Merrimack College Well-Being Application

Requirements Document

Team: Y2K

Members:

Kevin Sampson

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By: Brian Boyle

Introduction

By: Brian Boyle

Everyone has dealt with some sort of emotional, physical, mental, or social health factors that can affect their lives. This project aims to impact and help people who struggle with any sort of wellbeing aspect of their life. This is to be created through a mobile application that would manage the mental health and wellbeing of its users. Upon opening the application for the first time that day, questions prompt the user in order to assess their wellbeing. Given the results of those questions, information would be provided to the user with wellness based activities. These activities include mainly videos that are linked with the app and other infographics about the topics. To help develop this application, Ray Lavoie from the Marketing and Sports Management Department will provide us with infographics, supplementary videos, and a list of questions about each topic of wellness. This software has great potential to effectively help people and we all look forward to the development process.

Executive Summary

By: Brian Boyle

The completed Wellbeing app will be used by Merrimack students, faculty, and staff so that they can assess, manage, and maintain their mental health. Users of the app will answer questions everyday and after the assessment they will be able to view videos, infographics, utilize a wellness tracker, and be able to journal down their thoughts and emotions. This app will be an iOS app, which means it will only be available on Apple phones and tablets.

Names	Role	Email
Vikku Ponnaganti	Team Leader/Back-end	ponnagantiv@merrimack.edu
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Functional Requirements

- Login/Creating account(s)

  By: Vikku Ponnaganti

  - Every user must be able to create an account with an email address.
    - The initial startup page consists of two pages.
    - Sign up page is presented via clicking on a sign up button.
  - Users must be able to log in with an account.
    - Login page is presented by default.
    - Login credentials can be saved for ease of logging in again.
  - Users must be able to create a password to go along with their email address.
    - Characters are hidden when typing password, but can be revealed via a button.
    - All passwords must have a capital letter, a number, and a special character.

- Questionnaire Page(s)

  By: Vikku Ponnaganti

  - On the Charts page, there is a button that will send you to the questionnaire.
  - Users must be given 5 random questions that are pulled from the database.
    - All the questions are stored in a database and sectioned out by categories. Then by random, the program will pick one question from each category to then be displayed to the user.
      - Each question will have a rating bar, 1-10, on how you feel about the questions.
  - 5 questions consist of varying questions that will assess submitted data and provide a score.

- Home Page

  By: Brian Boyle

  - Users must be able to see and can interact with a graphic called the Gratitude Tree.
    - The Gratitude tree will be interactive with the user.
      - Leaves will display a Day (M.T,W,F,S) when clicked it will open up and display what you are grateful for that day.
      - The tree will reset after each week so that the user interface won't get cluttered and keep a simplistic design.

- Charts Page

  By: Brian Boyle

  - Users should be able to see graphs and information that they can see and interact with.
    - The information is based on the questions that they answer before using the app.
      - Users should be able to see if they have a positive trend or negative trend representing how they answer the questions.
  - Holds the button for the Questionnaire

- Mental Fitness Matrix Page(s)

  By: Kevin Sampson

  - Users must be provided with a Mental Fitness Matrix.
    - The graphic will have invisible hotlinks to videos/graphics that tell more about that topic once you click on the topic.
      - The hotlinks are displayed over each part of the graphic, which redirect the user based on where was clicked.
  - Users must also be able to access and utilize a database of all videos and graphics, separate by category.
    - There will be a tab on screen that will let you navigate through all of the videos that are in the database.

- Journal Page(s)

  By: Kevin Sampson

  - Users must be able to write down their thoughts and notes about their well being that day.

        - The journal will be sectioned off so you can easily organize your thoughts.
        - You can select past and future days to write in them or look back to see how you left on that specific day.
        - With all of the information you will then see a trend of your behavioral patterns throughout the period of using the app.

- Profile Page(s)

  By: Vikku Ponnaganti

    - The software must allow a user to access their profile page.
    - Users must be able to change their profile picture from a provided default image.
        - Pictures must be selected from a file submission on your device.
    - Users must be able to access the settings via profile page screen.
        - A button is presented to redirect the user to the user manual.

- Help

  By: Kevin Sampson

    - Users unsure of how to navigate through the application should be able to reference our user manual which guides them throughout the user interface.

Non-Functional Requirements

By: Brian Boyle

- Simple
    - Interface must be clean and concise, each page of the app should have a few or one task.
    - Interfaces must contain large buttons and words to reach out to all types of users.

    - Interfaces could be accessible by colorblind and deaf individuals.
- Reliability
    - The application should never crash or be interrupted by other sources.
- Performance

  By: Vikku Ponnaganti

    - Application must run on iOS platforms from at most the last 5 years to take full advantage of fast processing speed provided by phone specifications.
    - Application should be free of lag and other performance drawbacks.
        - There will be close to instant responses from the app.
            - When prompted for information, it will prompt the user right away.
        - No lag between screens.
            - Won't have to wait in a loading screen.
    - The flow of the entire program has to be fluid and there should be no interruptions between screens or pages.
- Supportability

  By: Kevin Sampson

    - Should be well commented throughout the entire program.
        - If another programmer wanted to make our app better it would be easy for them to reuse our code to create better functionality because of how easy it is to interpret.
    - Should have an update to date Git since it is open sourced.
        - Latest versions of the code uploaded to Bitbucket.

Potential Risks

- Passwords

    - Characters are hidden when typing password, but could be revealed.
    - Passwords must have a capital letter, a number, and a special character.
    - Database is provided by Google Firebase, so in the case of Google server failure, data remains saved.
- Software Bugs
    - If we use YouTube links, videos could be taken down or become corrupted.
    - Latency could be a potential bug leading to a decrease in performance.

Glossary

- Firebase Database
    - The Firebase Realtime Database is a cloud-hosted database. Data is stored as JSON(file format) and synchronized in realtime to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one Realtime Database instance and automatically receive updates with the newest data.
- User Interface
    - Refers to the aesthetic elements by which people interact with a product, such as buttons, icons, menu bars, typography and colors.
- Graphics
    - Defined as visual presentations such as artworks, drawings, animations, and designs.
- Gratitude Tree
    - In this specific instance our Gratitude Tree will show the user what they are most grateful for using colored leaves. Each category of wellness will

correspond to a color and that color then will be shown on a tree in the home page as a reminder of how well you are doing for that particular week.

- Git
    - Git is software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows.
- Mental Fitness Matrix
    - This matrix is in the form of a pyramid and it shows you the importance of each part of your wellness.
- File Submission
    - The software will allow the user to upload pictures from the phone to be used as a profile picture.
- Positive Trend
    - A trend where both the X-axis and Y-axis are going up.
- Negative Trend
    - A trend where both the X-axis and Y-axis are going down.

Signature

In this section of our Requirements Document, we ask our client, Professor LaVoie, to sign off on our document. This document is a living document and is subject to change over the course of the project but we inform the client of big changes to the document.

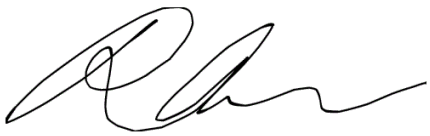
Print

Raymond Lavoie_____

Date:

October 5th 2021_____

Signature:



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