Malayan Colleges Mindanao

College of Computer and Information Science (CCIS)

CS152 - Human Computer Interaction

M3 l Part 3.1

Team J.A.O.G. Solutions

Submitted by:

Alfred Ashley Andrion

Nhoel Gerard Jariol

Vaughn David Oliva

Submitted to:

Cherry Lisondra

Project Description

Fit and Well application is a simple android application created by the team J.A.O.G. Solutions. The idea was formulated due to the rise of concern of the physical health & fitness of people who currently engage in a sedentary lifestyle as it is an important aspect of the well-being of a human person. Here in J.A.O.G. Solutions, we recognize the importance of physical health & fitness, especially taking into account the circumstances that our world finds itself today. Also, we recognize this as an opportunity to take advantage of the technology available to us and the skills that we possess. Therefore, we intend to create a fitness companion application that will be specifically designed for the physical fitness needs of students and employees who are working from home. Whereas we will try to ensure that our target population are able to maintain a balance between fitness and responsibilities while at the same time refrain from being too obstructive.

Requirements Summary:

MINIMUM REQUIREMENTS:	**OS:**	**Android 5.0**	**iOS 7**
	RAM:	**0.5 GB or higher**	**0.5 GB or higher**
RECOMMENDED REQUIREMENTS:	**OS:**	**Android 6.0 and higher**	**iOS 8 and higher**
	RAM:	**1 GB or more**	**1 GB or more**
OTHER REQUIREMENTS:	**Permissions:**	**Notifications**	**Notifications**

The table above represents both the minimum & recommended systems requirements.

Prototype Description

The team developed the prototype with the use of Figma. Figma is a vector graphics editor and prototyping tool which is primarily web-based, with additional offline features enabled by desktop applications for macOS and Windows. The link for the prototype can also be easily shared and distributed to the testers who are going to undergo the survey.

Prototype Link: https://bit.ly/fitandwellproto

Rationale

The team chose Figma as the method of creating the application prototype. Since Figma enables us to do alterations easily, after handing out surveys to the users. Despite the limitations of Figma as an application development tool, we can still implement things that needs to be altered based on the users' feedback. It showcases the application UI and design flow before actual development takes place. The prototype showcases the theoretical main functions of our prototype.

