POSTNATAL CARE APPLICATION

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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This report is submitted in partial fulfillment of the requirement for the Bachelor of Computer Science (Software Development)

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MELAKA MALAYSIA

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I hereby declare that this project report entitled

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DEDICATION

I would like to thank and dedicate this Final Year Project (FYP) to all those who had given me the supported, inspiration and spirit to complete this project and especially to my beloved parent, my honorable supervisor Datin Nurazlina Binti Sanusi and my friends.

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ABSTRACT

Postnatal Care Application is an android application that provide postnatal care information and guideline for women and their newborn baby. Postnatal Care Application created to identify the essential care that every women and their baby should receive according the best evidence available in the first 6 until 8 weeks after births. Postnatal Care Application will provide personalized daily tracking for showing user daily and weekly recovery, helping user to determine the status of postnatal recovery and for user postnatal recovery time. Besides that, this application also provide suggestion meal function for mother. This function will generalize all the nutrition meals and suggest the suitable nutrition meals for new mother. Moreover, this application will provide emotional support such as useful information including postnatal tips to keep users smiling every day and health information.

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ABSTRAK

Postnatal Care Application adalah aplikasi android yang menyediakan maklumat dan memberi garis panduan penjagaan untuk wanita selepas bersalin dan bayi yang baru dilahirkan. *Postnatal Care Application* diciptakan untuk mengenalpasti penjagaan kepentingan setiap wanita dan bayi dalam 6 hingga 8 minggu pertama selepas kelahiran. Aplikasi *Postnatal Care Application* akan menyediakan penjejakan harian peribadi untuk menunjukkan pemulihan setiap hari dan mingguan, membantu pengguna untuk menentukan status pemulihan selepas bersalin. Selain itu, aplikasi ini juga menyediakan fungsi recipe cadangan untuk ibu. Fungsi ini akan memberi wanita semua recipe yang sihat dan mencadangkan pemakanan yang sesuai untuk ibu baru. Selain itu, aplikasi ini akan memberikan sokongan emosi seperti maklumat kesihatan bayi selepas bersalin untuk memastikan pengguna tersenyum setiap hari dan maklumat kesihatan.

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LIST OF ABBREVIATION

UTeM – Univerisiti Teknikal Malaysia Melaka

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CHAPTER I

INTRODUCTION

1.0 Introduction

In this era, mobile technology have developed globally which bring the conveniences to people around the world. According to one of Malaysia's outstanding online news portal had published an article reporting that 16% increased mobile phones owns by Malaysia's population which from 47% in 2012 to 63% in 2013 while tablet penetration has almost three-fold increased from 14% to 39% (Malaysia's smartphone penetration rises by 16%, 2013).

In addition, according to a recent survey conducted by McCann World Group, Malaysians are also considered one of the highest users of smartphone users, averaging 6.4 hours per week, accessing the Internet through their devices (With 140% mobile penetration, Malaysia has 10M smartphone users, 2014). Due to this fact, Ministry of Healthy Malaysia is seeking to use the potential of mobile technology to provide information on postnatal care to restore women's physical and mental health.

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The title of this project is Postnatal Care Application. Postnatal Care Application is an android native base application that provide the information services for public especially postpartum women. The purpose of this project is to provide useful information or guideline for postpartum women within 6 weeks period after delivery. This project consists of two parts, the first part is to study the title project based on research in order to provide a useful information and application for postpartum women. The second part is to expose the android application development which include development code, tools and design.

The project focuses on three main modules, which are the weekly tracking module, the dietary recommendation module and the confinement center module. The weekly tracking module is used to track user daily and weekly recovery and to help users determine the status of postpartum recovery. The dietary recommendation module is used to provide healthy dietary recommendations or dietary recipes for postpartum women. Postpartum women can refer to this module to know what is suitable for their post-meal delivery. The confinement center module provides information and location confinement center for postpartum women to need the massage service and who more believe in traditional postnatal care.

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The goal of the project is to bring convenience and knowledge to postpartum women and husbands. Most postpartum women need to rest or stay at home after childbirth. Some guidance provided by the doctor on postnatal care must be followed by postpartum women. However, the doctor may not be able to keep track on them and give them feedback immediately. Thus, this application is not only provided to postpartum women, but also encourages their husbands to track their wives' health at any place and in any time, their wishes. This project application can also provide some help in saving time, improve women's health and reduce costs.

In short, this application is designed to facilitate and provide information to postpartum women and raise their awareness of self-care. This is also an alternative medium that can help postpartum women reduce the risk of mental depression at the

postnatal stage. Based on market research, the development of a convincing application that can bring convenience to the target user. At the end of this project, the app will be evaluated for persuasiveness.

1.2 Problem Statement

The project problem statement is limited guide and information in postnatal care. Doctors may not be able to track the woman and provide their advice immediately. Some of the wrong method can cause women to have transient psychological symptoms after 10 -14 days gives the births. After delivery, the women begin to experience the psychology and physiological changes of her body. Women who do not have this experience are hard to track their weekly recovery and determine their body changes in postpartum.

Next, consumption of adequate of balance and health diet during postnatal care stages are required for body recovery after childbirth. However, there are many women who are not aware of the importance of postpartum nutrition. Thus, this may indirectly affect their physical recovery. In the postpartum stage of nutritional imbalance or inappropriate diet may lead to female body aging. Therefore, this application may suggest nutritious meals for women to maintain their body diet.

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In addition, massage therapy is also very useful for women after childbirth. Most home cultures will use this massage therapy to relieve muscle cramps or fatigue and improve women's sleep quality. However, improper massage therapy can cause women to be injured and uncomfortable. Some of the wrong ways in massage therapy can lead to a woman's risk. Therefore, the application can provide reliable massage confinement center store contact number and store location for women.

1.3 Objective

The project objectives are as follows:

- **To provide personalized daily tracking for showing user daily and weekly recovery, helping user to determine the status of postnatal recovery and for user postnatal recovery time.**

  With the popularity of smart phone consumers, smart phones become a necessity in our lives. Most human activities can be performed through a smartphone. In this regard, the smartphone serves as a good platform to track women's weekly recovery and help them determine the physical condition in postpartum recovery.

- **To suggest the suitable meal nutrition or dietary recommendation for woman in postnatal stage.**

  Poor dietary or dietary nutrition may affect the recovery of the woman's body after birth. Thus, this application will provide a balanced dietary consumption information to ensure that women have a healthy life after birth.

- **To provide massage treatment contact number for woman in postnatal stage.**

  Massage treatment contact number and store location are provided to allow women to find their massage therapist for massage treatment, so that let woman relax their mood after strenuous delivery.

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1.4 Project Scope

The project scope is including the important functionality to provide postnatal information for woman after childbirth.

1.4.1 Target audience

This project is for women after childbirth, providing them with useful information during postnatal stages. According to the World Health Organization (WHO) estimates, in worldwide, about 529,000 maternal deaths, and with an average 400/100 000 live births maternal mortality rate, most of these deaths (99%) occur in developing countries, and the vast majority of these deaths are preventable. Furthermore, according the article wrote by Hematram Yadav, Malaysia is one of the developing countries that can prevent such maternal deaths from increasing. Hence, this application will serve as an alternative for the postpartum woman to keep track on their weekly recovery, meal nutrition and learn the massage therapy information.

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1.4.2 Module/ Function

- **Postnatal Care Date Tracking**

  This module is created to track women's weekly recovery and helps users determine their status in the postnatal care phase. This module will track the progress of postpartum health care for women. It will count down the women's weekly recovery and the status of women currently facing which of the stage.