



**DAYANANDA SAGAR UNIVERSITY**

**School of Engineering  
Kudlu Gate, Bangalore-560068**

**A Project Report  
On  
“CRYPTO PROPHECY”**

**BACHELOR OF TECHNOLOGY  
in  
COMPUTER SCIENCE AND ENGINEERING**

**By:-**

Vardhit Jain	ENG18CS0311
Vikas MD	ENG18CS0321
Yuvraj Singh	ENG18CS0330
Swaraj M	ENG19CS1005
Juned Killedar	ENG19CS1008

**Under the supervision  
Of**

**Asst.Prof. Nandini K**  
**Department of CSE**  
**SoE,DSU**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING,  
SCHOOL OF ENGINEERING  
DAYANANDA SAGAR UNIVERSITY,  
(Academic year 2021 - 22)**



**DAYANANDA SAGAR UNIVERSITY**

**School of Engineering  
Department of Computer Science & Engineering**

Kudlu Gate, Bangalore –560068  
Karnataka, India

**CERTIFICATE**

This is to certify that the Phase-1 project work titled “**CRYPTO PROPHECY**” is carried out by **Vardhit Jain (ENG18CS0311)**, **Vikas MD (ENG18CS0321)**, **Yuvraj Singh (ENG18CS0330)**, **Swaraj M (ENG19CS1005)**, **Juned Killedar (ENG19CS1008)**, are bonafide students of Bachelor of Technology in Computer Science and Engineering at the School of Engineering, Dayananda Sagar University, Bangalore in partial fulfillment for the award of degree in Bachelor of Technology in Computer Science and Engineering, during the year **2021-22**.

**Prof. Nandini K**

Asst.Professor  
Dept. of CS&E,  
School of Engineering  
Dayananda Sagar University

Date:

**Dr. Girisha G S**

Chairman CSE  
School of Engineering  
Dayananda Sagar University

Date:

**Dr. A Srinivas**

Dean  
School of Engineering  
Dayananda Sagar University

Date:

**Name of the Examiner**

1.

2

**Signature of Examiner**

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We would like to thank one and all who directly or indirectly helped us in the Project work.

*Signature of Students*

## **DECLARATION**

We, **Vardhit Jain (ENG18CS0311), Vikas M D (ENG18CS0321), Yuvraj Singh (ENG18CS0330), Swaraj M (ENG19CS1005), Juned Killedar (ENG19CS1008)**, are students of seventh semester B.Tech in **Computer Science and Engineering**, at School of Engineering, **Dayananda Sagar University**, hereby declare that the phase-I project titled **“CRYPTO PROPHECY”** has been carried out by us and submitted in partial fulfilment for the award of degree in Bachelor of Technology in **Computer Science and Engineering** during the academic year **2021-2022**.

### **Student Signature**

**Name 1 :** Vardhit Jain  
**USN :** ENG18CS0311

**Name 2 :** Vikas MD  
**USN :** ENG18CS0321

**Name 3 :** Yuvraj Singh  
**USN :** ENG18CS0330

**Name 4 :** Swaraj M  
**USN :** ENG19CS1005

**Name 5 :** Juned Killedar  
**USN :** ENG19CS1008

**Place:** Bangalore

**Date :**

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## LIST OF ABBREVIATIONS

USD	United State Dollars
LSTM	Long Short Term Memory
UI	User Interface
RF	Random Forest
BTC	Bitcoin
KNN	K-Nearest Neighbor