Prototype

Splash Screen

Login/Register

Login

Register

Reg. 2nd page

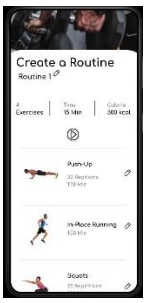
Main Menu

Profile Screen

Rewards Screen

Workout Menu

Routine List



Routine Page

Workout Proper

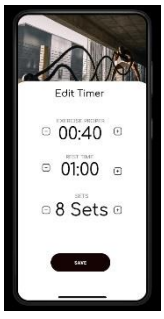
Edit Workout

Select Area

List of Exercises

Exercise Guide

Stopwatch



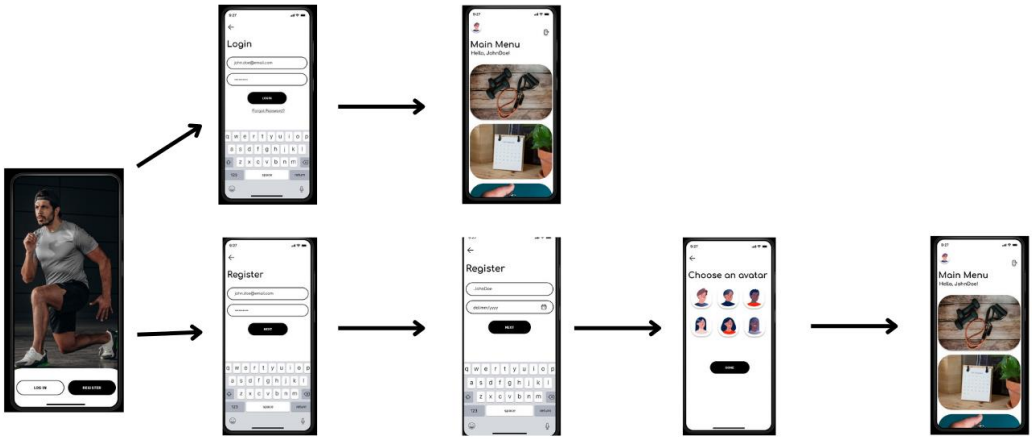
Edit Stopwatch

Calendar

Exhibits

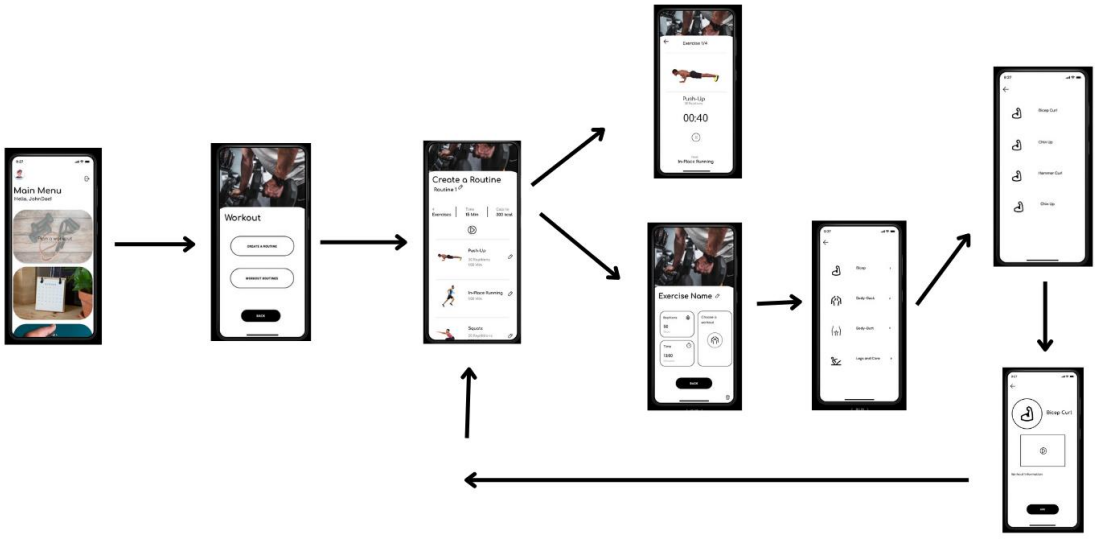
The following exhibits show different possible scenarios that a user of the application will undertake. It also shows the flow of the prototype

Exhibit A



The user intends to create a new account for the application. The user is asked to input details such as E-Mail, Password, Username, Date of Birth, and the user's preferred avatar. The exhibit also shows the navigation flow of an existing user.

Exhibit B



An existing user intends to create a new workout routine or execute a pre-existing routine. At the routine page, the user has the ability to edit the exercises belonging to the routine. Whereas the user is able to customize the length, and number of repetitions. The user also has the ability to choose an area according to the body area the user wishes to focus on. Each exercise page has a video guide and general information regarding the exercise. Upon selecting an exercise, it will automatically reflect in the routine page. Once a particular exercise is finished, it will then move on automatically to the next, based on the order from the routine page.

Exhibit C

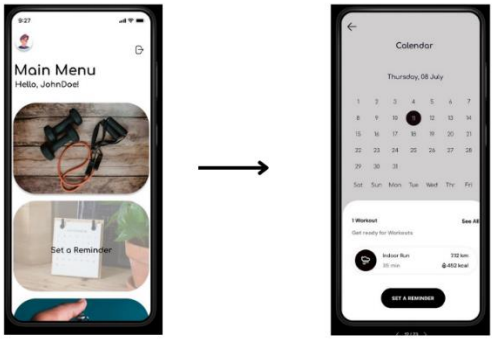
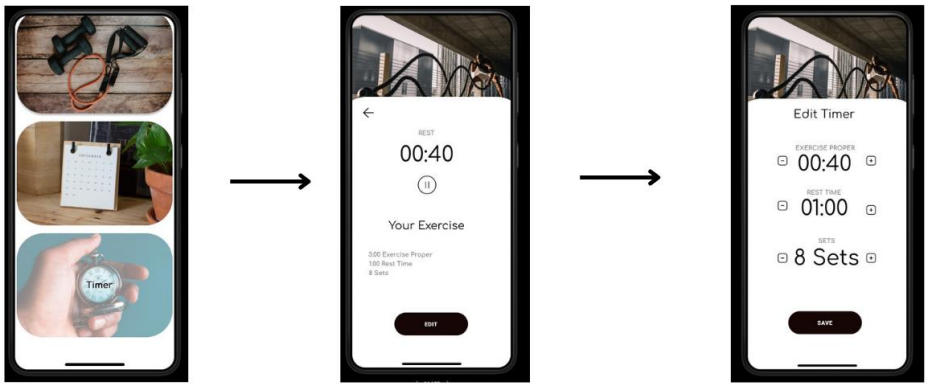


