



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF COMPUTING
Faculty of Engineering

Project Proposal Form MCSD 6215
Sem: 1 Session : 2024/2025

SECTION A: Project Information.

Program Name: **Masters of Science (Data Science)**

Subject Name: **Project 1 (MCSD 6215)**

Student Name: RIZKI SYAPUTRA

Metric Number: MCS211051

Student Email & Phone: syaputra@graduate.utm.my

Project Title: Sentiment Analysis of Social Media Reactions to Indonesia's Free Meal School Program

Supervisor 1: Assoc. Prof. Dr. Mohd Shahizan bin Othman

Supervisor 2 / Industry
Advisor(if any): _____

SECTION B: Project Proposal

Introduction:

Social media has grown in popularity and effectiveness in recent years as a means of rapidly disseminating information. A large number of individuals utilize it effectively, particularly in Indonesia. A lot of individuals oppose government initiatives on social media. The Free Meal Program has been the most talked about program and a trending issue on different social media platforms since the presidential election debate, the presidential election process, and the inauguration of Gibran Rakamubi Raka and Mr. Prabowo Subianto as Indonesia's eighth president in 2024. There have been mixed reactions to this program on social media; some have been complimentary, while others have been hostile or cynical. The Python programming language, Google Collab, and machine learning are used in this work to apply sentiment analysis approaches. Finding trends in the public's perception of this program is the aim of this study. The goal of this study is to shed light on the efficacy of the free lunch program so that it may serve as a foundation for future program evaluations and improved laws.

Problem Background:

The Indonesian government introduced the Free Meals Program as a way to improve the nutritional status of the poor and help communities cope with the economic crisis, but its success has been largely based on the acceptance of the Indonesian public. Although complex and unstructured, social media offers a wealth of information about public reactions in real time. To overcome this difficulty and understand how the public perceives the Prabowo-Gibran administration's free meal program, an appropriate data analysis method is needed, which involves applying sentiment analysis to Twitter data. This knowledge is essential for policymakers to make proper assessments of the program.

Problem Statement:

Here are some ways to formulate the problem of this project:

1. What do the general public think on social media about the Prabowo-Gibran government's free meal program?

2. Do these sentiments follow a certain pattern according to the time period or topic of discussion?
3. What aspects influence opinions about this program, both positively and negatively?

Aim of the Project:

This study aims to analyze public reactions on social media to the Prabowo-Gibran government's free meal program using sentiment analysis to understand public opinion patterns and factors that influence positive and negative perceptions.

Objectives of the Project:

The goals of this study are as follows:

1. To Gathering Twitter information on the free lunch program with website scraping methods.
 2. To Applying sentiment analysis to the gathered data in order to determine the public's perspective (positive, negative, or neutral).
 3. To Categorizing the sentiment-related primary subjects of public discourse.
 4. To Presenting research to help policymakers and the government improve the caliber of social welfare initiatives.
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Scopes of the Project:

- a. Data Collection: The Prabowo-Gibran government's free meal program is the source of data used, which was collected via Twitter using certain keywords and hashtags.
 - b. Sentiment Analysis Method: Naive Bayes Classifier, SVM, and KNN machine learning techniques were used in the analysis process.
 - c. Topic Modeling: To find important themes in the data, unsupervised learning techniques will be applied.
 - d. Time Frame: To understand the immediate response of the public, data analysis is limited to a specific time frame around the launch of the program. The data used is relevant to this program and comes from 2023 and 2024.
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Expected Contribution of the Project:

This research is expected to provide an in-depth understanding of public perceptions of social policies through social media data analysis. The findings of this study can be valuable input for the government to evaluate and improve welfare programs in the future. In addition, this study will provide examples of the implementation of sentiment analysis that can be applied to other policies.

Project Requirements:

Software: Google Collab and Python

Hardware: Macbook M1 Pro 2021, RAM 8 GB

Technology/Technique/
Methodology/Algorithm: Sentiment Analysis and Machine Learning

Type of Project (Focusing on Data Science):

- ☒ Data Preparation and Modeling
- ☒ Data Analysis and Visualization
- ☐ Business Intelligence and Analytics
- ☒ Machine Learning and Prediction

☒ Data Science Application in Business Domain

Status of Project:

☒ New

☐ Continued

If continued, what is
the previous title?

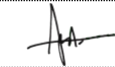
SECTION C: Declaration

I declare that this project is proposed by:

☒ Myself

☐ Supervisor/Industry Advisor ()

Student Name: RIZKI SYAPUTRA



Signature

9 November 2024

Date

SECTION D: Supervisor Acknowledgement

The Supervisor(s) shall complete this section.

I/We agree to become the supervisor(s) for this student under aforesaid proposed title.

Name of Supervisor 1:

Signature

Date

Name of Supervisor 2 (if any):

Signature

Date

SECTION E: Evaluation Panel Approval

The Evaluator(s) shall complete this section.

Result:

☐ FULL APPROVAL

☐ CONDITIONAL APPROVAL (Major)*

☐ CONDITIONAL APPROVAL (Minor)

☐ FAIL*

* Student has to submit new proposal form considering the evaluators' comments.

Comments:

Name of Evaluator 1:

.....
Signature

.....
Date

Name of Evaluator 2:

.....
Signature

.....
Date