<div align="center">**BRIEF PROPOSAL**</div>

TITLE

Financial Management System with Machine Learning Support

SUPERVISOR

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BASIC SKILLS REQUIREMENTS

  i.   Frontend: HTML, CSS, and JavaScript for developing the user interface.
 ii.   Backend: PHP and SQL for server-side processing and data management.
iii.   Machine Learning: Python for implementation of machine learning model such as Regression.
 iv.   Database Management: Integrating databases within web application.

DESCRIPTION OF THE PROJECT

This project focuses on developing a web application that manage group and individual financial in one platform. This web application will help users to track their daily spending, organize shared costs with friends and gain a deeper understanding of their financial habits. By integrating a Machine Learning Model, this financial management system will analyse users' historical spending patterns to offer personalized budget suggestions and detect unusual expenses to make smarter financial decisions.

PROBLEM STATEMENT

Students often face difficulties in managing their financial efficiently especially tracking both of their personal and shared expenses to gain overview of their spending. Limited financial literacy among young adults results in weak money management skills, as their insufficient understanding of financial matters hinders their ability to handle money effectively (Teo et al., 2013). Without integrated tracking and analytic tools, users tend to struggle in monitoring their spending patterns and maintain their budget effectively. In addition, this issue becomes more complicated when dealing with group expenses, where manual tracking often leads to delays in repayments and misunderstandings among members. This project aims to develop a unified system that simplifies financial management and promotes better financial awareness.

OBJECTIVES

  i.   To develop a responsive web application that enables users to record, manage and monitor both personal and shared financial transactions to ensure accuracy and transparency.

    ii.   To generate clear financial summaries and balance sheets that assist users in monitoring their spending effectively.

    iii.   To implement a machine learning model to analyse spending habits and provide personalized budgeting recommendations for improved financial planning.

PROJECT OUTCOME

    i.   A fully functional web application financial management system capable of monitoring both personal and shared expenses of an individual.

    ii.   Comprehensive financial summaries that provide users with clear insights into their spending patterns and financial transactions.

    iii.   A machine learning model capable of analysing users' spending habits and generating personalized recommendations to help them plan and manage their finances more effectively.

KEY REFERENCES

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Rong, S., & Bao-Wen, Z. (2018). The research of regression model in machine learning field. *MATEC Web of Conferences*, *176*, 01033. https://doi.org/10.1051/matecconf/201817601033

Teo, T. J., Mohamad Fazli, S., Husniyah, A. R., Mohd Amim, O., Afida Mastura, & M. A. (n.d.). The Influence of Financial Knowledge,   Financial Practices and Self-Esteem on Money Management Skills of Young Adults. In   *Malaysian Journal of Youth Studies*, 23–25. https://www.iyres.gov.my/images/MJYS/2013/MJYS%20Vol%209%20Dec%202013-25- 39.pdf