GO SKINNY!: MOBILE HEALTHY DIET APPLICATION

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SESI PENGAJIAN: *2015*
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DEDICATION

This thesis is dedicated to my parents, family, and friends who have supported me all the way since the beginning of my studies in UTeM.

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ABSTRACT

The GO Skinny!: Mobile Healthy Diet Application is a mobile application which helps people to follow the diet plan given by this application and to monitor their weight-loss per day. The main focus of this application is meals management and weight management. This application is applying a low calorie diet plan. Based on research findings, such healthy diet applications mHealth have been used years ago by researchers to conduct a medical research study. In 2015, there were many healthy diet applications released in the App Store and Google Store because the number of mobile phones users that abrupted drastically. Most dieters were not able to consistently follow the traditional diet method compared to using diet applications. Preliminary data gathered shown that users prefer to use diet applications to start their diet plan. To ensure the success of this project, the development of this application was done phased by using phase adapted Generative Research methodology starting from requirement gathering and analysis and followed by design and development. By using Intel XDK IoT Edition, a multi platform mobile application development software, this project comes with simple 2 in 1 application that is easy to use and manage. A healthy application concept is applied by producing a clean and tidy interface.

ABSTRAK

GO Skinny! (aplikasi diet) adalah sebuah aplikasi mudah alih yang membantu penggunanya untuk mengikuti pelan diet yang disediakan oleh aplikasi ini dan untuk memantau berat badan mereka setiap hari. Fokus utama aplikasi ini adalah pengurusan makanan dan pengurusan berat badan. Aplikasi ini menggunakan pelan diet kalori yang rendah. Berdasarkan hasil kajian, aplikasi diet sihat seperti *mHealth*telah lama digunakan oleh penyelidik-penyelidik untuk menjalankan kajian penyelidikan perubatan. Pada tahun 2015, terdapat banyak aplikasi diet sihat yang telah dilancarkan di*App Store* and *Google Store*kerana bilangan pengguna telefon bimbit telah meningkat secara mendadak. Kebanyakan yang berdiettidak mampu untuk konsisten dalam mengikuti kaedah diet tradisional berbanding dengan menggunakan applikasi diet. Data awal yang diperolehi menunjukkan bahawa pengguna lebih suka menggunakan aplikasi diet sihat untuk memulakan pelan diet mereka. Bagi memastikan projek ini berjaya, pembangunan aplikasi ini dilakukan berfasa yang bersesuai dengan menggunakan fasa metodologi kajian generatif bermula daripada pengumpulan keperluan dan analisa dan diikuti dengan reka bentuk dan pembangunan. Dengan menggunakan perisian Intel XDK IoT *Edition* iaitu perisian pembangunan untuk landasan pelbagai aplikasi, projek ini didatangkan dengan aplikasi mudah 2 dalam 1 yang mudah untuk digunakan dan diuruskan. Konsep aplikasi kesihatan digunakan dengan menghasilkan antara muka yang bersih dan kemas.

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LIST OF ABBREVIATIONS

BMI	-	Body Mass Index
CPU	-	Central Processing Unit
CSS	-	Cascading Style Sheets
CS5	-	Creative Suite 5
DIMA	-	Dietary Intake Monitoring Application
ERD	-	Entity-Relationship Diagram
HDD	-	Hard Disk Drive
HTML	-	HyperText Markup Language
IoT	-	Internet of Things
ITU	-	Intention to Use
MITC	-	Melaka International Trade Centre
OS	-	Operating System
PEOU	-	Perceived Ease of Use
PHP	-	Personal Home Page
PNG	-	Portable Network Graphics
PoI	-	Production of Interface
PSM	-	Projek Sarjana Muda
PU	-	Perceived Usefulness

Q1	-	Question 1
Q2	-	Question 2
Q3	-	Question 3
Q4	-	Question 4
Q5	-	Question 5
Q6	-	Question 6
RAM	-	Random Access Memory
SQL	-	Structured Query Language
UTeM	-	Universiti Teknikal Malaysia Melaka
XDK	-	XML Developer's Kit

CHAPTER I

INTRODUCTION

1.1 Introduction

Mobile phones have been shown to be useful additions to health programs. Healthy eating interventions that use behaviour change techniques such as self-monitoring had been associated with stronger effects to lose weight. Mobile applications can make dietary self-monitoring easy to use, manage, and maintain.

The project that will develop is Go Skinny!: Mobile Healthy Diet Application with the Android platform, it helps people to follow the diet plan given by this application and to monitoring their weight-loss per day. This application using the low carbohydrate diet plan.

Go Skinny!: Mobile Healthy Diet Application have three phases which is first phase included with duration, guidelines, and suggestions meal. Then the second and third phase included with duration, guidelines, and suggestions meal for breakfast, lunch, and dinner. Dieters can also monitor their weight every day because it is included with weight diary which available to insert their weight in the morning, afternoon, and total weight-loss.

Dieters with a busy life are prefer to use this application because it is easy and quick to find out what the meal they can eat in a day. They also got a spirit to lose weight by saving their weight-loss every day.

The target user of this application is young adults (aged 18 to 40) who got the high risk for gaining weight. It is the effective and easy-to-follow diet plan but the main key to this diet's success is spirit, focus, and discipline. Furthermore, this application are much better by comparing it with traditional diet counselling and entry methods.

1.2 Problem Statements

The problem that led to the development of this project is the dieters are difficult to plan what they should or should not eat in a day, frequently skip their daily meals, and did not taking care their weight. Most of dieters do not reached the target or failed to loss their weight due to not had the proper eating schedule and did not monitor their daily weight-loss. It is very important to get the ideal weight.

By designing an mobile application for healthy diet is just one step of an extensive development process. Choosing and implementing practical applications is preceded by needs assessment and definition of objectives for the intervention in terms of healthy diet outcomes and behavioural outcomes.

1.3 Objective

This project embarks on the following objectives:

i) To study user experience and mobile experience in dieting.
ii) To design and develop mobile healthy diet applications based on the findings.
iii) To conduct usability test for the mobile healthy diet applications.

1.4 Scope

Go Skinny!: Mobile Healthy Diet Application is the Android platform application which facilitate the users to start the low carbohydrate diet plan in 63 days. The aspects focused on following the daily servings, diet guidelines, and weight-loss to users which is young adults (aged 18 to 40) who got the high risk for gaining weight. The research domain is individuals with different location, culture, and value.

1.5 Project Significance

There are three significances of this project carries:

i) Traditional diet method
   - To prove when they are using the diet application, they are easy to refer back the process and information every time they needed in everywhere they are. No need to bring anything, just looking at their mobile phone.