

## Development of Nature Detox Android Based Mobile Application

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**Abstract:** Physical health is very important for each and every one of us. However, most of us reluctant to figure out their daily routine, food intake and physical fitness routine. People tend to opt for fast food instead of eating clean because it saves time and sold at the most affordable price. An unhealthy diet coupled with none physical fitness routine is a root cause of all the diseases. The government has emphasized all of us to live healthily and boost our immune system due to the pandemic of Coronavirus (Covid-19). The major contributing factors to obesity among Malaysians include unhealthy and uncontrolled food intake, lack of physical activity and genetics. If we scroll Google Play Store and choose a health application, most of the application creator only provides all types of workouts with either eat clean or water drinking. To raise health awareness, a Nature Detox Mobile Application using an android platform has been created. It is an application that intends to raise health awareness for user who aged between 18 to 40 years old on how to keep themselves healthy by eating clean food, drinking juices and exercising. The objectives of the application are developed in mobile-based Android Platform. The methodology used to develop the application is AGILE model. Testing had been carried out and the application has received a positive feedback from the target user with 92% overall percentage based on the system usability scale. The application can operate smoothly and achieve all of the objectives. Finally, it is anticipated that this project would assist the user in their daily lives.

**Keywords:** Eat clean, Drinking juices, Exercising, Health, Raise awareness

### 1. Introduction

Personal health is the most vital element that affects human beings' daily life. There are almost 33 million inhabitants live in the Southeast Asian region. The average life expectancy of the population was estimated to be almost 76 years by 2017 in Malaysia [1]. This is owing to the rising number of overweight and obese people in Malaysia, which leads to illnesses including cholesterol and cardiovascular disease (CVD), type 2 diabetes, kidney disease and liver disease. It occurs due to unhealthy daily food intake and little or no physical exercise [2]. Besides, based on the research carried out by National Center for Biotechnology Information (NCBI) organization in US in Selangor, sixteen among 20 studies reported that applications have a positive impact on the targeted health behaviors or clinical health outcomes [3]. A mobile health-based application developed to assist everyone by

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implemented the AGILE model. User requires to fill in their personal details such as gender, weight and height. This application is designed with information for guiding user with eat clean module, juice drinking module and do workout module with the statistic record daily to ensure that the users can have a healthy lifestyle. The following section will discuss related work, methodology, results and discussion and last section is conclusion.

## 2. Related Work

This part clarifies the project related work that covers topic on mobile application and comparisons between existing application and developed application, Nature Detox Mobile Application.

### 2.1 Background of the study

Mobile health application is application that focuses on giving everyone the information about how to live a healthy lifestyle through the help of mobile communication devices. There are almost 32,500 mobile health applications available in the Play Store. All of those mobile health applications enable users to save their personal information, store their vital data to interpret data. It is easier for the user in accessing their personal account by using internet in the mobile health application. These features will assist everyone to utilize the mobile health application easily. Mobile health application is clearly for those who desire to live a healthy lifestyle in eating, drinking and exercising. The applications will let users to gain a lot of health knowledge and record their health information. They can see the progress bar and keep track of their personal health info.

### 2.2 Mobile Application

Mobile Application is software which is developed especially for launching in the devices such as smartphone, tablet and smart watch. A smartphone app or a little piece of software that runs on a website is most commonly referred to as an application [4]. Mobile applications are often accessed via the device so that user can use it at anywhere and anytime.

#### 2.2.1 Comparison of existing application

In this section, a detailed comparison is carried out between the existing applications which are 300+ Easy & Health Detox Cleansing Drinks [5], Natural Remedies: healthy life, food and beauty [6], Healthy Detox Cleansing Drinks Recipes [7] and the developed application, Nature Detox Mobile Application. All of these comparisons are shown as Table 1.

**Table 1: Comparison between the existing applications**

Element	300+ Easy & Health Detox Cleansing Drinks	Natural Remedies: healthy life, food and beauty	Healthy Detox Cleansing Drinks Recipes	Developed Application, Nature Detox Mobile Application
Platform needed	Android 5.0 and above	Android 4.1 and above	Android 4.1 and above	Android 4.1 and Above
Module	Water module, Smoothie module, Soup module and Tea module	Problem and disease module, Natural remedies module, Essential oils module and Healthy life module	Detox water module, Detox smoothie module, Detox soup module and Detox tea module	Eat module, Juice module and Workout module
Visual Aids	Graphics	Graphics	Graphics	Graphics and GIF

**Table 1: (continued)**

Element	300+ Easy & Health Detox Cleansing Drinks	Natural Remedies: healthy life, food and beauty	Healthy Detox Cleansing Drinks Recipes	Developed Application, Nature Detox Mobile Application.
Statistic record	Not available	Not available	Not available	Available
Music player	Not available	Available	Not available	Available
Internet connection	Not require	Require	Require	Not require
Strengths	No internet connection needed	Music player provided	Consistent button	Contains graphics, GIF, progress statistic record and music player
Weaknesses	No progress statistic record and music player	No progress statistic record	No progress statistic record or music player	Setting not available

Table 1 shows the detailed comparison between existing applications 300+ Easy & Health Detox Cleansing Drinks, Natural Remedies: healthy life, food and beauty, Healthy Detox Cleansing Drinks Recipes and the proposed application which is called Nature Detox Mobile Application. The distinction has made by demonstrating the pros and cons of the current application which are selected from Play Store. This proposed application, Nature Detox Mobile Application will include more modules such as eating, drinking and exercising. Besides, this application will provide more features such as recommendation in juice module, progress bar statistic as user's personal record, workout timer and music player too. The application will be presented with visual aids like graphics, GIF and consistent button. The most vital part is the application can be downloaded with free of charge and interact with users in the most user-friendly way.

### 3. Methodology

This section explains topics on hardware and software requirement which used in developing the Nature Detox Mobile Application. In addition, it also covers the methodology used which is AGILE model. The model used in the application developing project is AGILE model which consist of requirement phase, design phase, develop phase, testing phase, release phase and feedback phase [8].

#### 3.1 Requirement

This phase involves with planning and is mainly uses Gantt chart. It contains all phases of AGILE model and its own duration. The concept and outline of the proposal was carried out in this requirement process. Three applications are selected from the Google Play Store and a detailed review of this proposal has been carried out. The scope and objectives for the proposed application also determined. Besides, the software and hardware requirement have been considered. A storyboard of the application was drafted. The application is related to health and is targeted for adult aged 18 to 40 years old.

##### 3.1.1 Software and Hardware Requirements

This section clarifies clearly the software and hardware requirement for developer and the user.

**Table 2: Software and hardware requirements for user**

Requirement	Item	Description
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Software	Operating system	Android version 4.1 (Jelly Bean API level 16)
Hardware	Android mobile phone or Windows PC.	To enable users to install and launch the application. The following shows the minimum requirements: <ul style="list-style-type: none"> <li>• 1GB RAM and 140MB Storage (mobile)</li> <li>• 4GB RAM and 2.8GB Storage (PC)</li> </ul>

Based on Table 2, the user requires the software and hardware which listed in the table for the development and design the application.