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## ABSTRACT

Cryptocurrencies are a type of digital currency in which all transactions take place online. It is a soft currency that does not exist in the actual form of hard notes. A cryptocurrency is a network-based computerized exchange that makes imitation and double-spending pretty much impossible. Many cryptocurrencies are built on distributed networks based on blockchain technology, which is a distributed ledger enforced by a network of computers. The purpose of this research is to see how accurate it is to anticipate the direction of Bitcoin currency prices in USD. The Bit coin Pricing Index provided the price statistics. A random forest model was trained on the historical time series of Bitcoin values over multiple years to do prediction. The opening price, highest price, lowest price, closing price, volume of Bitcoin, volume of currencies, and weighted price were all taken into account when predicting the next day's closing price. To construct predictive analysis, a random forest model was developed and implemented on scikit learn frameworks. The Bit coin Pricing Index provides the price information. Bitcoin, ripple, ethereum, ethereum classic, lite coin, and other virtual currencies are examples. We concentrated our research on bitcoin, a well-known cryptocurrency. Among the various types of virtual currencies, bitcoin has a wide range of supporters, including investors, researchers, traders, and policymakers. Our purpose, to the best of our knowledge, is to implement efficient deep learning-based prediction models, specifically long short-term memory (LSTM) and RF, to deal with bitcoin price volatility and achieve high accuracy. Our research compared this time series deep learning technique to the Random forest algorithm and demonstrated its efficacy in forecasting bitcoin prices.

# **CHAPTER 1**

## **INTRODUCTION**

# CHAPTER 1

## INTRODUCTION

Virtual currencies are a type of cryptocurrency that is an impressive technological achievement in digital marketing. Virtual currencies live on, and they couldn't fully replace fiat or conventional currencies. In the current study, we are trying to show an interesting new perspective from which view of economics questions surrounding currency governance, the characteristics of money, political economy of financial intermediaries, and the nature of currency computation.

Primarily, the main challenge of bitcoin exchange rate is its high rate of price fluctuation. High price volatility implies a certain measure should be taken to predict the price of bitcoin accurately. Knowing the forecasting activity is necessary to tell about the future price of bitcoin and build trust as well as acceptance throughout the world. Influenced by a variety of factors, such as political system, public relations, and market policy of a country, can determine economical role of bitcoin and international relation of countries on different market strategies.

Lastly, doesn't have an official road map: few key challenges and developments coming up for bitcoin prediction are inconsistent, because there is no clear description of the exchange platform on which the transactions related to buying and selling are not regulated. The objective of our current study is to forecast the bitcoin price with improved efficiency using deep learning models and minimizing the risks for investors as well as policy-makers.

### 1.1 OBJECTIVE

The objective of this project is about forecasting for a bit coin data. Investing in Crypto-Currency have been increased a lot when compare to the earlier days. If we contribute to prevent the risk on investments, then it should be able to utilize for us, this study attempts to perform future forecasting on the price, by which we can control the risk. Our model will help to create future predictions which reduce the burden to the people who are continuously working on these.

## 1.2 KEYWORDS

**Bitcoin** - Bitcoin is a decentralized digital currency that can be transferred on the peer-to-peer bitcoin network. Bitcoin transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a blockchain.

**KNN** - The abbreviation KNN stands for “K-Nearest Neighbour”. It is a supervised machine learning algorithm. The algorithm can be used to solve both classification and regression problem statements. The number of nearest neighbors to a new unknown variable that has to be predicted or classified is denoted by the symbol 'K'.

**LSTM** - Long short-term memory (LSTM) is an artificial neural network used in the fields of artificial intelligence and deep learning. Unlike standard feedforward neural networks, LSTM has feedback connections.

## 1.3 EXISTING SYSTEM

To fully understand just how powerful live forecasting is, we need to look at it from the very beginning which is traditional forecasting. Traditional forecasting basically uses historical observations to estimate future business metrics like inventory requirements, budgets, revenue and asset performance. Traditional forecasting practices fail because the past does not necessarily represent the future. Machine Learning have different types of algorithms and each has its own structure of working procedure which contains different intuitions. In these intuitions, models are working on different procedures in different ways and also delivers high and less accurate. This creates a lot of constraints regarding cases, fatalities and recoveries available. The major challenge is to create a model for them so that no one have less accuracy. In this existing system we used KNN and Logistic regression which results less accuracy. Such a models won't be able to match with our requirements and it also consumes more time.

## DISADVANTAGES

- Low efficiency.
- Time consuming.
- Expensive.

