



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF COMPUTING
Faculty of Engineering

Project Proposal Form MCST1043
Sem: 2 Session: 2024/25

SECTION A: Project Information.

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

Subject Name: **Project 1 (MCST1043)**

Student Name: Sun Yihui

Metric Number: MCS241024

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

Project Title: Sentiment Analysis of Ethereum (ETH) on Twitter: Insights from Social Media Trends

Supervisor 1: _____

Supervisor 2 / Industry
Advisor(if any): _____

SECTION B: Project Proposal

Introduction:

Ethereum (ETH) is one of the most influential blockchain platforms in the cryptocurrency ecosystem. As social media plays a crucial role in shaping market sentiment, Twitter, as a real-time and highly engaged platform, provides rich data for understanding public opinion on ETH.

Problem Background:

The volatile nature of cryptocurrency markets is significantly impacted by social sentiment. Investors and traders often respond to Twitter discussions, influencers' opinions, and trending hashtags related to Ethereum. However, without structured analysis, it is difficult to quantify the relationship between social media sentiment and ETH price movements.

Problem Statement:

There is a lack of focused, data-driven research that examines how sentiment on Twitter influences the market trends of Ethereum. Understanding this relationship can provide valuable insights for traders, investors, and researchers.

Aim of the Project:

To analyze the sentiment of Ethereum-related tweets and evaluate how social media sentiment correlates with Ethereum's market performance.

Objectives of the Project:

1. Collect Ethereum-related tweets over a specific timeframe.
2. Perform sentiment analysis using Natural Language Processing (NLP) tools.
3. Correlate sentiment scores with ETH price movements and trading volumes.
4. Visualize findings with clear, easy-to-understand charts and graphs.
5. Provide actionable insights and recommendations based on the analysis.

Scopes of the Project:

1. Focused exclusively on Twitter data related to Ethereum.
2. Analyze English-language tweets for sentiment classification.
3. Timeframe: Suggested 3–6 months of historical data, plus live data if possible.
4. Excludes other social media platforms (Reddit, Telegram) and altcoins.

Expected Contribution of the Project:

1. Provide a clear view of how social sentiment influences Ethereum price dynamics.
2. Offer predictive insights for traders based on social media trends.
3. Create a reusable framework for analyzing other cryptocurrencies in the future.

Project Requirements:

Software: Python , Jupyter Notebook / Google Colab, Twitter API v2, Tableau or Power BI

Hardware: Personal laptop or cloud computing resource

Technology/Technique/
Methodology/Algorithm: Data Collection, Data Cleaning & Preprocessing, NLP, Sentiment Analysis, Time Series Analysis

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: _____

Signature

Date

17ve Apr 8

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:

[illegible]

Name of Evaluator 1:

Date

Name of Evaluator 2:

Date _____