PKM-KI PROPOSAL "SkinScan" EARLY DETECTION APPLICATION FOR SKIN DISEASES ON SMARTPHONE CAMERAS



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JURUSAN SISTEM INFORMASI UNIVERSITAS ANDALAS TAHUN 2024

PROLOGUE

All praise be to Allah SWT for granting us the ease and ability to complete this proposal. Without His assistance, it would have been impossible to accomplish this report satisfactorily. May blessings and peace be upon our beloved Prophet Muhammad SAW, whose intercession we eagerly anticipate in the afterlife.

The author extends heartfelt gratitude to Allah SWT for the numerous blessings of health, both physical and mental, which enabled the completion of this PKM-KI proposal. The proposal focuses on the creation of the "SkinScan" application, which can detect skin diseases using a smartphone camera.

The author acknowledges that this proposal is far from perfect and may contain several mistakes and shortcomings. Therefore, the author welcomes constructive criticism and suggestions from readers to enhance the quality of this proposal. The author sincerely apologizes for any errors found within this document. It is hoped that this report will be beneficial to all, especially to us.

Padang, June 19th 2024

Author

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CHAPTER I

INTRODUCTION

1.1 Background

Skin health is very important for the overall health of the human body because the skin is the largest organ that functions as a protector for the body from various external factors, such as bacteria, chemicals and ultraviolet rays. In addition, various skin diseases, such as dermatitis, psoriasis, eczema, and skin cancer, can affect the function and appearance of the skin.

Skin diseases are very common in Indonesia. According to data from the Ministry of Health, skin diseases are one of the most common diseases suffered by people. and some of them can cause death. According to the world health ranking, skin disease deaths in Indonesia reached 3,734 or 0.22% of total deaths. Skin health is still very limited, especially in remote areas. Apart from that, many people don't know the early signs of skin disease, and many people ignore it because it's just a skin problem, which often results in delayed treatment.

Significant advances in information and communication technology have an impact on various aspects of life, including the health sector. The use of mobile-based application technology can help improve access and quality of health services, including detecting skin diseases early.

The SkinScan application that we offer is a technology-based innovation that aims to help people find and identify symptoms of skin diseases independently. Using image processing technology and artificial intelligence (AI), the app can analyze images of a user's skin and provide information about the type of skin disease they

may have, as well as recommendations on what actions they should take afterward.

This application is expected to increase public awareness about the importance of skin health and encourage better skin care, because it is equipped with features for early detection of skin diseases, education about skin health, how to prevent skin diseases, and direct consultation with a dermatologist. Apart from that, this application can provide information quickly, is easy to access, and can be used anytime and anywhere.

Considering that the aim of the Student Creativity Program (PKM) is to increase student creativity and innovation to solve problems in society, PKM is the ideal forum to realize this idea. Through this program, we are committed to producing products that are innovative and useful for improving the quality of health of the Indonesian people.

With this background, we submitted a proposal to create a SkinScan application as part of the Student Creativity Program, with the hope of making a positive contribution to the field of skin health and health technology in Indonesia

1.2 Root Cause

Skin problems are a common concern among people of all ages, and students are no exception. So the best solution is the SkinScan application which helps in solving it. Therefore, the root of the problem in making this application is:

- 1. What is the right solution for skin problems that are common today?
- 2. What is the process for creating the SkinScan application?
- 3. How effective is the SkinScan application and how does the application work?
- 4. What are the steps in overcoming problems in launching the application?

1.3 Objective

Based on the root cause above, here are some of the objectives of launching the SkinScan application:

1. Building technology-based solutions to address the most common skin concerns:

The goal is to discover and develop accurate image recognition technology to analyze various types of common skin problems. This achievement will improve the accuracy of the SkinScan application so that users can independently discover any skin problems they may have.

2. Build user-friendly and user-friendly applications:

This goal is to ensure wider accessibility of the SkinScan app and encourage people to actively monitor their skin health. This goal is to create a simple and easy to understand user interface and experience for users from various backgrounds.

3. Helps the SkinScan app find skin problems:

This objective concentrates on the construction and development of image recognition algorithms used in applications.

Over time, data collection and machine learning (ML) will improve the accuracy of the SkinScan application in detecting various skin problems.