**Table 3: Software and hardware requirements for developer**

Requirement	Item	Description
Software	Operating system	Microsoft® Windows® 7/8/10 (32 – or 64 – bit)
	Android Studio 4.1.1	To build and integrate all the interface, modules and application components in the mobile application.
	Adobe Illustrator CC 2019	To design the application interface components and insert into Android Studio such as image view for backgrounds and image file.
	Wondershare Filmora9	To design and edit the Graphic Interchange Format (GIF) and insert into Android Studio in the Workout Module.
Hardware	Computer	To enable the developers to implement Android Studio for the creation of mobile application. The specifications are shown as below: <ul style="list-style-type: none"> <li>• 4 GB storage (500 MB for IDE + 1.5 GB for Android SDK and emulator system image)</li> <li>• 8 GB RAM is recommended plus 1 GB for building and running the Kotlin code smoothly in a shorter time.</li> </ul>
	Input-output devices	To enable the developers to carry out communication with the computer with the operating of: <ul style="list-style-type: none"> <li>• Mouse / touchpad</li> <li>• Keyboard</li> </ul>

Based on Table 3, the developer requires the software and hardware which listed in the table for the development and design the application.

### 3.2 Design

The design phase models the way of Nature Detox Mobile Application Mobile Application works. In application design, the details of the application concept, character, functionality and several other elements were determined. Then, storyboard, flowchart, context diagram, data flow diagram and entity relationship diagram (ERD) were produced.

#### 3.2.1 Context Diagram and Data Flow Diagram

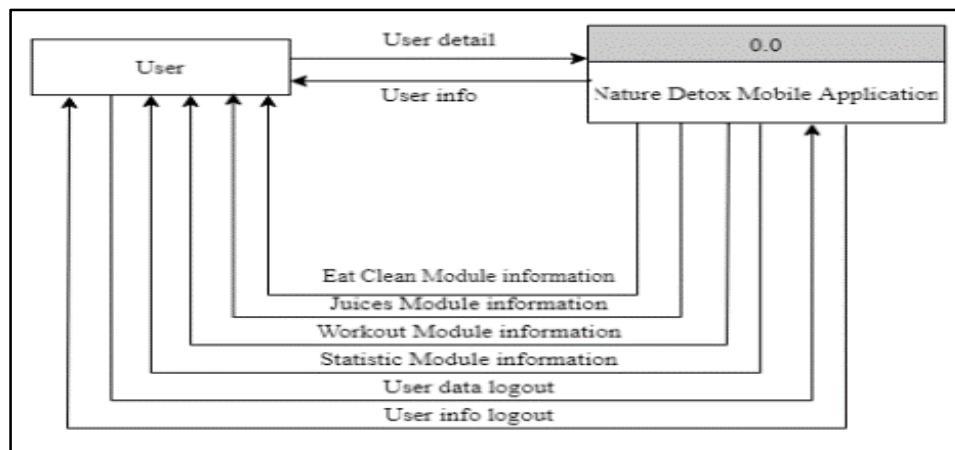


Figure 1: Context diagram

Figure 1 shows the context diagram. The user will require to fill in their personal details which is an input when they sign up or sign in to the application. The application will show the user info at the navigation bar. The Eat Clean Module information, Juices Module information, Workout Module information and Statistic Module information will present information to users such as providing categories a list of selection for users. When user logout from the application, their account will sign out from the application and data will be saved in the application.

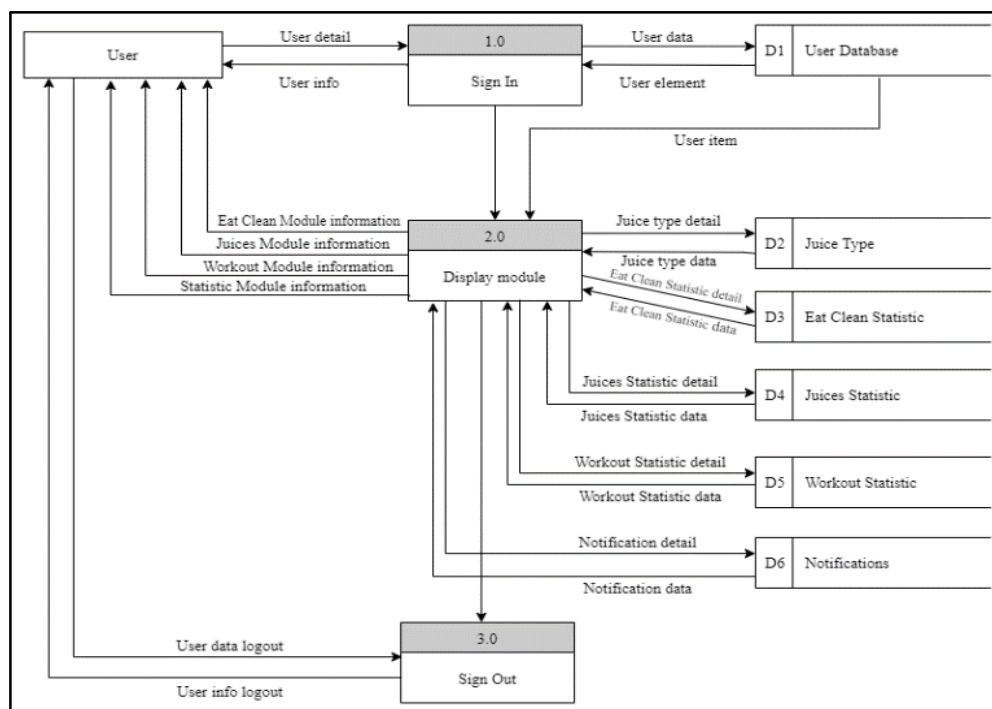
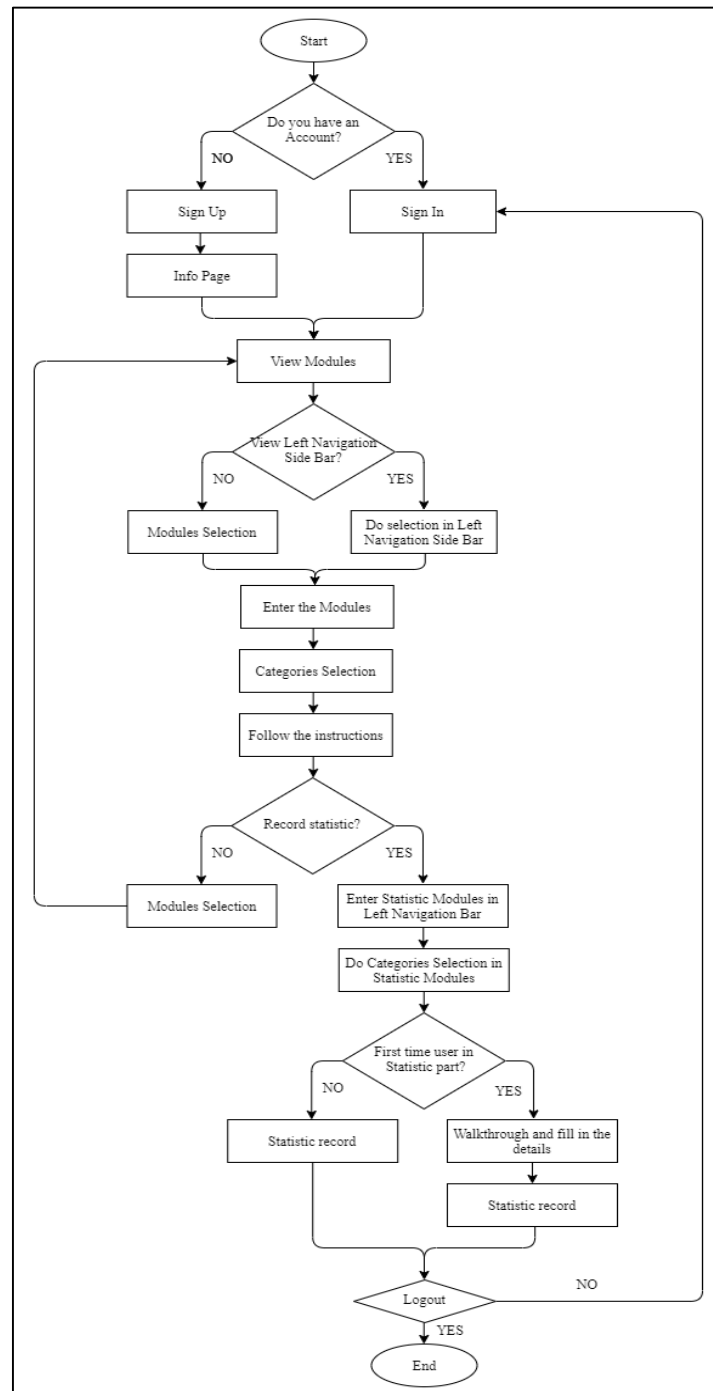


