipes stay up to date. All plugins must be refreshed. User data needs to be maintained in the database so that if someone deletes their profile then they are no longer having any information being tracked. API’s will need updating. System will send out a message that it will update at a certain time early in the morning so that users will not have any issues if they are using it during service hours.

Work Breakdown Structure

API’s :

* Restaurants near you
* Create recipes from what ingredients you have
* Fitness Tracker