4. Help customers choose the right skin care:

The goal is to develop features that allow users to connect with dermatologists or get information about skin care that suits their skin condition. This will ensure that users can take appropriate action to address skin concerns identified through the SkinScan app.

5. Address technical and operational issues that arise during the launch and maintenance of the SkinScan app:

The goal is to create a strategy that allows for smooth launch, operation, and maintenance of the SkinScan application.

1.4 Benefit

The implementation of a skin scan application can offer a multitude of benefits, addressing various aspects of skin health and well-being. Here's a comprehensive overview of the potential benefits:

- 1. **Early detection of skin problems:** The application can facilitate early identification of potential skin problems, enabling timely treatment and prevention of complications.
- 2. **Increasing awareness of the importance of maintaining healthy skin:** through the educational features provided we can increase public awareness of maintaining healthy skin.
- 3. **Reduced treatment costs:** Early detection and treatment can minimize the need for expensive medical interventions.
- 4. **Improved access to dermatology care:** Bridging the gap between individuals and dermatologists, especially for those in remote areas or with limited healthcare access.
- 5. **Effective and flexible use:** the application can be used anywhere and at any time so as to reduce obstacles in the treatment process

1.5 Output

The expected output from this activity is as follows:

1. Functional Products (4th Month)

The creation of the "Skinskan" application based on mobile apps which can be tested and implemented as a quick solution to help users recognize types of skin diseases based on symptoms entered or photographed by the user.

2. Progress Report (3rd Month)

The progress report contains several stages of activities ranging from initial planning to evaluation and refinement of the application or design.

3. Final Report (4th Month)

The final report contains the entire series of PKM-KI activities and the results achieved over time.

4. Patent Draft (4th Month)

Patent rights are intended to obtain legal protection for any intellectual work in the field of technology, so that the ownership rights of the patent holder are guaranteed.

5. Social Media Accounts

The social media accounts used in this activity are Instagram @Scinscan and Youtube Skinscan

CHAPTER II

LITERATURE REVIEW

In this chapter, we will describe the existing solutions through several articles in internet media. After that, it's continued with a comparison of how existing services are with the services that will be made.

2.1 Similar Solutions That Have Been Made

We have researched several current solutions using technology to detect skin diseases. Some of these technologies are as follows:

2.1.1 SkinVision App

SkinVision is an application designed to detect skin cancer early. This application uses image technology and AI algorithms to analyze skin images and detect signs of skin cancer accurately and precisely. Users can photograph suspicious skin areas and get analysis results in seconds. This application provides a risk assessment and suggestions for next steps, whether to consult a doctor or not. Apart from that, SkinVision also provides skin health guides and reminders for regular check-ups.

2.1.2 DermAssist App by Google

DermAssist App by Google is a skin health application developed by Google, designed to help users identify and manage various skin conditions. The app uses artificial intelligence (AI) to analyze skin images and provide potential diagnoses. Users can take photos of problem skin areas such as rashes, moles or lesions, then the application will analyze the image and provide a possible diagnosis based on the symptoms the user input. DermAssist also provides recommendations for next steps, such as self-care advice, treatments available at pharmacies, or advice to consult a dermatologist. Additionally, the app provides educational resources on skin health, helping users understand more about various skin conditions, prevention tips, and when to consult a dermatologist. DermAssist also ensures the privacy and security of user data, by storing image and health information securely and only used for diagnostic purposes.

2.1.3 Miiskin App

Milskin is an application designed to help users monitor changes in their skin over time. This application allows users to take photos of certain areas of skin and compare them with previous photos to see any changes that may occur, such as changes in moles or other skin spots. Milskin uses image matching

technology to help detect changes that could signal skin health problems. Apart from that, this application is also equipped with a reminder feature to carry out routine skin checks, so that users can be more active in monitoring their skin condition. Miiskin is a useful tool for those who want to self-monitor their skin health, by making it easy to manage and analyze changes that may occur in the skin periodically.

2.2 Supporting Technology

In creating this application, supporting technology is needed which can be explained as follows.

2.2.1 AI Visual Input

AI Visual Input technology refers to the use of artificial intelligence (AI) to analyze and understand images taken by devices such as smartphone cameras. This technology creates conditions where computers can "see" and make decisions based on what they see, similar to how humans use their vision to identify objects, recognize patterns, and make decisions.

