

# **CALORIES CALCULATOR AND ANDROID SUGGESTER APP**



**By**

**MUHAMMAD RIZKY AKBAR**

**Project Submitted in Partial Fulfillment of the Requirements for the Degree  
of Bachelor in Information and Communication Technology (Hons.) in the**

**Faculty of Information Sciences and Engineering**

**February 2024**

## **ABSTRACT**

Abstract of project presented to the Senate of Management & Science University in partial fulfillment of the requirements for the degree of Bachelor in Information and Communication Technology (Hons.).

## **CALORIES CALCULATOR AND SUGGESTER ANDROID APP**

**By**

**MUHAMMAD RIZKY AKBAR**

**June 2023**

### **Faculty: Information Sciences and Engineering**

A calorie calculator is a tool used to estimate the number of calories a person needs based on factors such as their age, gender, height, weight, level of physical activity, and health or fitness goals. Calorie calculators are often used in weight loss programs, food management, or daily caloric intake exercises.

While calorie calculations can provide a rough estimate of a person's caloric needs, it is important to remember that these are estimates only and the figures provided may not be accurate for every individual. There are some individual factors that the calorie calculator cannot take into account, such as individual metabolism, body composition, and genetic factors.

In addition, calorie calculators also do not take into account other nutritional factors such as the type of food consumed, nutritional quality, and individual needs for certain macronutrients and micronutrients. Therefore, it is important to consider food quality and balanced nutrition when planning a healthy diet and eating pattern.

It is also important to remember that successful weight loss or food management does not only depend on calorie counting, but also involves factors such as program adherence, physical activity, good sleep patterns, stress management, and social support.

In terms of caloric use, it is advisable to take the results as a preliminary guide and talk to a health professional, such as a nutritionist or doctor, for more accurate and specific recommendations according to your needs and health condition.

## **ACKNOWLEDGEMENT**

First and foremost, I thank Allah, the Almighty, for His grace, strength, and, most importantly, faithfulness and love from the beginning of my academic career up to the level of this degree. Her kindness has enabled me to achieve and succeed in all my academic endeavours.

In addition to my efforts, the success of this report has depended heavily on the support and guidance of many people. I would like to take this opportunity to convey my gratitude to everyone who contributed to the successful completion of my thesis. It would be difficult to name everyone, but many deserve special recognition.

I would like to express my deepest gratitude to Ms. Rosidah Binti Rosdi as my Final Project Advisor. I can't thank him enough for his unwavering support and help. Every time I meet him, I am always given motivation in my project. This report would not have been possible without their support and guidance.

Finally, I honestly and sincerely appreciate my beloved parents for their support and the responsibilities they carry out on my behalf. I would also like to thank my younger siblings who have provided endless support and encouragement for me to continue my studies. It's impossible to find the right words to express how much I owe these people. Thank you very much.

## TABLE OF CONTENT

Declaration .....	<b>Error! Bookmark not defined.</b>
Certification of Project Paper .....	<b>Error! Bookmark not defined.</b>
ABSTRACT .....	i
ABSTRAK .....	<b>Error! Bookmark not defined.</b>
ACKNOWLEDGEMENT .....	iii
TABLE OF CONTENT .....	iii
LIST OF TABLES .....	vi
LIST OF FIGURES .....	vii
CHAPTER I INTRODUCTION .....	<b>Error! Bookmark not defined.</b>
1.1 Introduction.....	<b>Error! Bookmark not defined.</b>
1.2 Project Background .....	<b>Error! Bookmark not defined.</b>
1.3 Problem Statement .....	<b>Error! Bookmark not defined.</b>
1.4 Objectives .....	<b>Error! Bookmark not defined.</b>
1.5 Significance .....	<b>Error! Bookmark not defined.</b>
1.6 Scope of Project .....	<b>Error! Bookmark not defined.</b>
1.6.1 Admin.....	<b>Error! Bookmark not defined.</b>
1.6.2 User .....	<b>Error! Bookmark not defined.</b>
1.7 Assumptions and Limitations .....	<b>Error! Bookmark not defined.</b>
1.7.1 Assumptions .....	<b>Error! Bookmark not defined.</b>
1.7.2 Limitations.....	<b>Error! Bookmark not defined.</b>
CHAPTER II LITERATURE REVIEW.....	<b>Error! Bookmark not defined.</b>
2.1 Review of Current Situation .....	<b>Error! Bookmark not defined.</b>
2.2 Review of Related Literature .....	<b>Error! Bookmark not defined.</b>
CHAPTER III METHODOLOGY .....	<b>Error! Bookmark not defined.</b>
3.1 Project Methodology .....	<b>Error! Bookmark not defined.</b>
3.2 Hardware and Software Requirements.....	<b>Error! Bookmark not defined.</b>
3.3 User Requirement.....	<b>Error! Bookmark not defined.</b>
3.4 Development Methodology .....	<b>Error! Bookmark not defined.</b>
3.4.1 Requirement Phase.....	<b>Error! Bookmark not defined.</b>