Figure 2: Data flow diagram Level 0

Figure 2 shows level 0 of the Nature Detox Mobile Application data flow diagram. User is required to fill in his/her info before he/she can sign into the application and this user data will be kept in the User Database. Besides, there are six tables will be used to store all user data for all processes in the application. There are four modules that can be chosen by users. The Juices Module information is implemented to store the juice data. In the Statistic Module, the data such as Eat Clean Statistic detail, Juices Statistic detail, Workout Statistic detail and Notification detail will be stored in Eat Clean Statistic, Juices Statistic, Workout Statistic and Notification respectively. All those data can be retrieved easily from database. Based on these table which are Eat Clean Statistic, Juices Statistic, Workout Statistic can record his/her information such as weight, workout time, wake up time, sleeping time, set

target and statistic progress record into tables. Notification table is implemented by notifying users to remind them for recording their personal statistics. Sign Out process is prepared for users to sign out their account from the application without deleting any users' data.

### 3.2.2 Flowchart

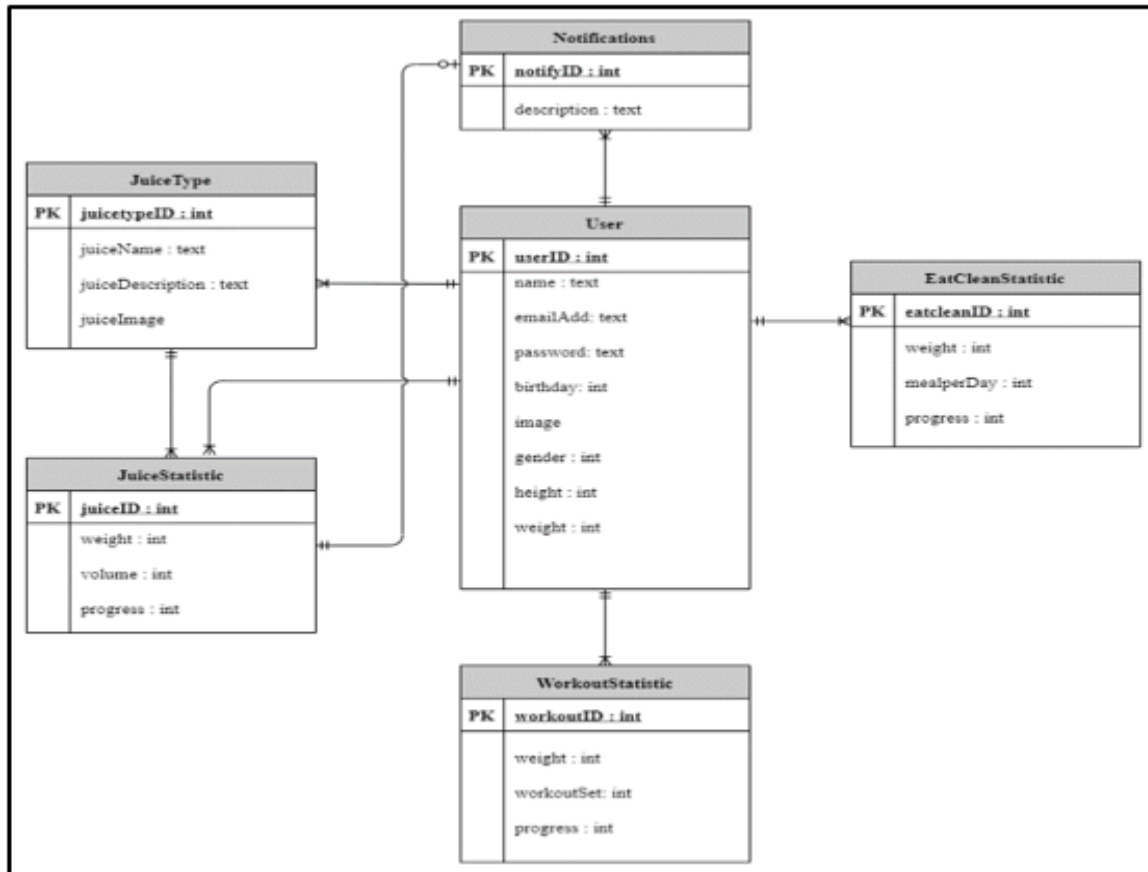


**Figure 3: Flowchart diagram**

Figure 3 shows the flowchart for the application. First time users are required to sign up by filling their personal details such as name, email address, password and their birthday before they can enter into the Info Page of the application. If the users are existing users, they can just sign in with their username and password. Then, users can enter the Home Page that shows three modules such as Eat Clean Module, Juices Module and Workout Module. User can select whether they want to view the left navigation bar or not. Users can select the categories of the modules. They can choose whether they

want to follow the instruction in eat clean, juices or workout. Users also can record their statistic in the Statistic Module. Users can select what statistic they are going to record. Users can logout and they will navigate back to the sign in interface.

### 3.2.3 Entity Relationship Diagram (ERD)



**Figure 4: Entity relationship diagram**

Figure 4 is presented the entity relationship diagram (ERD) of application. There are six entities in this ERD. User entity is used to store user data such as name, email address, password and their birthday. The second entity is JuiceType which is used to store juice data such as juiceName, juiceDescription and juiceImage. The primary key of the JuiceType is juicetypeID. The following entity is EatCleanStatistic with eatcleanID as its primary key. The data that will be stored is weight, mealperDay and eat clean progress. All of these assist users in recording their target and progress. The fourth entity is JuiceStatistic having juiceID as its primary key. This table will hold weight, volume and progress data. WorkoutStatistic will have weight, workoutSet and progress of users' workout data. All of these will assist users in recording their workout target. Last entity is Notifications. It will store description of notifications data.

### 3.2.4 Content Structure Diagram

Content Design of the application shows in Figure 1 of Appendix A. Users should be able to understand each of the modules such as Statistic Module, Eat Clean Module, Juices Module and Workout Module which are assisting them on the way to live a healthy lifestyle. The Recommendation is aided users for increase their knowledge about the benefits of juices.