## 1.4 PROPOSED SYSTEM

We propose this application that can be considered a useful system since it helps to reduce the limitations obtained from KNN and Logistic Regression. By providing support through the forecasting analysis, it can be able to generate best results for attributes without any overlap. Model involved in this application is RF.

### ADVANTAGES

- High efficiency.
- Time Saving.
- Inexpensive.
- Low complexities.

### APPLICATIONS

- To predict the outcomes of bit coin price.
- Enhances safety for investors.

## 1.5 SYSTEM SPECIFICATIONS

### H/W SPECIFICATIONS

- Processor : I3/Intel Processor
- RAM : 4GB (min)
- Hard Drive : 128GB

### S/W SPECIFICATIONS

- Operating System : Windows 7+
- Server-side Script : Python 3.6+
- IDE : Jupyter
- Libraries Used : Pandas, Numpy, Scikit-Learn

## 1.6 SCOPE

Digital cryptocurrencies, such as Bitcoin, can have a significant social impact because they enable fast transactions at low costs, providing a solution for tips,

donations, and micro-payments without the use of a banking system, and paving the way for their widespread adoption.

However, due to the influx of new investors, who are generally young and financially illiterate, crypto investments may be perceived as a 'get rich quick' type of platform. This quality has the potential to significantly deplete an investor's wealth, leading to investor distrust.

Using our product, an investor can get a clear picture of investing strategies that can save billions of dollars in real-world scenarios.

## **CHAPTER 2**

# **PROBLEM DEFINITION**

## **CHAPTER 2**

### **PROBLEM DEFINITION**

Everyone wants to increase their wealth by investing in the stock market, but with the advancement of technology and the introduction of e-money, what better method to increase your wealth than to invest in crypto currency? Because Bitcoin or any other crypto money is not influenced by any country or government, it can be invested by anyone anywhere in the world without concern of being taxed by other countries. Bitcoin's success is evaluated by its massive capitalism growth and price, which has resulted in the emergence of a variety of different crypto currencies that differ from Bitcoin in only a few aspects.



## **CHAPTER 3**

# **LITERATURE REVIEW**

## **CHAPTER 3**

### **LITERATURE REVIEW**

The primary difficulty with the bitcoin exchange rate is its fast pace of price fluctuation. Because of the high price volatility, it is necessary to take some precautions in order to effectively estimate the price of bitcoin. To predict the future price of bitcoin and to create confidence and acceptability around the world, it is vital to understand forecasting activity. A range of factors, such as a country's political system, public relations, and market policy, can influence bitcoin's economic function and international relations on various market tactics. Finally, there is no official road map. Because there is no clear description of the exchange platform on which the transactions linked to buying and selling are not controlled, a few important problems and advances for bitcoin prediction are in line. The goal of this research was to increase the accuracy of bitcoin price forecasting using deep learning models while reducing risks for investors and policymakers. In this study, they discovered that whereas GRU predicted the outcomes faster, LSTM's results were more accurate. [1]

The most important disruption currently occurring in all economies and financial institutions is the digital transformation of economies. At an unprecedented rate, the world's economies and financial institutions are becoming digital. According to a recent report, the digital economy will be worth 25% (23 trillion USD) in 2025, comprising of both tangible and intangible digital assets. The distributed ledger technology (DLT), whose most well-known use is the cryptocurrency Bitcoin, is the most modern technology for establishing and spending digital assets. As a result of these developments, blockchain technology has established itself at the crossroads of Fintech and next-generation networks.