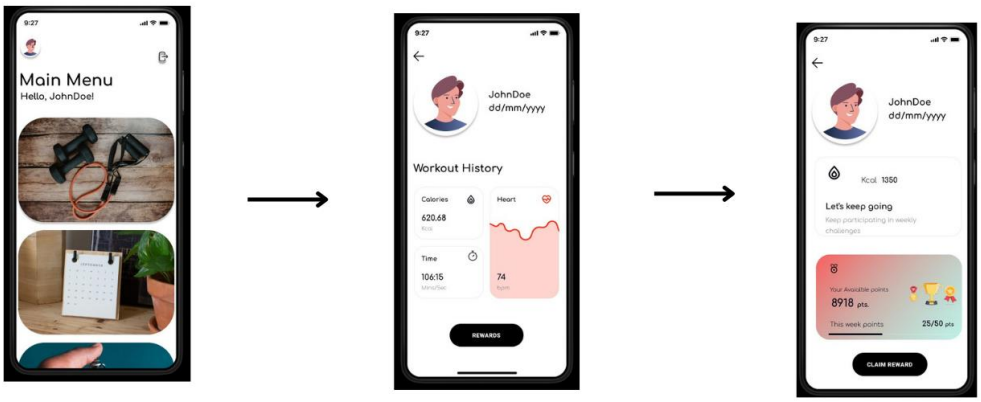
Exhibit C shows the simple flow of accessing the *Set a Reminder* page of the application. Whereas the calendar will be displayed together with the ability to set a reminder for a particular date and time.

Exhibit D



An existing user intends to utilize the built in workout stopwatch for the user's personal exercise. The user has the ability to play and pause the timer. At the same time, the user is also able to edit the duration of the exercise and rest time, and also the number of sets the user wants to do.

Exhibit E



A frequent user of the application will be able to earn points. The user can also check his or her workout history, by pressing the avatar icon found on the main menu. The profile page will the user's workout history indicated by the user's average calories burnt, time spent exercising, and the user's average heartbeats per minute. At the same, the user can also claim rewards through the reward system found on the profile page. However, the rewards system is not yet fully implemented by the team.

Changes to the Requirements

Specific changes were made to the design of the system due to the usability criteria that were used to evaluate the prototype. The change to the requirements utilizes the initial feedback of the team. One of the main changes to the prototype was to implement a minimalistic design. This is done to ease the use of the application, especially in the aspects of navigation the application and its operation. To implement the changes, the team decided to utilize Figma as it provides live alteration as soon as survey feedback start to come in.

Initial Evaluation Plan

Due to the pre-existing conditions such as the ongoing pandemic and online classes, the team is unable to implement a physical evaluation of the application. As a result, the team utilized social media platforms such as Discord and Messenger as a medium for evaluation The survey consists of three parts: overall performance/satisfaction with using the prototype, functionality of UI prototype, overall Feedback (positive, negative, things to be taken note of for changes to be made).

Usability Specifications

- **Learnability** – This will show how operational our system can be. It will gauge users understanding on the system UI of the prototype.

- **Efficiency** – The user would be able to register and log-in the application under 2 minutes

- **Memorability** – Users can easily remember the navigation of the UI with the use of visual objects such as icons and pictures that depict its primary function.

- **Errors** - The goal of this prototype is to have a system which has no errors. The UI is simple therefore it really doesn't need any specific instructions in navigating the application.

- **Satisfaction** – This specification would enable us to gauge the user satisfaction after using the system prototype. It would enable us to receive feedback regarding the overall design

Population

Around 10 to 20 participants were selected from a pool of people who are currently engaged in a a sedentary lifestyle. They would be asked to navigate throughout the prototype through the Figma link that perform tasks such as, creating a Workout, using the stopwatch, redeeming a reward, utilize a pre-created workout, and setting a reminder. However, the main functions such as creating/utilizing a workout, setting a reminder, and using the stopwatch are the focus of the evaluation

Prototype Tasks:

There are three main tasks for this prototype: Workout, Set reminder, and Stopwatch which could also function as a workout timer. Below are the following tasks that the participants are requested to perform to showcase the prototype's functionality:

• Press log in from the log in menu

• Press each of the main function of the prototype (Workout, Set reminder, and stopwatch)

• Participants will be asked to check if the UI is appealing to them

• Participants would be asked to check if the back button is convenient and easy to press.