### 3.2.5 Application Navigation

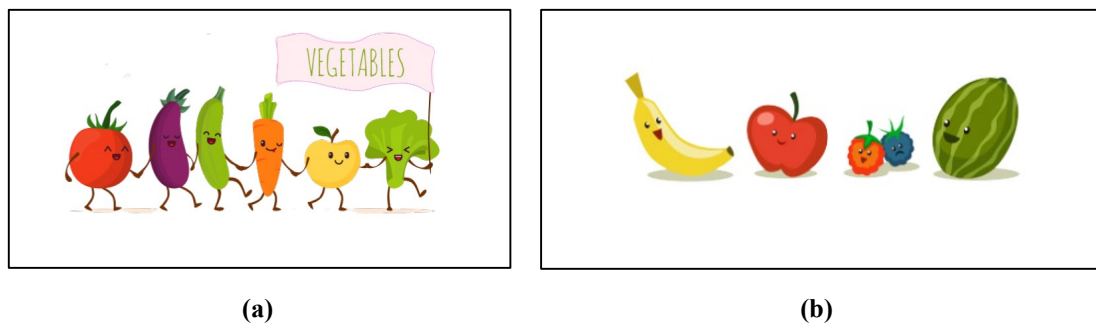
Navigation Diagram contains of the three main modules have the same characteristics which containing a few categories, showing in Figure 2 of Appendix A. Each of the categories has a list for users to do selection and navigate to the instruction interface.

### 3.3 Development (Software Development)

This phase involves with the actual writing of the program. For the developed application, Android Studio is required in the implementation of the application. There are many other tasks included in the coding process. It is critical to find and fix bugs and glitches. The development process often holds up tasks, such as waiting for test results or compiling code so that the application can run. In the end of this phase, a complete application is fully developed.

#### 3.3.1 Development of Graphics

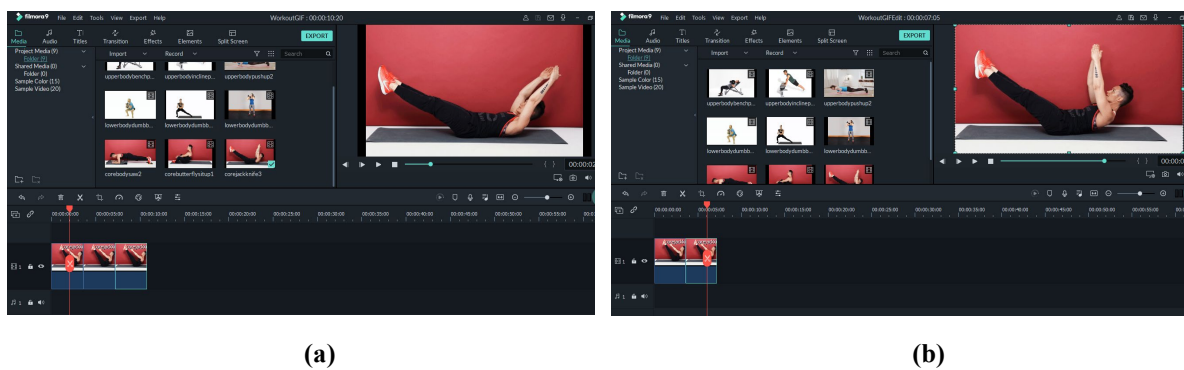
The graphics implemented in the application are designed by using Adobe Illustrator CC 2019. Figure 7 (a) and (b) shows the graphics developed for the modules.

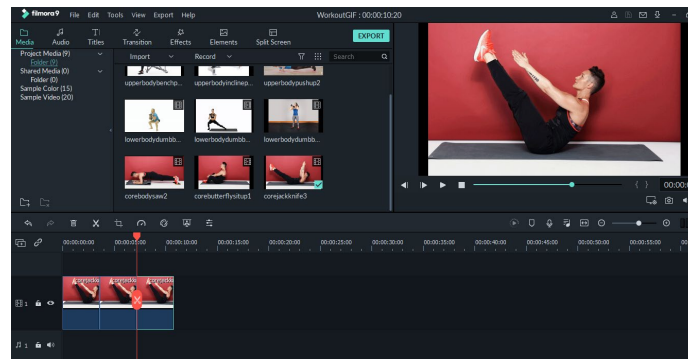


**Figure 7: Eat Clean graphics of (a) Vegetables (b) Fruits**

#### 3.3.2 Development of Graphics Interchange Format (GIF)

The GIF development part has been implemented by using Wondershare Filmora9. The assets are used to show the demonstration of workout in Workout Module. Examples shown in Figure 8 (a), (b) and (c) are workout of demonstration of Jackknife, while other workouts included in the modules are Bench Press, Push-Ups, Incline Push-Ups, Dumbbell Squat, Dumbbell Goblet Squat, Dumbbell Side Lunge, Butterfly Sit-Up and Body Saw.





(c)

Figure 8: (a), (b), (c) are Jackknife workout demonstration

### 3.3.3 Development of Modules

This part will explain the integration of interfaces with its related coding and this step is performed in the Android Studio.



(a)

(b)

(c)

Figure 9: Interfaces of (a) Sign In/ Sign Up page (b) Sign Up page (c) Info page

Figure 9(a) contains of Sign Up and Sign In buttons which can be chosen by users. The first-time users are required to sign up whereas existing users are required to sign in. Figure 9(b) and (c) show the Sign Up page and Info Page. These two interfaces will be filled in by the first time users. Each of the sections is required to be filled before navigating to the following interface.

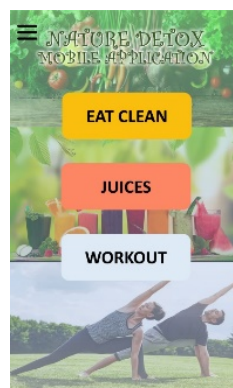


Figure 10: Home page

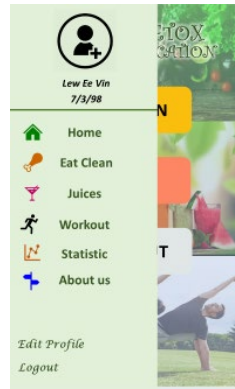


Figure 11: Left navigation bar

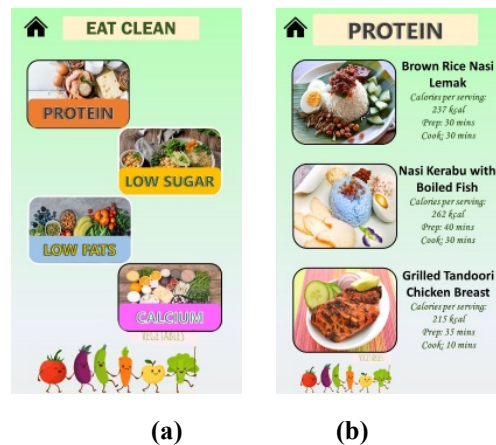


Figure 12: (a) Eat Clean Module (b) Protein Category

Figure 10 shows the Home Page. The interface contains of three modules which are Eat Clean Module, Juices Module and Workout Module. Users can do selection and navigate to the next module categories interface. Figure 11 shows the left navigation bar. The interface contains of personal details and some buttons such as Home, Eat Clean, Juices, Workout, Statistic, About us and Logout. Figure 12(a) shows the Eat Clean Module. The interface contains of some categories such as Protein category, Low Sugar category, Low Fats category and Calcium category. Figure 12(b) is the Protein Category contains of calories per serving, preparation time and cooking time which users can select and navigate to the related food recipes.