The price volatility of non-tangible digital assets, particularly cryptocurrencies, is a major concern. From April 1, 2013, to December 31, 2019, the price of Bitcoin (BTC) has fluctuated significantly. During this time, BTC prices have been extremely volatile. The price grew by 1900 percent in 2017, but then dropped by 72 percent in 2018. Prior to 2013, there was little public interest in Bitcoin, and its use in virtual transactions and values were modest.[2]

Due to price volatility and dynamism, cryptocurrency prices are difficult to forecast. Hundreds of cryptocurrencies are used by clients all around the world. We'll look at three of the more popular ones in this paper. As a result, the study intends to do the following by employing deep learning algorithms, which may uncover hidden patterns in data, integrate them, and make considerably more accurate predictions:

- A review of the many available systems for predicting the prices of BTC, ETH, and LTC coins is presented.
- To reliably anticipate the prices of cryptocurrencies, AI algorithms such as LSTM, bi-LSTM, and GRU are used.
- For prediction, Fbprophet, a machine learning algorithm, and long short-term memory (LSTM), a deep learning method, were used.
- Evaluating the proposed hybrid models for Bitcoin, Ethereum, and Litecoin utilising evaluation matrices such as RMSE and MAPE.

The main idea behind these models was to achieve a reliable prediction model that investors can rely on based on historical cryptocurrency prices. [3]

Due to its recent price boom and breakdown, Bitcoin has attracted a lot of attention from the media and the general public. As a result, numerous academics have used various machine learning approaches to explore various elements that affect the Bitcoin price and the patterns behind its swings. In this paper, they have investigated and analyse multiple state-of-the-art deep learning methods for Bitcoin price prediction, including a deep neural network (DNN), a long short-term memory (LSTM) model, a convolutional neural network, and a deep residual network, as well as their combinations. Although LSTM-based prediction models outperformed the other prediction models in terms of Bitcoin price prediction (regression), DNN-based models outperformed the others in terms of price ups and downs prediction (classification). [4]

Due to the significant variation of solo mining, the number of users joining the most well-known Bitcoin mining pools is growing. Users pooled together have a better chance of generating the next block in the Bitcoin blockchain, lowering the variance and earning the mining reward. Another tendency toward centralization is establishing mining farms with powerful mining resources and quick processing

capacity. This pattern clearly shows that Bitcoin's pure, decentralised protocol is moving toward centralization in its distribution network, where any form of centralization should be carefully addressed owing to the 51 percent attack. The centralization that bitcoin cloud wallets cause by allowing new users easy access to the bitcoin network should not be overlooked. Because of the hackable applications and websites, this could generate numerous security vulnerabilities with bitcoin technology. The decentralised network of bitcoin, as well as numerous price prediction systems, have gotten a lot of attention. They have conducted a study of the technology that underpins bitcoin's network as well as the numerous machine learning forecasting algorithms in this research paper. They used the ARIMA model to predict bitcoin prices using data from the bitcoin blockchain from April 28th, 2013 to July 31st, 2017, which is publicly available on <https://coinmarketcap.com>. [5]

## **CHAPTER 4**

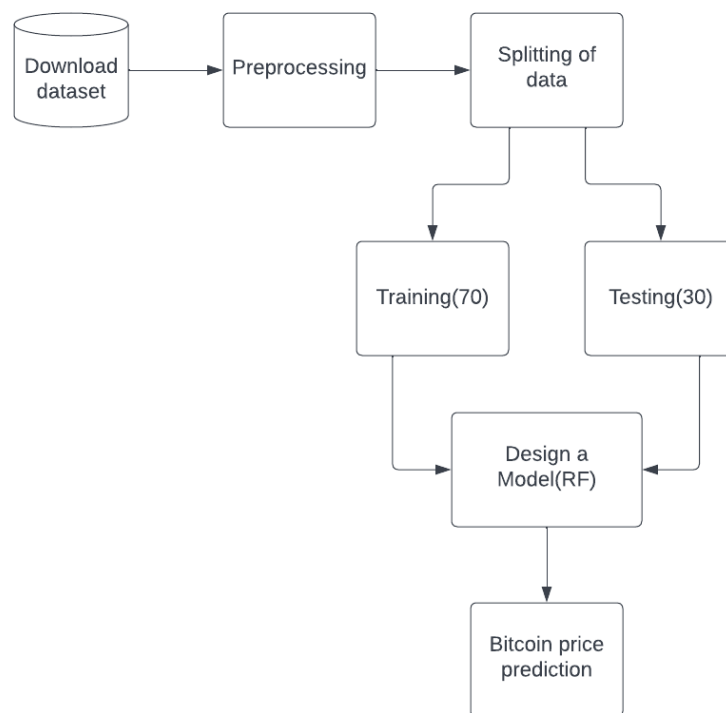
### **PROJECT DESCRIPTION**

## CHAPTER 4

# PROJECT DESCRIPTION

### 4.1 PROPOSED MODEL

The proposed model is a courageous and ingenious attempt to integrate the current forms of generativism and associationism into one system.



