



Fuzzy logic implementation using Node.js for mobile application-based transaction tracking

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Komputer**

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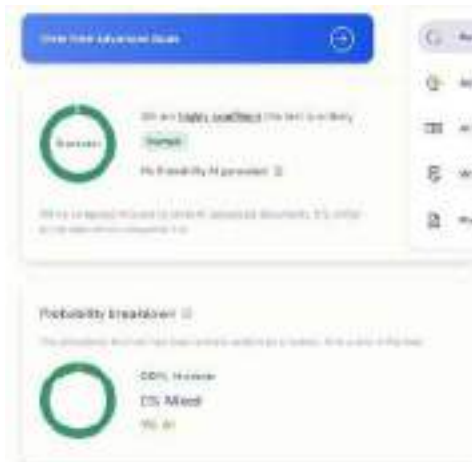
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Chapter 1 Introduction (Background – Scope and limitation)



Chapter 1 Introduction (Project Methodolgy – Final Project Outline)



Chapter II Literature Review (Fuzzy Logic - Ionic)



Chapter II Literature Review (Ionic - Android)



Chapter III Sysstem Analysis (System overview – function analysis)



Chapter III Sysstem Analysis (function analysis)



Chapter IV Sytem Design



Chapter V System Implementation



Chapter VI System Testing



Chapter VII Conclusion and Future Works



ABSTRACT

Financial matters has become the most important topics every time, nowadays we know that the financial industry has rapidly growth with inline with the rapidly growth of technologies in this era. In this era every aspect has digitalize, indeed the financial industry. Back then in 2020 we has past through the Covid pandemic, we know that in that time we suffered, we desperate because every industry has collapsed and country economic is unstable, but the technologies industry is in the opposite direction, technology industry has become the first market leading in 2020, but the side effects of the rapidly growth of technologies what I have notice is in the financial industry, we know that back than in 2020 economy in every country is collapsed or unstable because they need to stop all of the activity, the consequence of this is many of people has been lied off because the company didn't have income to pay his employees, because of this many of people suffered in economic and the finance industry see this as the opportunity, many of finance industry emerge to create online loan program, at that time, there were many illegal and legal online loans. Many of people sees this as their opportunity to get up from pandemic, but in reality, many of people is trapped with this program, moreover there's many that people take the illegal one. Based on these circumstances, this project is focusing on developing a simple application to track their financial transaction, to arise the awareness of financial literacy.

This final project aims to help people especially for people with minimal financial literacy to tracking their financial transaction with technology, this works involves the development of an android-base mobile application, which can be used for everyone and easy access to inputting data. The application contains feature to notified user about how well is their financial condition. The methodology that is used for the project is called waterfall methodology where is consists of 5 development phase, first phase is about to write down the requirement of the application, the second phase is about the designing of the application such as the UI/UX, the third phase is implementation where in this phase the coding is started and implemented what we have designed, the fourth phase is about to test all of the functionality of the application and verified the functionality has passed the test case scenario, the fifth phase is maintenance this phase is about to maintain the application if there any issues arises the we have to fix it.

The data that is collected by the user input will be stored in the database to be displayed in the application and will be processed to give result about the finance condition the user. The aim of this project is to assist the user and also to rising the awareness of finance condition of the user, so the user can maintain and build the finance system to survive and did not get trapped with the program of illegal financial loan. The result of this study is expected to contribute in rising the level of financial literacy and also rising the economy stability of people. The application covered all the features that is mentioned and runs as expected. There are some further development and improvement of the application to support the platform to be a better performance such as the integration of API Payment, integration of educational API and also the interactive UI.

Keywords: **Android, Ionic, Application, Investing, API**

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