

UNIVERSITI TEKNOLOGI MARA

SKIN ANALYZER: SKIN ANALYZER MOBILE APPLICATION

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ABSTRACT

Skincare is important to maintain regularly by using the right products. However, each skin type has different requirements for ingredients in skincare products. The large number of skincare products available in the market has also caused consumers to feel confused about choosing a product that suits their skin type. Therefore, this project develops a mobile application that helps users find suitable skincare products based on their skin condition. The objectives of this project are to identify the user requirements, design, and develop the Skin Analyzer: Skin Analyzer Mobile Application. The scope of this project focuses on four skin types, which are normal, combination, dry, and oily, as well as the product brand focus on CeraVe, Tatcha, SKII, Laneige, Caudalie, Neutrogena, Cetaphil, Hadalabo, Aveeno, and Clinique. For the development, the project uses the Mobile Application Development Life Cycle (MADLC) methodology approach up to the testing phase. The features and functions of these apps are user registration, updating and deleting user profiles, selecting skin type, screening skin analysis questionnaire, recommending skincare products based on skin type, and checking the halal status of the product. The System Usability Scale (SUS) has been used in this project. There are 10 general users who took part in SUS after they completed testing of the application. For future recommendations, it is proposed to enhance the recommender features through the Collaborative Filtering (CF) technique and face recognition. This project is also expected to be available for iOS in the future, which means more users will benefit from this mobile application.

Keywords: skincare, skin type, recommender, Mobile Application Development Life Cycle (MADLC)

TABLE OF CONTENTS

COVER PAGE	i
SUPERVISOR APPROVAL	i
STUDENT DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
Chapter 1.....	1
1.1 PROJECT BACKGROUND	1
1.2 PROBLEM STATEMENT	2
1.3 PROJECT AIM	4
1.4 PROJECT OBJECTIVES.....	4
1.5 PROJECT SCOPE AND LIMITATIONS.....	4
1.6 PROJECT SIGNIFICANCE.....	6
1.7 CHAPTER SUMMARY	7
Chapter 2.....	8
2.1 CHAPTER OVERVIEW	8
2.2 INTRODUCTION TO SKINCARE	8
2.2.1 TYPES OF SKIN.....	8
2.2.2 INGREDIENTS FOR EACH SKIN TYPE.....	9
2.2.3 EXAMPLE OF SKINCARE PRODUCTS	11
2.2.4 IMPORTANCE OF SKINCARE RODUCTS AND ITS USAGE	11
2.3 INTRODUCTION TO MOBILE APPLICATION TECHNOLOGY.....	12
2.3.1 TYPES OF MOBILE APPLICATION	13
2.3.2 MOBILE OPERATING SYSTEM.....	14
2.3.3 MOBILE APPLICATION DEVELOPMENT TOOLS	15
2.4 DATABASE MANAGEMENT SYSTEM (DBMS).....	15
2.4.1 TYPES OF DBMS.....	16
2.4.2 TYPE OF DATABASE SERVER	17
2.5 MOBILE TECHNOLOGY FEATURES AND FUNCTIONS	18
2.5.1 USER REGISTRATION	18
2.5.2 QUESTIONNAIRE ANALYSIS	18

CHAPTER 1

INTRODUCTION

1.1 PROJECT BACKGROUND

Skin is the body's largest organ and covers the entire body. It serves as a protective shield against heat, light, injury, infection and can regulate body temperature. Problems with the facial skin such as acne, blackheads, open pores, and redness due to dry skin are all things that no one wants on their face. According to (Katherine Brind'Amour, 2016), the symptoms and severity of skin disorders are distinct and can be temporary or permanent. It can be painful or not painful. Some are due to conditions, while others may be due to genetics. However, there are several factors that contribute to the problem of facial skin. One of them is the lack of knowledge about suitable skincare products for facial skin types. According to (Meta, 2018), 37% of facial skincare shoppers stated they use a product from the Facebook family of apps to discover new products. This indicates that several consumers still require guidance in finding appropriate products to begin using skincare based on their skin type. Next, women who do not seek the advice of a skincare specialist, such as a dermatologist or licenced esthetician, may use the wrong products, which may make the condition worse.

Besides, another problem with facial skin is choosing the proper active ingredients based on skin conditions. It is advisable to invest in goods that contain active compounds that have the most promising research behind them (Sarah Jacoby, 2020). People need to remember that, even though product ingredient names can be confusing, it is still a good idea to spend some time learning about each ingredient and its potential consequences before purchasing a product. This will assist customers in making well-informed decisions about which product to use and how to achieve the desired result (GlobalSpa, 2019).