In the "SkinScan" application for skin disease detection, AI visual input is used to take a picture of the skin area you want to examine using a smartphone camera, image processing to improve quality and prepare for analysis, analyze the image to detect signs of skin disease, identify the type of disease, provide related symptoms, displays analysis results, provides information about diseases, symptoms and how to prevent the disease.

2.2.2 OpenCV (Open Source Computer Vision Library)

OpenCV is used for image preprocessing, such as improving image quality, removing noise, and performing skin segmentation before further analysis by the AI model. Its use is explained as follows.

- 1. Image Preprocessing.
 - Improves the quality of images taken by users, such as reducing noise and increasing contrast, so that skin features are easier to detect.
- 2. Skin Segmentation.
 - Identify and separate areas of skin from the image background, which is critical for analysis to focus on relevant areas only.
- 3. Feature Detection.
 - Detect specific features of the skin, such as discoloration, spots, or certain patterns that could be an early indication of skin disease.
- 4. Geometry Analysis.
 - Measuring and analyzing the shape and size of the affected skin area helps in identifying patterns consistent with a specific medical condition.

By using OpenCV, the "SkinScan" application can provide more accurate and efficient image analysis, maximize the ability of early detection of skin diseases and provide relevant information to users.

2.2.3 YouTube API (Application Programming Interface)

Integrates videos from YouTube into the application to provide interactive video content on various skin diseases. Using the YouTube API also reduces storage and bandwidth requirements.

2.3 Application Design

The application that will be designed is an application that detects skin images that users complain about which are taken via cellphone cameras and recognizes and analyzes the most relevant diseases according to the images and then converts them into information about diagnoses, symptoms, images, informative videos, ways to prevent and further treatment.

2.4 Application Comparison

Feature	SkinVision App	DermAssist App by Google	Miiskin App	SkinScan
Multiple languages	X	V	X	V
Interactive videos and electronic guidebooks	X	X	X	V
Detect all skin problems	V	V	V	V
Real-time medical consultations with doctors	X	X	X	V
Multi platform	X	V	V	V
Security	V	V	V	V
Low bandwidth usage	X	V	V	V

CHAPTER III

IMPLEMENTATION

3.1 Product Functional Making

3.1.1 Understanding The Problem

- a. Distributing Questionnaires to Dermatologists and Users: We will distribute questionnaires to dermatologists and potential users to understand their experiences and challenges in diagnosing and managing skin diseases. These questionnaires will be designed to gather in-depth information about their experiences, the challenges they face, and the features they expect from the SkinScan application.
- b. Analyzing Challenges and Obstacles: The results of the questionnaires will be analyzed to identify the main challenges faced by users and healthcare professionals in diagnosing skin diseases. This analysis will help us understand the core issues that the SkinScan application needs to address.
- c. Identifying User Needs and Preferences: Based on the questionnaires, we will collect detailed information about the specific needs and preferences of our target users. This includes understanding their expectations, desired features, and usability requirements for the skin health application.

3.1.2 Finding Innovative Product Ideas

- a. Brainstorming with the Development Team: We will hold brainstorming sessions with our development team to generate innovative ideas for the SkinScan app. These sessions will focus on identifying new features and solutions that can enhance the accuracy, accessibility, and user experience of the application.
- b. Considering New Solutions and Features: We will explore new solutions and features not currently available in similar applications. This includes advanced AI algorithms for more accurate diagnosis, interactive educational content, and real-time consultation capabilities.
- c. Reviewing Similar Applications and Latest Technologies: We will conduct a comprehensive review of existing skin health applications and the latest technologies in AI and image processing. This will help us identify best practices and ensure our app provides added value and competitive advantages.

3.1.3 Define Application Design Specifications

- a. Determine Technical Specifications: We will define the technical specifications for the SkinScan application, including the platforms (iOS, Android) and programming languages (such as Python for AI algorithms and Swift/Java for mobile development) that will be used.
- b. Designing the User Interface: Our team will design a user interface that is user-friendly and accessible. This design will prioritize clear visual elements, intuitive navigation, and high contrast to ensure usability for all users, including those with visual impairments.
- c. Defining Core Features: We will outline the core features of the SkinScan app, including AI-based image analysis, educational content, preventive care information, and direct consultation options with dermatologists. These features will be designed to provide a comprehensive and reliable skin health resource for users.