Reasons as to why the tasks above are selected to be performed by the users:

• To gauge if the UI is appealing and easy to navigate

• Allow users to find the prototype convenient for frequent use

The Heuristics Evaluation

Visibility of system status

The systems visual objects can be easily pressed and is highly visible. Text cues are also important to inform the user the progress/current state and make it very clear what they are doing.

Match between system and the real world

The prototype follows real-world conventions and is presented in a generalized manner where we used the most common text and language therefore making the information relevant to the prototype easy to understand in a natural and logical order.

User control and freedom

The user is free to determine either they want to use any of the main functions of the prototype. They are able to do what they please, under the limitation of the application. For example, during a workout, the user is able to pause and play.

Consistency and standards

The system prototype flow can be easily navigated and is organized in a minimalist way. Users should not have to wonder whether different words, situations or actions in different places mean the same thing. Users can easily distinguish clickable interfaces between the menus.

Error prevention

Error messages are clearly displayed in plain text right after if there is an error inputting proper details. It helps users prevent problems for occurring.

Recognition rather than recall

Making the visuals and texts/words visible so that users does not have to remember the entire process in order to navigate and operate the application

Flexibility and efficiency of use

The prototype caters to both experienced and inexperienced users. Users who always use mobile application can find the flow of the prototype familiar because most fitness apps functions similarly to one another.

Aesthetic and minimalist design

The prototype only contains information relevant to the application. The UI is clean and presentable and users who like minimalists' design would prefer it that way.

Help users recognize, diagnose, and recover from errors

Since the prototype is near error free and would like to showcase a fluent presentation, the team tried to implement an information button on every page if the things needed to be done is questionable to indicate instructions and if ever problems occur a simple error message would just notify the pre-requisite button to proceed/go back to a specific step.

Help and documentation

Users can easily find help and documentation of the project by contacting the developers. However, the complexity of the application entails the lack of need of support documentation.

Roles

The team will try to procure at least 10 participants who currently engage in a sedentary lifestyle to participate in the evaluation of the prototype. The proponents will at least invite 3 or more per person to have different/specific type of participants in different circles.

Developer / UI Designer Member	Task(s)
Nhoel Gerard Jariol	Will be taking note of the user's experience, instruct the participants on what to do, accept and take note of feedback which is essential on making changes in the program.
Vaughn David Oliva	Will be taking note of the user's experience, instruct the participants on what to do, accept and take note of feedback which is essential on making changes in the program. Also in-charge of finalizing the survey questionnaire.
Alfred Ashley Andrion	Will be taking note of the user's experience, instruct the participants on what to do, accept and take note of feedback which is essential on making changes in the program.

Participants Survey and Feedback

After presenting and conducting online surveys/tests,

DATA GATHERING METHOD	DESCRIPTION
Online Survey through google forms (Quantitative)	After the Online Testing, the team will be handing out a survey to the participants to gather data for the user's experience with the prototype which the team will be interpreting in a 5-point Likert scale.
Feedback (Qualitative)	The survey that the team provided will support a feedback section to help users/participants share their thoughts, comments, and suggestions on how we can improve the application prototype and issues that needs to be addressed/do some alterations.

The table above shows how the team will conduct data gathering for the survey.

QUESTIONS:	METHOD OF ANSWER:
SECTION 1 - Overall functionality of UI prototype:	
Accessibility of the prototype	5-POINT SCALE
Setting the timer	
Workout Choices	
App efficiency for work-outs	
SECTION 2 - Overall performance/satisfaction:	
On a scale of 1 to 5 how well is your experience with the Fit and Well prototype	5-POINT SCALE
On a scale of 1-5 how often do you encounter errors on the prototype app	
UI design prototype	
App ease of use	
SECTION 3 - Overall feedback:	
App usability	5-POINT SCALE
would you use the app as your primary workout tool?	
would you recommend the app to your friends?	
Feedback	Long answer text

The table above presents the Questions that will be present in the survey for this prototype. This survey will be handed to the participants. The survey can be accessed through this link:

5-Point Likert Scale Survey Interpretation

Scale	Range Value	Interpretation	Classification
5	4.50-5.00	Highly Acceptable	Successful
4	3.50-4.49	Acceptable	Successful
3	2.50-3.49	Moderately Acceptable	Neutral
2	1.50-2.49	Fairly Acceptable	Unsuccessful
1	1.00-1.49	Not Acceptable	Unsuccessful

The table above represents the interpretation of the survey questions given to the participants. The survey will be used to interpret whether the design and features presented are successful and useful for people who currently have a sedentary lifestyle.