3.4.2 Design Phase .....	<b>Error! Bookmark not defined.</b>
3.4.3 Development and Coding Phase ....	<b>Error! Bookmark not defined.</b>
3.4.4 Integration and Testing Phase .....	<b>Error! Bookmark not defined.</b>
3.4.5 Implementation and Development Phase	<b>Error! Bookmark not defined.</b>
3.4.6 Review Phase .....	<b>Error! Bookmark not defined.</b>
3.5 System Design .....	<b>Error! Bookmark not defined.</b>
3.5.1 Use Case Diagram.....	<b>Error! Bookmark not defined.</b>
3.5.2 Class Diagram.....	<b>Error! Bookmark not defined.</b>
3.5.3 Activity Diagram.....	<b>Error! Bookmark not defined.</b>
3.5.4 State Machine Diagram .....	<b>Error! Bookmark not defined.</b>
3.5.5 Sequence Diagram .....	<b>Error! Bookmark not defined.</b>
CHAPTER IV FINDINGS AND DISCUSSION..	<b>Error! Bookmark not defined.</b>
4.1 Introduction.....	<b>Error! Bookmark not defined.</b>
4.2 Project Contribution .....	<b>Error! Bookmark not defined.</b>
4.3 Result Discussion .....	<b>Error! Bookmark not defined.</b>
CHAPTER V SUMMARY, CONCLUSION & RECOMMENDATION.....	<b>Error!</b>
<b>Bookmark not defined.</b>	
5.1 Summary.....	<b>Error! Bookmark not defined.</b>
5.2 Conclusions.....	<b>Error! Bookmark not defined.</b>
5.3 Recommendations .....	<b>Error! Bookmark not defined.</b>
BIBLIOGRAPHY.....	8

## LIST OF TABLES

Table 3.1 Hardware.....	<b>Error! Bookmark not defined.</b>
Table 3.2 Software.....	<b>Error! Bookmark not defined.</b>
Table 3.3 Requirement List.....	<b>Error! Bookmark not defined.</b>

## LIST OF FIGURES

Figure 3.1 Use Case Diagram.....	<b>Error! Bookmark not defined.</b>
Figure 3.2 Class Diagram.....	<b>Error! Bookmark not defined.</b>
Figure 3.3 Activity Diagram Log in/Register .....	<b>Error! Bookmark not defined.</b>
Figure 3.4 Activity Diagram User Select/Register	<b>Error! Bookmark not defined.</b>
Figure 3.5 Activity Diagram Information .....	<b>Error! Bookmark not defined.</b>
Figure 3.6 Activity Diagram Calculator Check.....	<b>Error! Bookmark not defined.</b>
Figure 3.7 Activity Diagram Flow All Flow .....	<b>Error! Bookmark not defined.</b>
Figure 3.8 State Machine Diagram .....	<b>Error! Bookmark not defined.</b>
Figure 3.9 Sequence Diagram .....	<b>Error! Bookmark not defined.</b>
Figure 4.1 Initial Page For User Login .....	<b>Error! Bookmark not defined.</b>
Figure 4.2 Initial page for user register.....	<b>Error! Bookmark not defined.</b>
Figure 4.3 Page of Menu Application.....	<b>Error! Bookmark not defined.</b>
Figure 4.4 Page of Menu Weight.....	<b>Error! Bookmark not defined.</b>
Figure 4.5 Page of Food Consumption .....	<b>Error! Bookmark not defined.</b>
Figure 4.6 Page of Practice Hours .....	<b>Error! Bookmark not defined.</b>
Figure 4.7 Page of Suggestion.....	<b>Error! Bookmark not defined.</b>