3.1.4 Application Design and Implementation

- a. Creating a Detailed Application Design: We will create a detailed design for the SkinScan application, incorporating the user interface and system architecture. This design will serve as a blueprint for development, ensuring all components work together seamlessly.
- b. Implementing Key Features: Our development team will begin implementing the key features identified in the design phase. This includes developing and integrating AI algorithms for image analysis, educational modules, and consultation functionalities.
- c. Carrying Out Testing and Improvement: Throughout the development process, we will conduct rigorous testing to ensure the accuracy and reliability of the SkinScan app. We will address any issues or bugs that arise and make continuous improvements based on user feedback and testing results.

3.1.5 Product Testing and Evaluation

- a. Testing with Users: We will invite a diverse group of users, including individuals with various skin conditions, to test the SkinScan app. This will provide real-world feedback on the app's performance and usability.
- b. Collecting User Feedback: We will gather detailed feedback from users regarding their experience with the app. This feedback will be crucial for evaluating the effectiveness of the app and identifying areas for improvement.

c. Performing Functional and Quality Testing: We will conduct comprehensive functional and quality testing to ensure the app performs well under various conditions. This includes testing for different skin tones, lighting conditions, and device types to ensure consistent accuracy and reliability.

3.2 Progress Report

- a. Prepare Progress Reports: We will prepare regular progress reports documenting the research findings, design progress, development milestones, and testing results. These reports will provide a clear overview of the project's status and achievements.
- b. Present Data and Findings: Our progress reports will include detailed data and findings from the application's testing and evaluation phases. This data will encompass usage statistics, diagnostic accuracy rates, and user satisfaction metrics.
- c. Provide Analysis on the Success of the Application: We will analyze the success of the SkinScan app in meeting the needs of users and achieving its objectives. This analysis will include identifying the app's strengths and areas for improvement, along with recommendations for future development.

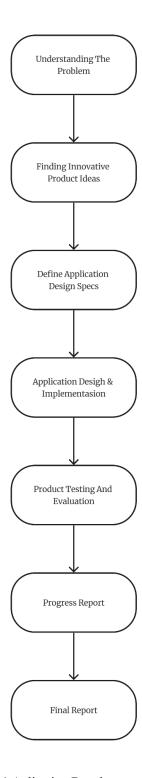
3.3 Final Report

- a. Compile Final Report: We will compile a comprehensive final report covering all stages of the SkinScan app's development. This report will include detailed descriptions of the design, implementation, testing, and evaluation processes.
- b. Presenting the Results of User Evaluations: The final report will present the results of user evaluations, including feedback and suggestions from users. This will provide valuable insights into the app's performance and its impact on users' skin health management.
- c. Provide Recommendations: Based on our findings and analysis, we will provide recommendations for future enhancements and developments. These recommendations will aim to further improve the SkinScan app's accuracy, usability, and overall effectiveness in addressing skin health concerns.

By following this comprehensive implementation plan, we aim to develop a robust and user-friendly SkinScan application that significantly improves the early detection and management of skin diseases, thereby contributing to better skin health outcomes for users in Indonesia.

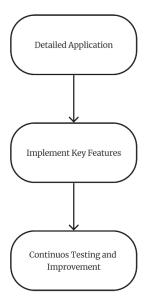
The following is a diagram that can be used to illustrate the stages of making and developing the SkinScan application:

Flowchart of Application Development Stages:



Picture 1 Aplication Development Stages

Illustration Example for the "Application Design and Implementation" Stage:



Picture 2 Application Development Process

Detailed Application Design: Create a comprehensive design, including the user interface and system architecture. This stage involves planning the layout, color schemes, navigation flow, and overall look and feel of the application to ensure it is user-friendly and accessible.

Implement Key Features: Develop and integrate essential features such as:

- AI Visual Input: Use AI to analyze images of the skin taken by the smartphone camera to detect signs of skin diseases.
- OpenCV Integration: Apply OpenCV for image preprocessing to enhance quality, remove noise, and perform skin segmentation.