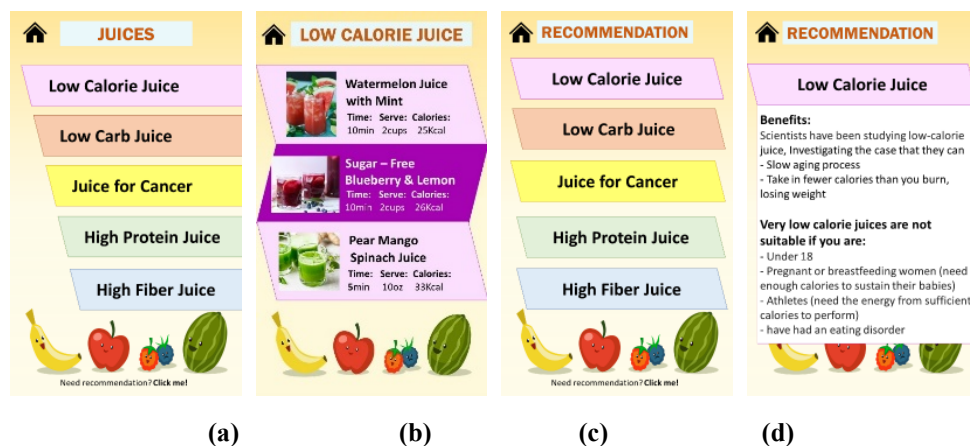
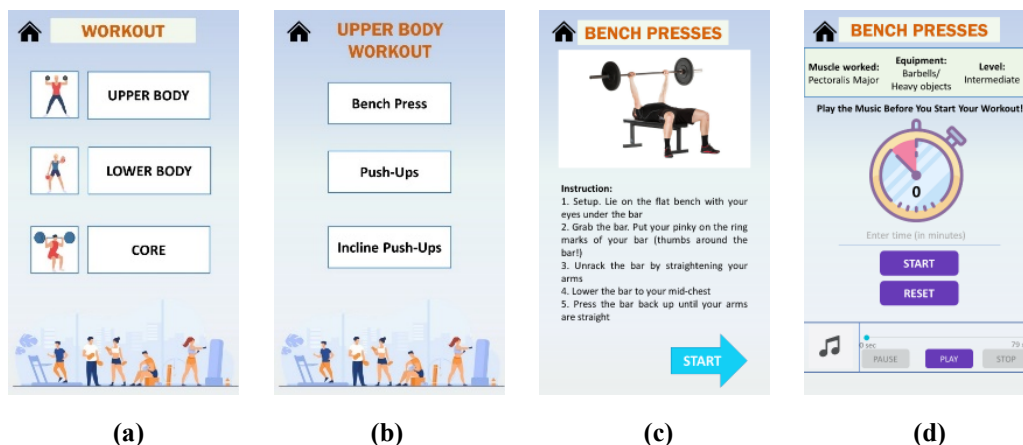


Figure 13: Interfaces of (a) Juices Module (b) Low Calorie Juice Menu (c) Recommendation Page (d) Recommendation Info

Figure 13(a) shows the Juices Module contains of some categories for users to select. In the Low Calorie Juice menu, users can choose one of the juices listed by reading the preparation time, servings and calories and navigate to the recipes in Figure 13(b). Figure 13(c) is Recommendation Page. Users can read the recommendation info as a reference before choosing the juice which they are going to drink in Figure 13(d).



**Figure 14: Interfaces of (a) Workout Module (b) Upper Body Workout (c) Workout Instruction (d) Timer and Music Player**

Figure 14(a) shows the interface of Workout Module. Users can select workout from the three categories which are Upper Body category, Lower Body category and Core category. If the Upper Body Category is being chose, users can select the workout in that category in Figure 14(b). Figure 14(c) shows the Workout Instruction interface that providing the GIF demonstration and instruction to guide users. In the timer and music player interface in Figure 14(d), users can read the text such as Muscle worked, Equipment and Workout Level at the top before starting their workout, assisting by timer and music player when they carry out workout.



**Figure 15: Statistic Module**

Figure 15 shows the interface of Statistic Module. Users can choose one of the categories such as Eat Clean, Juices and Workout to record their personal statistic.



**Figure 16: Interfaces of (a) Eat Clean Statistic Personal Details (b) Eat Clean Statistic (c) Eat Clean Statistic Report (d) Setting**

Figure 16(a) shows the Eat Clean Personal details Interface. User requires to fill in the weight, workout time, wake up time and sleeping time before navigating to the Statistic interface. Figure 16(b) is record eat clean statistic with plus button, assisting by notification button and percentage overview button. Figure 16(c) is the statistic report to view the remaining and target of eat clean with the summary graph whereas Figure 16(d) is interface that enable user to edit and update the info that had inserted previously after clicking the setting icon.



**Figure 17: Interfaces of (a) Juices Statistic (b) Workout Statistic**

Figure 17(a) shows the Juices Statistic Interface whereas Figure 17(b) shows Workout Statistic. User can record juices statistic and workout statistic with plus button with the assist of on or off notification button and percentage overview button.

### 3.4 Testing

The programming and compilation processes are completed during the testing phase. There are many other tasks included in the testing and coding process. It is critical to find and fix bugs and glitches. In the end of this phase, a complete application is fully developed. The APK file was generated. Testing is conducted to make sure that each feature in the application works properly. Alpha testing had been carried out to test the application by the developer, which the application is ready to use at the completion of development process which is functionality.

#### 3.4.1 Alpha Testing

Throughout the planning phase and before the project was finished, alpha testing was carried out. The design of the buttons is checked during alpha tests to ensure that the application works properly.

The Table 4 shows the results of alpha tests based on the features of every button used in the Nature Detox Mobile Application.

**Table 4: Results of alpha testing**

Modules	Test	Expected Result	Actual Result	Corrective Action
Sign In & Sign Up page	Sign In Button	Navigate to Home page (Modules).	Function well.	No need.
	Sign Up Button	Register an account.	Function well.	No need.
	Sign In link	Navigate to Sign In interface.	Function well.	No need.
	Sign Up link	Navigate to Sign Up interface.	Function well.	No need.
Info Page	Save Button	Save gender, height and weight.	Function well.	No need.
	Save Link	Navigate to Homepage.	Function well.	No need.
Homepage	Eat Clean Module	Navigate to Eat Clean module.	Function well.	No need.
	Juices Module	Navigate to Juices module.	Function well.	No need.
	Workout Module	Navigate to Workout module.	Function well.	No need.
Side Navigation Menu	Home Button	Navigate to Home page.	Function well.	No need.
	Eat Clean Button	Navigate to Eat Clean Module.	Function well.	No need.
	Juices Button	Navigate to Juices module.	Function well.	No need.
	Workout Button	Navigate to Workout module.	Function well.	No need.
	Statistic Button	Navigate to Statistic page.	Function well.	No need.
	About Us Button	Navigate to About Us page.	Function well.	No need.
	Edit Profile	Navigate to Edit Profile page.	Function well.	No need.
	Logout Button	Navigate to Sign In or Sign Up page.	Function well.	No need.
	Home Button	Navigate to following interface.	Function well.	No need.
	Back Button	Navigate to following interface.	Function well.	No need.
Eat Clean Module	All buttons related to the module	Navigate to following interface.	Function well.	No need.
	Home Button	Navigate to following interface.	Function well.	No need.
	Back Button	Navigate to following interface.	Function well.	No need.
	All buttons related to the module	Navigate to following interface.	Function well.	No need.
Juices Module	Home Button	Navigate to following interface.	Function well.	No need.
	Back Button	Navigate to following interface.	Function well.	No need.
	All buttons related to the module	Navigate to following interface.	Function well.	No need.