## BIBLIOGRAPHY

- Huth PJ, Fulgoni VL, Keast DR, Park K, Auestad N. Sumber makanan utama kalori, gula tambahan, dan lemak jenuh serta kontribusinya terhadap asupan nutrisi penting dalam diet AS: data dari Survei Pemeriksaan Kesehatan dan Gizi Nasional (2003) -2006). *Nutr J*. 2013 Agustus 08; 12 :116. [ [Artikel gratis PMC](#) ] [ [PubMed](#) ]
- Zabriskie HA, Currier BS, Harty PS, Stecker RA, Jagim AR, Kerksick CM. Status Energi dan Komposisi Tubuh Sepanjang Musim Lacrosse Wanita Perguruan Tinggi. *Nutrisi*. 23 Februari 2019; 11 (2) [ [Artikel gratis PMC](#) ] [ [PubMed](#) ]
- Hall KD, et al. Quantification of the effect of energy imbalance on body weight. *Lancet*. 2011 Aug. 27;378(9793):826-37.
- Mifflin MD, et al. A new predictive equation for resting energy expenditure in healthy individuals. *Am J Clin Nutr*. 1990 Oct;51(2):241-7.
- Schofield WN. Predicting basal metabolic rate, new standards and review of previous work. *Hum Nutr Clin Nutr*. 1985;39 Suppl 1:5-41.
- Harris JA, Benedict FG. *Biometric Studies of Basal Metabolism in Humans*. Washington, DC: Carnegie Institution of Washington; 1919.
- Academy of Nutrition and Dietetics. Evidence Analysis Library. [On line]. Available: <https://www.andeal.org/> .
- United States Department of Agriculture (USDA). National Nutrition Database for Standard Reference. [On line]. Available: <https://ndb.nal.usda.gov/ndb/> .
- National Institutes of Health (NIH). Weight Planner. [On line]. Available: <https://www.supertracker.usda.gov/bwp/> .
- Freedman MR, et al. Popular diets: a scientific review. *Obes Res*. 2001 Apr;9 Suppl 1:1S-40S.
- Wing RR, Phelan S. Maintenance of long-term weight loss. *Am J Clin Nutr*. Jul 2005;82(1 Suppl):222S-225S.





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI

POLITEKNIK NEGERI SRWIJAYA

Jalan Srijaya Negeri Bukit Besar - Palembang 30139 Telp: (0711) 353414  
Laman : <http://polst.ac.id>, Pos El : [info@polst.ac.id](mailto:info@polst.ac.id)

FINAL PROJECT REPORT (T/A) AUTHENTICATION SHEET

Name : Muhammad Rizky Akbar  
NIM : 061940832787  
Department/Program : Manajemen Informatika / DIV Manajemen Informatika  
Final Project Report : Calories Calculator And Suggester Android App

Tested on the Final Project Examination, 1<sup>st</sup> June 2023

In front of the Examination Team of the Department of Manajemen Informatika  
Politeknik Negeri Sriwijaya

Acknowledge by,  
Head of Department : Palembang, 18 September 2023  
Manajemen Informatika : Approved by,  
Supervisor

*ANZ*

*Dr. Ineti Ariyanti, S.E., M.Si.*  
NIP 197306032008012008

Nita Novita, S.E., MM.  
NIP 197411232008012008



CS Dipindai dengan CamScanner



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI

POLITEKNIK NEGERI SRWIJAYA

Jalan Srijaya Negeri Bukit Besar - Palembang 30139 Telp: (0711) 353414  
Laman : <http://polst.ac.id>, Pos El : [info@polst.ac.id](mailto:info@polst.ac.id)

SUBMISSION OF FINAL PROJECT TITLE

Dear,  
Supervisor  
at  
Politeknik Negeri Sriwijaya

Sincerely,

In order to meet the requirements for the preparation of the Final Project, I:

Name : Muhammad Rizky Akbar

NIM : 061940832787

Class : 8 MIG

Department/Study Program : Manajemen Informatika / DIV Manajemen Informatika  
Intend to submit the title of the Final Project named:

1. Calories Calculator And Android Suggester Android App, the submission letter for the title of this project is made, if the title above can be approved. Thank you for considering it as an approval.