**Fig 4.1 : Block diagram of our model**

- Data collection from kaggle website.
- Data preprocessing to check any missing or null values.
- Feature selection to select the features which are highly contributing in the classification
- Dividing the whole dataset into 70-30 as a training and testing set.

## **CHAPTER 5**

# **REQUIREMENTS**

# CHAPTER 5

## REQUIREMENTS

### 5.1 FUNCTIONAL REQUIREMENTS

#### Datasets

Kaggle dataset

#### Modules

**Matplotlib** is a plotting library for the Python programming language and its numerical mathematics extension NumPy. It provides an object-oriented API for embedding plots into applications using general-purpose GUI toolkits.

**NumPy** is a library for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with a large collection of high-level mathematical functions to operate on these arrays.

**Scikit-learn** is a free software machine learning library for the Python programming language. It features various classification, regression and clustering algorithms including support-vector machines.

**Sqlparse** is a non-validating SQL parser for Python. It provides support for parsing, splitting and formatting SQL statements.

**Pytest** is a software testing framework based on the Python programming language. It can be used to write various types of software tests, including unit tests, integration tests, end-to-end tests, and functional tests. Its features include parametrized testing, fixtures, and assert re-writing.

**Pandas** is a software library written for the Python programming language for data manipulation and analysis. In particular, it offers data structures and operations for manipulating numerical tables and time series.



## 5.2 NON-FUNCTIONAL REQUIREMENTS

- Usability: The client acknowledged typical nearly the buyer interfaces and committed to ask for ambush pressure in relocating to a unique framework with an other condition.
- Reliability: The progressions made by the Programmer ought to be obvious both to the Project pioneer and in addition to the Test design.
- Security: Counting bugs following the framework must give important security and must secure the entire procedure from slamming.
- Performance: The framework will be facilitated on a solitary web server with a solitary database server out of sight; consequently execution turns into a note worthy concern.
- Portability: This is required when the web server, which is facilitating the framework stalls out because of a few issues, which requires their framework to be taken to another framework.
- Re-usability: The framework ought to be separated into such modules that it could be utilized as a piece of another framework without requiring a lot of work.

