Wentworth Institute of Technology

COMP4960 – Software Engineering

Instructor: Joshua Gyllinsky

Software Design Document

for

Mind, Body, and Soul

Version 2.0

Prepared By

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GitHub Link

<https://github.com/KingJay014/MindBodySoul-MBS>

05/04/2023

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# Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author(s)** |
| *MM/DD/YYYY* | *X.Y format*  *Where:*  *- X is the major revision*  *- Y is the minor revision* | *Information about the revision, such as what is added/edited/removed, etc.* | *Full name of person(s) who made the changes* |
| 03/24/2023 | 1.0 | Initial version | Everyone |
| 05/04/2023 | 2.0 | Presentable version – updated just about the entire document with up to date information regarding the latest version of the application | Aidan Grot |

# Introduction

## Document purpose

*Mind, Body, and Soul* is an iOS and Android application to provide the user with simple tools and information to enhance the individual’s wellness in terms of mental and physical health. The prevalence of mental health issues has certainly increased within recent history, and physical health is extremely important for the mind as well. Because of this, we developed *Mind, Body, and Soul* as a simple tool to get users started in the right direction for general wellness. Our primary goal is for the app to have a simple, non-intimidating UI, and to provide useful information and emphasize the importance of overall wellness.

## Product overview

*Provide the problem statements, proposed solution, and novelty.*

* + 1. Problem statement  
       The primary problem with the development of Mind, Body and Soul, is our inexperience with mobile app development. Along with this, we do not have very much experience programming full-fledged applications as well.
    2. Proposed solution  
       Overall, the solution is taking advantage of as many external resources as we can to teach ourselves how to develop an application. Along with this, strong communication with the team will be needed to have each individual member complete the tasks that correspond the most with what they are familiar with.

## Product functionality

* Mind function
  + Breathing section
  + Mental health information
* Body function
  + Endurance information
  + Strength information
  + Balance information
  + Flexibility information
* Soul function
  + Meditation timer
  + Meditation information

# System requirements

## Functional requirements

The app will have three primary sections the user can access, which are Mind, Body, and Soul. The Mind section has two primary functional sections, which is a breathing page, where the user can access information about 3 different breathing techniques, with visual indicators to provide the user with the correct breathing time intervals. The other primary function is a page with a list of wellness tips and information, to steer the user in the right direction for mental wellness.

The body section will provide the user with information regarding the 4 main types of exercises. These exercise categories include endurance, strength, balance, and flexibility. These sections include information regarding the importance and the benefits of these types of exercise as well as supplemental imbedded YouTube videos.

The soul section focuses on meditation. There are two primary functions within the soul section which include a meditation overview and timer, as well as a page with the benefits of meditation and more supplemental information.

UI related functional requirements include *fading* animations for the breathing text, as well as fading animations for the primary buttons. There will be imbedded YouTube videos as well, as mentioned earlier. There is also a functional timer within the soul section.

## Non-functional requirements

In terms of non-functional requirements, the app will have:

Scalability – works for different screen sizes

Simple, easy to use UI

IOS and Android compatible (Android needs testing, however we do not own Android devices)

Black and White color scheme

# System architecture

## Overall architecture

Using the React Native framework, and the simple nature of the application, the entirety of the development of the app was developed in the App.js file. Since the application is simple, and written in JavaScript, there’s not much to say in terms of system architecture. The app runs with the components supplied by the React Native framework, which has made development straightforward, with a similar development pattern to HTML.

The basic idea is that I have a <Stack.Navigator> with a list of all the pages, a stylesheet at the bottom to stylize text and containers, various other components from the React Native framework to create the functions mentioned in the functional requirements, all within App.js and custom assets put in the assets folder.

## 3.2 Technology stack selection

Mind, Body, and Soul uses the React Native framework and is programmed in JavaScript.

# System Design

## UI Screenshots

## UI Miscellaneous Information The UI buttons use free clipart online, edited into square shaped buttons using Adobe Photoshop.

# Others

*Besides personal knowledge, most of the information regarding meditation and mindfulness used in the application can be found within these articles/websites:*

[Meditation: Take a stress-reduction break wherever you are - Mayo Clinic](https://www.mayoclinic.org/tests-procedures/meditation/in-depth/meditation/art-20045858)

[Four Types of Exercise Can Improve Your Health and Physical Ability | National Institute on Aging (nih.gov)](https://www.nia.nih.gov/health/four-types-exercise-can-improve-your-health-and-physical-ability#:~:text=Research%20has%20shown%20that%20it%27s,boredom%20and%20risk%20of%20injury.)

[The 4 most important types of exercise - Harvard Health](https://www.health.harvard.edu/exercise-and-fitness/the-4-most-important-types-of-exercise)

[15 Simple Ways to Relieve Stress and Anxiety (healthline.com)](https://www.healthline.com/nutrition/16-ways-relieve-stress-anxiety#8.-Create-boundaries-and-learn-to-say-no)

[How to Improve Mental Health: MedlinePlus](https://medlineplus.gov/howtoimprovementalhealth.html)

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