Approved by,  
Supervisor

*ANZ*

Nita Novita, S.E., MM.  
NIP 197411232008012008

Palembang, 18 September 2023  
Sincerely,  
Student

*ANZ*

Muhammad Rizky Akbar  
NIM 061940832787



CS Dipindai dengan CamScanner



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI  
POLITEKNIK NEGERI SRIWJAYA  
JURUSAN MANAJEMEN INFORMATIKA  
Jalan Surjaya Negeri Baki Besar - Palembang 30139 Telpom (0711) 353414  
Laman: <http://polkn.ac.id> Pos El: [info@polkn.ac.id](mailto:info@polkn.ac.id)

#### FINAL PROJECT TITLE APPROVAL SHEET

Name : Muhammad Rizky Akbar  
NIM : 061940832787  
Class : 8 MIG  
Department/Program : Manajemen Informatika/DIV Manajemen Informatika  
Final Project Title : Calories Calculator And Suggester Android App

Advisory Team:  
Palembang, 6 September 2023

Acknowledged by,  
Head of Department  
Manajemen Informatika

Dr. Indri Ariyanti, SE., M.Si.  
197306032008012008

Supervisor

Nita Novita, SE., MM.  
NIP. 197411232008012008



Dipindai dengan CamScanner



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI  
POLITEKNIK NEGERI SRIWJAYA  
JURUSAN MANAJEMEN INFORMATIKA  
Jalan Surjaya Negeri Baki Besar - Palembang 30139 Telpom (0711) 353414  
Laman: <http://polkn.ac.id> Pos El: [info@polkn.ac.id](mailto:info@polkn.ac.id)

#### FINAL PROJECT COUNSELING AGREEMENT

We, the undersign,

First Party  
Name : Muhammad Rizky Akbar  
NIM : 061940832787  
Department : Manajemen Informatika  
Study Program : DIV Manajemen Informatika

Second Party  
Name : Nita Novita, SE., MM.  
NIP : 197411232008012008  
Department : Manajemen Informatika  
Study Program : DIV Manajemen Informatika

Today, Monday, 18<sup>th</sup> of September 2023, we agreed to conduct a consultation on the guidance of the final project report.  
Guidance consultation must be conducted at least 2 (two) times a week. The guidance is conducted on every Monday to Friday at 09.00 WIB to 16.00 WIB, which located at the Politeknik Negeri Sriwijaya.  
This agreement was made consciously for the smoothness of completing for the final project

First Party

Muhammad Rizky Akbar  
NIM 061940832787

Palembang, 6 September 2023  
Second Party

Nita Novita, SE., MM.  
NIP 197411232008012008

Acknowledged by,  
Head of Department of Manajemen Informatika

Dr. Indri Ariyanti, SE., M.Si.  
NIP 197306032008012008



Dipindai dengan CamScanner



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI  
POLITEKNIK NEGERI SURABAYA  
JURUSAN MANAJEMEN INFORMATIKA  
Jalan Sepreni Ngasem Blah-Beluh, Ploso, Kabupaten Ploso (0711) 331114  
Laman: http://politeknik.nsi.ac.id/ E-mail: info@politeknik.nsi.ac.id

Sheet : 2

9.	2 / 10 / 2023	Chapter II & Acc.	AKA
10.			
11.			
12.			

Head Of Department  
Informatics Management

Supervisor

Drs. Idris Ariyanto, S.E., M.Si.  
NIP. 197306032008012008

Nisa Nurita, S.E., MM.  
NIP. 19741122008012008

Note:  
1. The Head of Department must verify the number of counseling sessions conducted in accordance with the guidelines of the Internship Report before signing the counseling sheet.  
This Internship Report counseling sheet must be attached to the Internship Report.



Dipindai dengan CamScanner



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI  
POLITEKNIK NEGERI SURABAYA  
JURUSAN MANAJEMEN INFORMATIKA  
Jalan Sepreni Ngasem Blah-Beluh, Ploso, Kabupaten Ploso (0711) 331114  
Laman: http://politeknik.nsi.ac.id/ E-mail: info@politeknik.nsi.ac.id

### FINAL PROJECT COUNSELING SHEET

Sheet : 1

Name : Muhammad Rizki Akbar  
NIM : 061940832787  
Course / Academic Program : Management Informatic / DIV Management Informatic  
Title : Calories Calculator And Android Suggester App  
Supervisor : Nisa Nurita, SE, MM.

No.	Tanggal	Uraian Bimbingan	Tanda Tangan Pembimbing
1.	03 / 10 / 2023	Title & Acc.	AKA
2.	04 / 10 / 2023	Title Chapter I & Revision	AKA
3.	10 / 10 / 2023	Chapter I Acc.	AKA
4.	11 / 10 / 2023	Title Chapter II / III & Revision	AKA
5.	12 / 10 / 2023	Chapter II / III Acc	AKA
6.	18 / 10 / 2023	Title Chapter IV & Revision	AKA
7.	19 / 10 / 2023	Chapter IV Acc	AKA
8.	10 / 10 / 2023	Title Chapter V & Revision	AKA



Dipindai dengan CamScanner