**Table 4: (continued)**

Modules	Test	Expected Result	Actual Result	Corrective Action
Workout Module	Home Button	Navigate to following interface.	Function well.	No need.
	Back Button	Navigate to following interface.	Function well.	No need.
	All buttons related to the module	Navigate to following interface.	Function well.	No need.

The functionality of buttons in Nature Detox Mobile Application has certain errors, as seen in Table 4, based on the results of alpha testing. The upload picture and save buttons in the Edit Profile Page are not working properly because they cannot save to the Firebase. As a result, corrective steps are taken to correct the errors found during alpha testing by saving the data.

### 3.5 Deployment

After the application had carried out correction based on the feedbacks and recommendations provided by target users, the new version of APK had been generated and released to the users.

#### 3.5.1 Building Nature Detox Mobile Application in Android Studio

This section will clarify about how to build an APK file of the application which displayed in Figure 18, Figure 19, and Figure 20. The figures will show the steps-by-steps process to generate the APK file of the application.

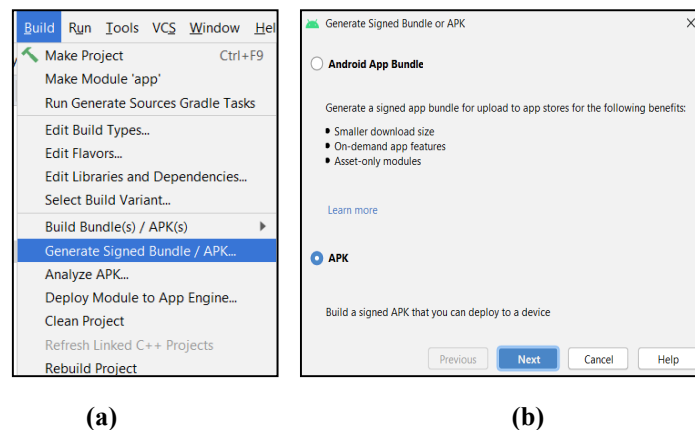
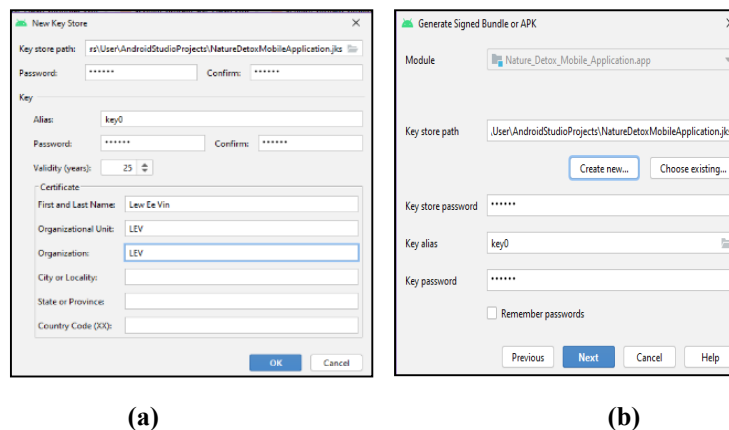
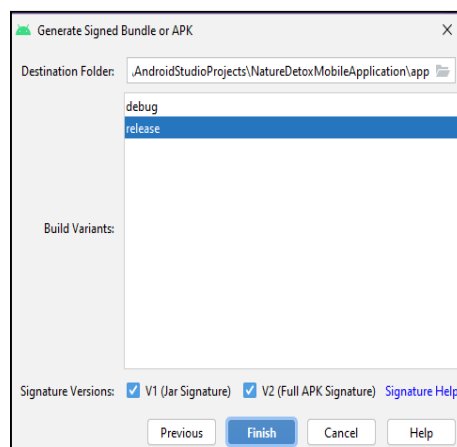
**Figure 18: Process of generating APK (a) Step 1 and (b) Step 2**

Figure 18 show the process of generating APK file. To create a Nature Detox Mobile Application APK file, go to Construct followed by Generate Signed Bundle or APK, and then choose the APK.



**Figure 19: Process of selecting key store file (a) Step 1 (b) Step 2**

Based on Figure 19(a) and (b), the creator must build a new location for the main store file and enter the password as well as other pertinent details such as first and last names.



**Figure 20: Release APK file**

Figure 20 depicts the final stage in the APK file release process. To create a complete APK file, select Release, Jar Signature, and Full Signature.

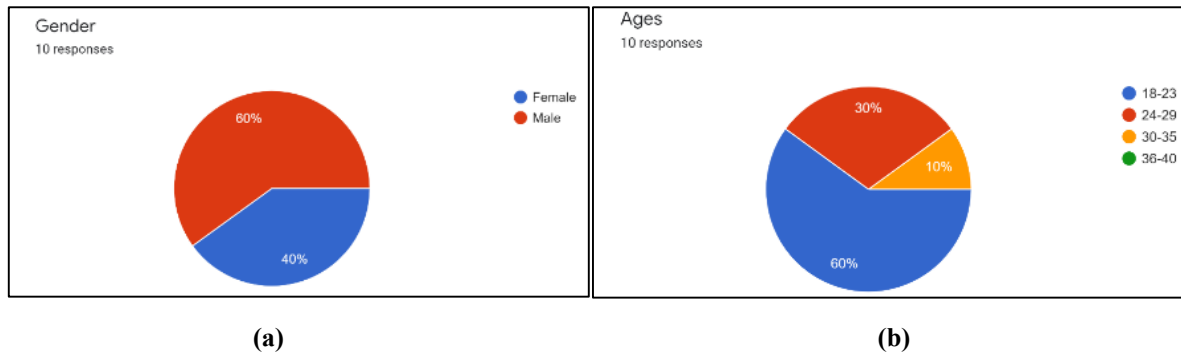
### 3.6 Review

Review phase is the last phase in AGILE methodology model. After releasing the APK to the general public, potential users aged between 18 to 40 years old were selected to test the application in Beta testing. Beta testing is the final stage of testing before a product is released to the general public which the user acceptance test had been carried out. Their feedbacks and recommendations will be carefully analyzed and this analysis will be further explained in the following section. In short, the iteration of AGILE methodology cycle for the whole application development process is once.

## 4. Results and Discussion

This section will analyze the results of the application specifically in beta testing, involving acceptance and functionality testing.