Continuous Testing and Improvement: Conduct ongoing tests to ensure quality, accuracy, and user satisfaction. This includes:

- Unit Testing: Testing individual components of the application for functionality.
- o Integration Testing: Ensuring that different modules of the application work together seamlessly.
- User Testing: Gathering feedback from real users to identify any issues and areas for improvement.
- Performance Testing: Ensuring the application runs smoothly on various devices and under different conditions.

CHAPTER IV

COST AND SCHEDULE

4.1 Cost Structure

NO	EXPENDITURES	COST OF INCOME	PRICE (RP)
1	Research	Belmawa	2,000,000
		University	1,500,000
		Relevant Agencies	-
2	Consumable	Belmawa	1,000,000
		University	750,000
		Relevant Agencies	-
3	Transportation	Belmawa	500,000
		University	400,000
		Relevant Agencies	-
4	Rental Fee	Belmawa	1,000,000
		University	750,000
		Relevant Agencies	-
5	Testing	Belmawa	1,500,000
		University	1,000,000
		Relevant Agencies	-
6	Others	Belmawa	750,000
		University	500,000
		Relevant Agencies	-
	TOTAL	11,650,000	

4.2 Cost Structure Recap

NO	SOURCE OF INCOME	TOTAL
1	Bermawa	6,750,000
2	University	4,900,000
3	Relevant Agencies	0
	GRAND TOTAL	11,650,000

NO	ACTIVITY	MONTH			PERSON IN CHARGE	
		1	2	3	4	
1	Manufacturing	of F	uncti	onal .	App	lication Products
	Identification of problems					Kezia Valerina Damanik
	Define Application Design Specifications					Loly Amelia Nurza Nayla Thahira Meldian
	Application Design and Implementation					Della Khairunnisa
	Product Testing and Evaluation					Aisyah Insani Aulia
2	Making Repo	rts ar	nd Int	ellec	tual	Property Rights
	Paten					Aisyah Insani Aulia Della Khairunnisa
	Promotion					Nayla Thahira Meldian
	Progress Report					Loly Amelia Nurza
	Final Report					Kezia Valerina Damanik

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Attachments

Attachment 1: Group Biography

Group Leader

A. Identity

1	Full Name	Kezia Valerina Damanik	
2	Gender	Female	
3	Major	Information Systems	
4	Student Number	2311522010	
5	Place and Date of Birth	Padang, June 20rd 2005	
6	E-mail Address	keziadamanik20@gmail.com	
7	Phone Number	085265254689	

B. Student Activities Attended or Ongoing

	Activity	Status	Time and Place
1	Bimbingan Aktivitas Kemahasiswaan dalam Tradisi Ilmiah	Participant	2023/ Andalas University
2	Training Andalasian Character	Participant	2023/ Andalas University
3	Dewan Perwakilan Mahasiswa (DPM) FTI UNAND	External bureau staff	2024/ Andalas University
4	Connectech SI 2024	Public relations staff	2024/ Andalas University

C. Achievements Received

Achievement	Organizer	Year

17

All data that I have filled in and listed in this biodata is correct and legally accountable. If in the future it turns out that there is a discrepancy with reality, I am ready to accept sanctions.

Thus, I made this biodata truthfully to fulfill one of the requirements in applying for **PKM-KI**.

Padang, 6th June 2024 Group Leader

(Kezia Valerina Damanik)

1st Member

D. Identity

1	Full Name	Loly Amelia Nurza	
2	Gender	Female	
3	Major	Information Systems	
4	Student Number	2311521016	
5	Place and Date of Birth	h Padang, May 4th 2005	
6	E-mail Address	lolyamelia45@gmail.com	
7	Phone Number	082268251708	

E. Student Activities Attended or Ongoing

	Activity	Status	Time and Place
1	Bimbingan Aktivitas Kemahasiswaan dalam Tradisi Ilmiah	Participant	2023/ Andalas University
2	Training Andalasian Character	Participant	2023/ Andalas University
3	Dewan Perwakilan Mahasiswa (DPM) FTI UNAND	Communication and Information Service Bureau staff	2024/ Andalas University
4	Connectech SI 2024	Public relations staff & MC	2024/ Andalas University
5	HMSI Fest 2024	MC	2024/ Andalas University

F. Achievements Received

Achievement	Organizer	Year

19

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applying for **PKM-KI**.

