

SE 3XA3: Problem Statement

CryptoMetrics

Team 15

Saif Fadhel, fadhels

Vanshaj Verma, vermav2

Himanshu Aggarwal, aggarwah

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1 Introduction

Today's virtual currencies, such as cryptocurrencies or other digital currencies, have significantly changed the way we view the concept of money. There is a growing interest in crypto worldwide, but without any knowledge of their projected trends, it is easy to make uneducated investments and lose their hard earned income. This demands for a way to view and analyze historical trends, and compare different cryptocurrencies. A piece of software is needed to plot these trends and give critical aggregate data to help users make educated investment decisions. Even some banks have started working with crypto clients and are developing their own form of cryptocurrency, making the topic more relevant than ever in modern day life.

2 Importance

There are an increasing number of videos on YouTube and TikTok encouraging people to invest in cryptocurrencies in order to secure their future. It has become increasingly difficult to figure out who to trust and follow. Without proper understanding of the crypto market, people are forced into trusting these videos and making their investments. This can often lead to bad, uneducated investment decisions, leading to financial losses.

There is also a substantial increase in the number of online sellers and other retailers beginning to accept Bitcoin or other cryptocurrencies as valid methods of payment. There even exists goods and services that can only be provided using this new form of payment such as non-fungible tokens or NFTs which are digital assets on a blockchain. Social media websites such as Twitter, and soon YouTube have started supporting NFT profile pictures which proves its increasing prevalence in today's economy. Furthermore, countries like El Salvador have began accepting digital currency or cryptocurrency such as Bitcoin as their legal tender due to its increasing popularity.

3 Context

Stakeholders for this software are students, educators, beginner/casual crypto traders, small firms, local businesses and crypto miners.

Cryptodash is an open-source React-based app that addresses the need to view monthly crypto prices over the last few months. However, it lacks proper documentation, testing and critical features like comparing multiple cryptocurrencies together, viewing detailed timeseries charts, filtering based on specific properties and viewing an aggregate analysis

of the trends. The scope of this project is to re-implement this software from scratch with the missing features and better documentation.