UNIVERSITI TEKNOLOGI MARA

DietJourneyBuddy: A 2-WEEK WEIGHT LOSS MONITORING & TRACKING MOBILE APPLICATION

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ABSTRACT

This project developed a weight-loss journey with a monitoring and tracking mobile application called DietJourneyBuddy. The app helps people to monitor and manage user's weight every day towards weight lost journey. The objective of this project is to identify the user's requirements, to design and to develop the DietJourneyBuddy app. The features provided for the user in this mobile application including the monitoring and tracking mobile app. The app would track the user's weight and the app monitor the user's weight progress. This app also provided features for user to have change the target weight using default. Then, this application has limitations such as the app are only for single user and the app only covered the English version for the language of the app. The methodology used is Mobile Application Development Life Cycle (MADLC). It will be developed from the identification phase till the testing phase only. Testing is done using the system usability scale (SUS). In the future, this application can be used to monitor the eating behavior user take instead of monitoring their weight. This project primarily benefits the users who wants to lose their weight accordingly especially the members of gymnasium in UiTM Shah Alam who wants to lose their weight. Based on the user testing, all the functionalities in the mobile app functioning well when user anticipating in the app. According to the tester, the application is easy to use, look minimalist and the description to input something in the app was clear and user-friendly. The tester mentioned they satisfied with features to input and update the weight that was displayed in kilogram. For future recommendation, the sign-up would be much better by requesting user to input Gmail account so that the account can be recovered if user did not remember their password.

Keywords: Mobile Application Development Life Cycle, Weight-Loss Monitoring and Tracking, System Usability Scale.

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CHAPTER ONE

INTRODUCTION

1.1 Project Background

A healthy weight is a crucial component of overall health. Maintaining a healthy weight or losing weight is generally influenced by how much and what you eat. Exercise would be another way to maintain a healthy weight (Harvard Health Publishing, 2015). It is important to always comprehend the risks of obesity before attempting to maintain a healthier weight. Obesity is a disorder in which people develop excess body fat, keeping people at risk for several health issues. It is essential to maintain a healthy weight because excess fat will shorten life expectancy and increase the risk of other health complications ("What Is a Healthy Weight", 2020).

Being underweight is also harmful to one's health. The BMI and waist circumference are two screening instruments used to determine weight status concerning disease risk. BMI and waist circumference, on the other hand, are not diagnostic instruments for disease risk ("Assessing Your Weight", 2020).

Based on the statement, we need to monitor and track our weight accordingly and effectively so that we managed to get our normal BMI. Reduced energy consumption, increased energy expenditure, and therapeutic techniques such as target setting and self-monitoring are all common features of behavioral weight loss programs. Self-monitoring entails keeping track of one's weight and physical activity so that they are mindful of their current habits and always keep on track (Burke, Wang & Sevick, 2012).

Self-monitoring is a method to enhance understanding of existing and desired patterns in weight-loss initiatives. Self-monitoring technology, such as mobile phone applications, smart scales, and other wearable devices, is being incorporated into weight-loss services for both customers and health companies. According to the Centers for Disease Control and Prevention (2020), 36.5 percent of adults in the United States are obese, and $147 billion is spent annually on obesity-related medical costs. Therefore, identifying whether and how self-monitoring leads to weight loss is essential for providing a better population's health. (Painter, Ahmed, Hill, Kushner, Lindquist, Brunning & Margulies, 2017).

Next, eating healthy food and exercises are also important things on losing weight effectively. According to Kerr (2017), using a combination of exercise and a balanced diet to lose weight is more beneficial than relying solely on calorie restriction. Certain illness may be

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