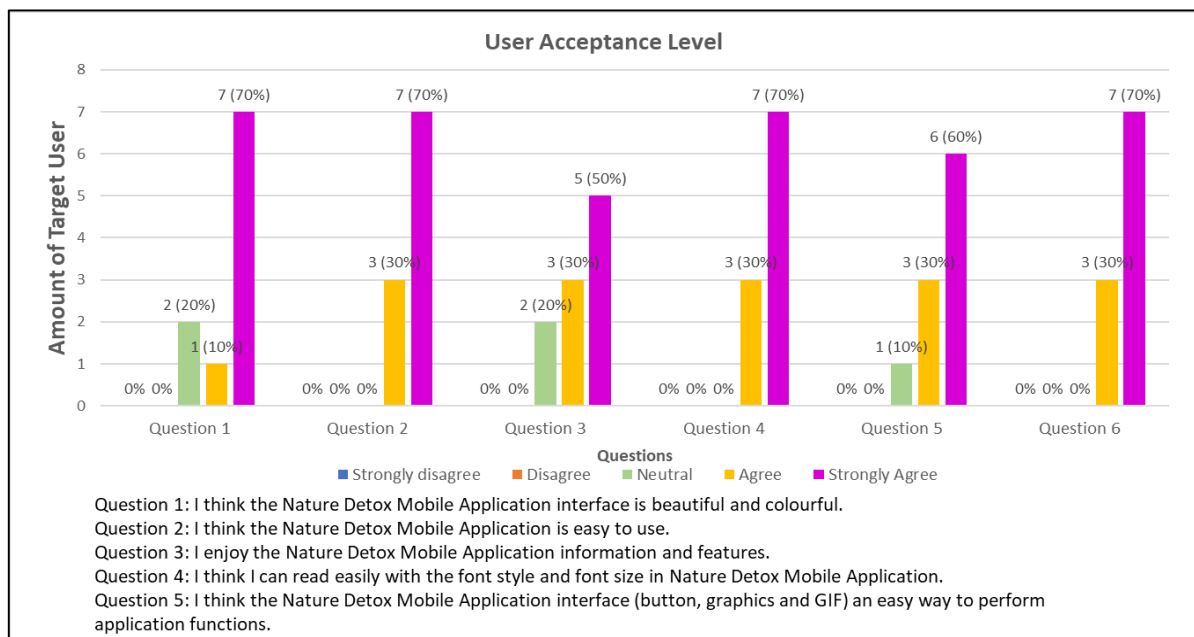
Beta testing was conducted with the participation of target users A set of questionnaires was created using Google Form to gather and interpret data from them. A total of ten users took part in the beta tests. Figure 21 (a) and (b) displays the gender analysis for the target user has been participated in this user acceptance test.



**Figure 21: Participation of target users based on (a) Gender analysis (b) Age analysis**

Based on the Figure 21(a), there are 10 respondents involve in the testing consisting 6 males and 4 females. The target users had tested all the modules in the Nature Detox Mobile Application. Figure 21(b) shows the age analysis. In the 10 respondents, majority respondents are 18 to 23 years old, followed by the respondents who aged 24 to 29 years old and 10% are respondents aged 30 to 35 years old.

This questionnaire is divided into two sections which are User Acceptance Test and Functionality Test. User acceptance test implements the system usability scale (SUS) which strongly disagree is equal to 1, disagree stands for 2, neutral is equal to 3, agree is equal to 4 and strongly agree is 5.



**Figure 22: User acceptance level analysis**

Based on the Figure 22, the user acceptance level contains of 6 questions. In Question 1, the majority respondents which is 70% strongly agree with the statement, followed by 10% who agree with that and 20% feel the interface is neutral. Question 2, 4 and 6 producing the same results: 70% respondents strongly agree and 30% agree with the statement given. For Question 3, there are 50% respondents chose strongly agree with the application information and features, 30% agree and 20% respondents neutral with the statement. Majority respondents select strongly agree, followed by 30% agree and another 10% select neutral in this statement. In this section, there are no respondents who choose for disagree and strongly disagree. In short, the user acceptance level is very high as there is no negative feedback from the respondents.

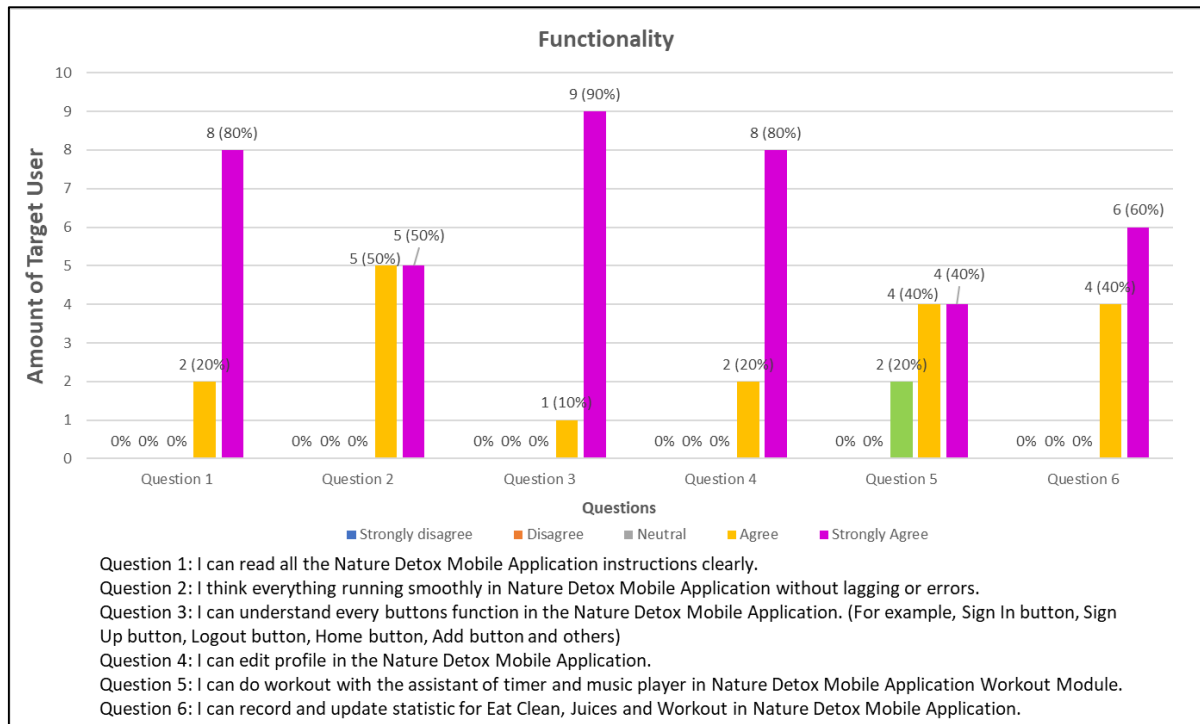
**Figure 23: Functionality analysis**

Figure 23 shows the functionality test results derived from the 6 questions. The same results are produced Question 1 and 2. Majority respondents 80% strongly agree with the statement, followed by 20% who agree with the statement. In Question 2, there are 50% respondents strongly agree and 50% agree that the application is running smoothly in their device. For the Question 3, 90% respondents strongly agree that they understand every button's function and another 10% select agree. There are 40% respondents chose strongly agree and 40% agree with the editing profile function, whereas 20% respondents neutral with the fifth statement as the timer and music player can assist user well when carrying out the workout. Majority respondents selected strongly agree which is 60%, followed by 40% chose for agree with Question 6. To conclude, the functionality of the application is performing well and receiving positive feedbacks from all respondents.

