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. Given the significant influence of social media on market sentiment, Twitter, a highly active and real-time platform, offers rich data for comprehending public sentiment regarding ETH.

Problem Background:

The Social sentiment has an enormous impact on the erratic nature of cryptocurrency markets. Investors and traders frequently react to Ethereum-related trending hashtags, influence opinions, and Twitter conversations. However, it is challenging to measure the correlation between sentiment on social media platforms and changes in the price of ETH without a systematic analysis..

Problem Statement:

Focused, data-driven research that looks at how sentiment on Twitter affects Ethereum market trends is lacking. Researchers, traders, and investors can all benefit from an understanding of this relationship.
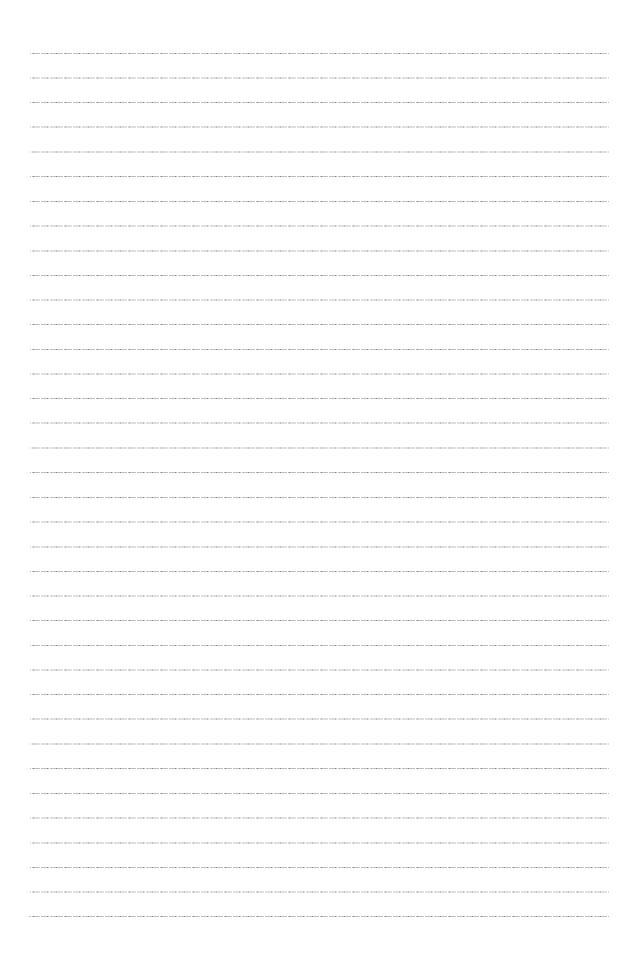
Aim of the Project:

To evaluate the sentiment of tweets about Ethereum in order to determine how social media sentiment and market performance are related.

Objectives of the Project:

1. Compile tweets about Ethereum over a predetermined period of time.
2. Use Natural Language Processing (NLP) tools to conduct sentiment analysis.
3. Establish a correlation between sentiment scores and trading volumes and ETH price changes.
4. Use easily comprehensible charts and graphs to visualize findings.
5. Based on the analysis, offer practical insights and suggestions.

Scopes of the Project:

1. Only looked at Ethereum-related data from Twitter.
2. Classify sentiment in English-language tweets.
3. Timeframe: Three to six months of historical data, along with live data if feasible, were recommended.

4. Does not include altcoins or other social media sites like Reddit or Telegram.

Expected Contribution of the Project:

1. Clearly illustrate how social sentiment affects the dynamics of Ethereum's price.
2. Use social media trends to provide traders with predictive insights.
3. Develop a reusable framework for future cryptocurrency analysis.

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**

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:

Project1 Proposal Form MSc (Data Science)

Name of Evaluator 1: ....

....
Signature   **Date**

Name of Evaluator 2: ....

....
Signature   **Date**