Padang, 6th June 2024

Team Member

(Loly Amelia Nurza)

2nd Member

A. Identity

1	Full Name	Nayla Thahira Meldian
2	Gender	Female
3	Major	Information Systems
4	Student Number	2311521006
5	Place and Date of Birth	Bukittinggi, June 8th 2005
6	E-mail Address	naylathahirameldian@gmail.com
7	Phone Number	08116618686

B. Student Activities Attended or Ongoing

	Activity	Status	Time and Place
1	Bimbingan Aktivitas Kemahasiswaan dalam Tradisi Ilmiah	Participant	2023/ Andalas University
2	Training Andalasian Character	Participant	2023/ Andalas University
3	Connectech SI 2024	Public relations staff	2024/ Andalas University
4	LKMM-TD FTI	Sponsorship staff	2024/Andalas University
5	HIPMI PT Unand	Business and Development staff	2024/Andalas University

C. Achievements Received

Achievement	Organizer	Year

21

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Padang, 6th June 2024
Team Member

(Nayla Thahira Meldian)

3rd Member

A. Identity

1	Full Name	Aisyah Insani Aulia
2	Gender	Female
3	Major	Information Systems
4	Student Number	2311523024
5	Place and Date of Birth	Bukittinggi, Oct 2nd 2003
6	E-mail Address	aisyahinsaniaulia.03@gmail.com
7	Phone Number	082285550270

B. Student Activities Attended or Ongoing

	Activity	Status	Time and Place
1	Bimbingan Aktivitas Kemahasiswaan dalam Tradisi Ilmiah	Participant	2023/ Andalas University
2	Training Andalasian Character	Participant	2023/ Andalas University
3	Connectech SI 2024	staff	2024/ Andalas University

C. Achievements Received

Achievement	Organizer	Year

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Thus, I made this biodata truthfully to fulfill one of the requirements in applying for **PKM-KI**.

Padang, 6th June 2024 Team Member

(Aisyah Insani Aulia)

4th Member

A. Identity

1	Full Name	Della Khairunnisa	
2	Gender	Female	
3	Major	Information Systems	
4	Student Number	2311523032	
5	Place and Date of Birth	Padang, 07 Desember 2004	
6	E-mail Address	dellakhairunnisa43@gmail.com	
7	Phone Number	081277901402	

B. Student Activities Attended or Ongoing

	Activity	Status	Time and Place
1	Bimbingan Aktivitas Kemahasiswaan dalam Tradisi Ilmiah	Participant	2023/ Andalas University
2	Training Andalasian Character	Participant	2023/ Andalas University
3	Dewan Perwakilan Mahasiswa (DPM) FTI UNAND	Commission 1 staff	2024/ Andalas University
4	Connectech SI 2024	Public relations Coordinator	2024/ Andalas University

C. Achievements Received

Achievement	Organizer	Year

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Thus, I made this biodata truthfully to fulfill one of the requirements in applying for **PKM-KI**.

Padang, 6th June 2024 Team Member

(Della Khairunnisa)

Attachment 2: Cost Justification

No	Expenditure	Volume	Price per Unit (Rp)	Total (Rp)	
1	1 Consumable (50.6%)				
	Hosting	1	1.300.000	1.300.000	
	Domain	1	1.300.000	1.300.000	
	SSL	1	1.300.000	1.300.000	
	Brochure Paper	200	3.500	700.000	
	Phone Credit	4	150.000	600.000	
	Costum E-mail	4	100.000	400.000	
	Brochure Design	1	1.000.000	1.000.000	
	SUB TOTA	AL		6.200.000	
2	Rental Fee (25.8%)				
	API Skin Analysis Rental	3	800.000	2.400.000	
	AI Image Processing Rental	3	500.000	1.500.000	
SUB TOTAL				3.900.000	
3	Transportation (13.3%)				
	Material Preparation	1	500.000	500.000	
	Testing Needs	1.000.000	1.000.000		
	SUB TOTA	AL		1.500.000	
4	Lain-Lain (10.3%)				
	Copyright	1	800.000	800.000	
	Social Media AdSense	3	250.000	750.000	
	SUB TOTA	A L		1.550.000	
	GRAND TO	TAL		11.650.000	
GR.A	AND TOTAL (Eleven Million S	Six Hundre	ed and Fifty Thous	sand Rupiah)	