**Table 5: System Usability Scale**

Repondent	Question												Total marks
	1	2	3	4	5	6	7	8	9	10	11	12	
1	5	4	4	5	4	5	5	4	5	5	4	5	55
2	5	5	5	5	5	5	5	5	5	5	5	5	60
3	5	5	5	5	5	4	5	4	5	5	4	5	57
4	4	4	3	4	3	4	4	4	4	4	3	4	45
5	5	5	5	5	5	5	5	5	5	5	5	5	60
6	5	4	3	4	4	5	4	4	5	4	3	4	49
7	5	5	5	5	5	5	5	5	5	5	5	5	60
8	5	5	5	5	5	5	5	5	5	5	5	5	60
9	3	5	4	4	4	4	5	4	5	5	4	4	51
10	3	5	4	5	5	5	5	5	5	5	4	4	55
Total marks	45	47	43	47	45	47	48	45	49	48	42	46	552

$$\text{System Usability Scale} = \frac{\text{Total Marks}}{\text{Overall Total Marks}} \times 100\% \quad \text{Equation 1}$$

$$= \frac{552}{600} \times 100\% = 92\%$$

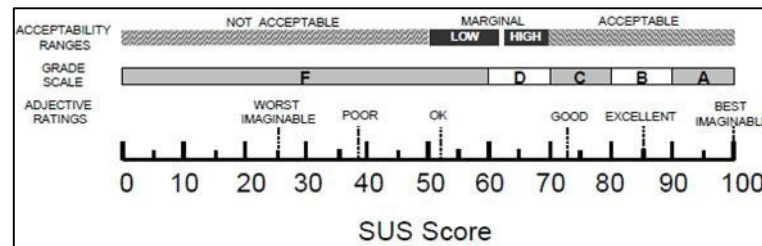


Figure 24: System Usability Scale [9]

In short, after analyzing and determining from the two sections which are User Acceptance Level and Functionality by using the system usability scale calculation shows in Equation 1, all testing responses were positive and acceptable which overall percentage is 92%.

## 5. Conclusion

In conclusion, Nature Detox Mobile Application has been successfully implemented and is suitable for everyone whose desire to live a healthy life by eating clean, drinking juices and exercising. The methodology used which is AGILE model acts as an assistant in this project to ensure that the project will be accomplished on time. All objectives have been achieved and further enhancement such as notifications with ringtone provided after the workout timer has ended will be carried out to offer better functionality and experience to user.

## Acknowledgement

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## Appendix A

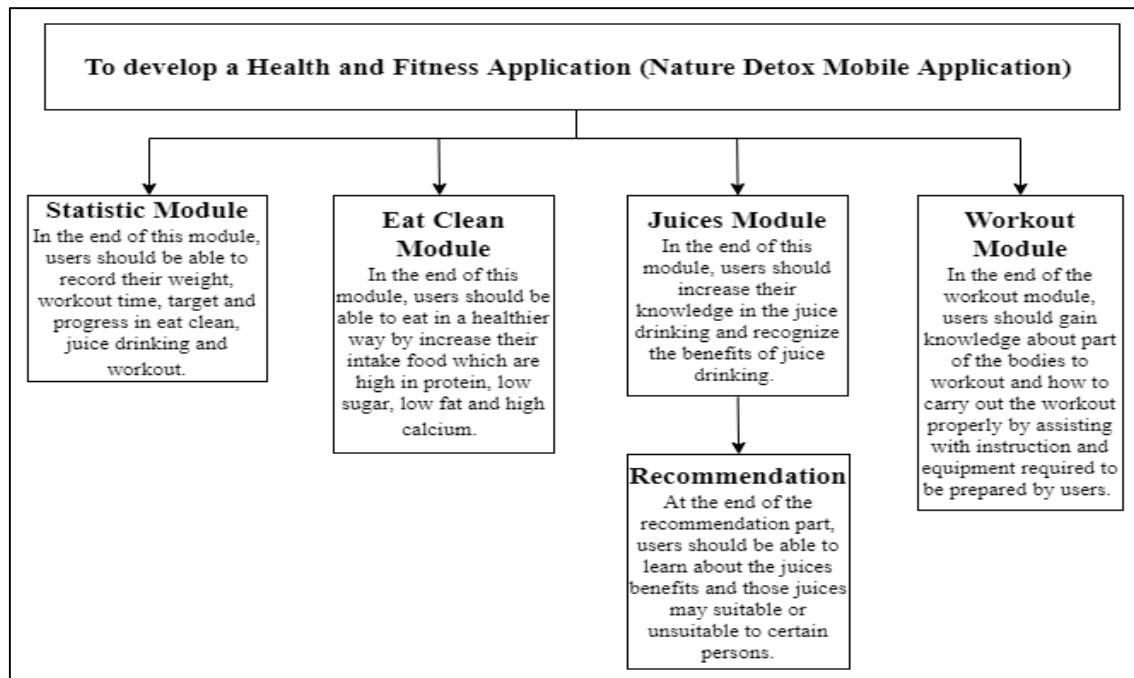


Figure 1: Content Structure diagram

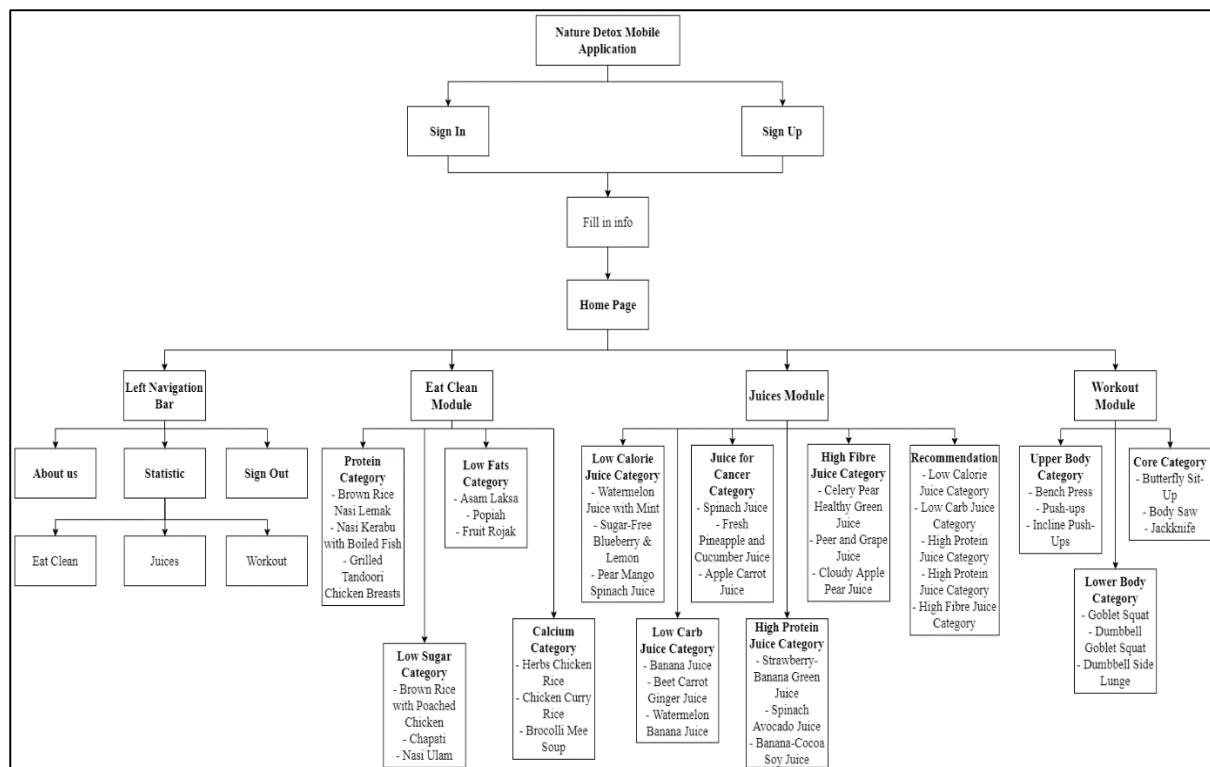


Figure 2: Application navigation diagram

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