Attachment 3. Organizational Structure of the Implementation Team and Division of Tasks

N o	Name/NIM	Study Program	Knowled ge Field	Time Allocat ion (hours/ week)	Job Description
1	Kezia Valerina Damanik	S1 Information Systems	Informati on Systems	8	a. Chief Executive b. Identification of problems c. Responsibility as a provider of needs and equipment
2	Loly Amelia Nurza	S1 Information Systems	Informati on Systems	8	a. Define Application b. Application Design and Specifications c. Progress Report
3	Nayla Thahira Meldian	S1 Information Systems	Informati on Systems	8	a. Define Application b. Design Specifications c. Guarantor SkinScan Application creation
4	Aisyah Insani Aulia	S1 Information Systems	Informati on Systems	8	a. Product Testing and Evaluation b. Responsible for making applications c. Final Reports
5	Della Khairunnisa	S1 Information Systems	Informati on Systems	8	a. Application Design and Implementation b. Making progress reports c. Final reports

Attachment 4. Statement Letter from the Head of the Implementation Team STATEMENT LETTER OF THE CHAIRMAN OF THE IMPLEMENTING TEAM

The undersigned below:

Team Leader Name	:	Kezia Valerina Damanik
Student ID Number	:	2311522010
Study Program	:	Information System
Name of Associate Lecturer	:	Afriyanti Dwi Kartika, MT.
College	:	Andalas University

Hereby certify that my PKM-KI proposal entitled 'SkinScan-Early Detection Application For Skin Diseases On Smartphone Cameras' which is proposed for the fiscal year 2024 is our original work and has never been funded by another institution or source of funds. If in the future discrepancies with this statement are found, then I am willing to be prosecuted and processed according to the applicable provisions and return all fees received to the state treasury. Thus, this statement is made truthful and truthfully.

Padang, 6th June 2024 Team Leader

(Kezia Valerina Damanik)

Attachment 5 Overview of the Concept of Inovative Work to be Made

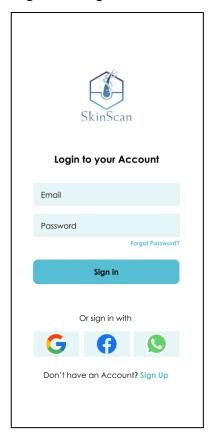
The SkinScan application that we offer is a technology-based innovation that aims to help people find and identify symptoms of skin diseases independently. Using image processing technology and artificial intelligence (AI), the app can analyze images of a user's skin and provide information about the type of skin disease they may have, as well as recommendations on what actions they should take afterward.

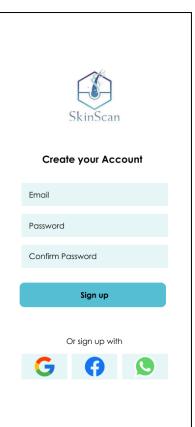
There are many features that will help users overcome their skin problems. Important features in this application are account login and account registration, menu, skin scan, diagnosis, solutions, educational videos, consultation with a doctor, and user profile.

1. SkinScan Logo









3. Home

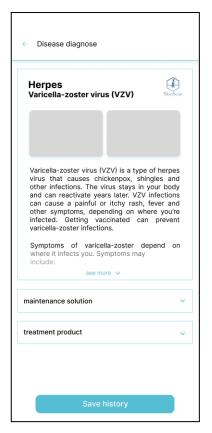




4. Scan Feature

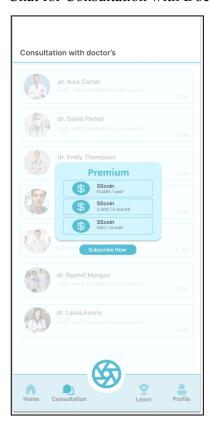


5. Skin Diagnosis

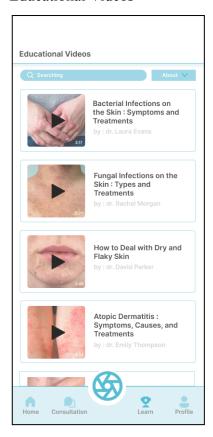




6. Chat for Consultation with Doctor



7. Educational Videos



8. User's Profile Account