## **CHAPTER 6**

# **METHODOLOGY**

## CHAPTER 6

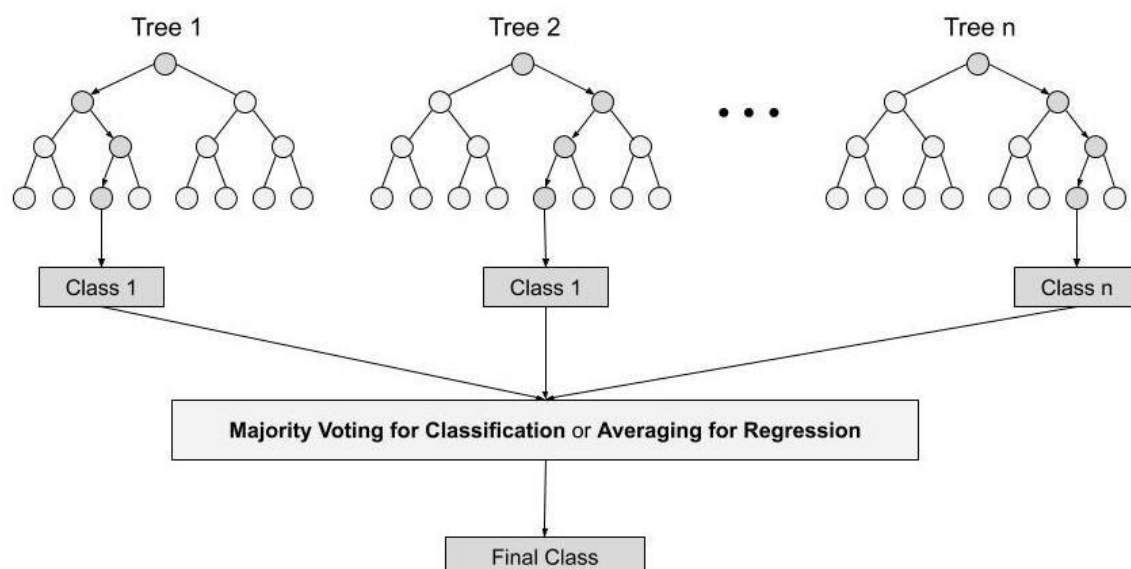
# METHODOLOGY

### 6.1 Method

- This model is built on Random Forest.

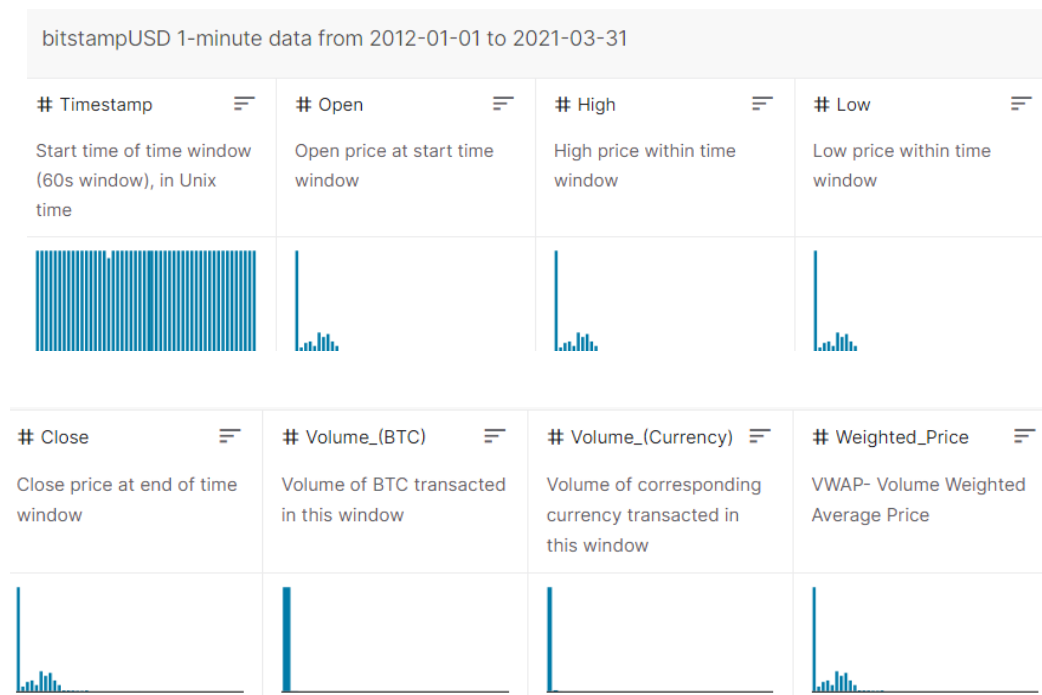
Random forest is a Supervised Machine Learning Algorithm that is used widely in Classification and Regression problems. It builds decision trees on different samples and takes their majority vote for classification and average in case of regression.

One of the most important features of the Random Forest Algorithm is that it can handle the data set containing continuous variables as in the case of regression and categorical variables as in the case of classification. It performs better results for classification problems.



**Fig 6.1: Random forest working**

The data set used in this project is collected from Kaggle website <https://www.kaggle.com/datasets/mczielinski/bitcoin-historical-data>.



**Fig 6.2: Kaggle Dataset column names**

- The Kaggle dataset from the website is consisting of many rows and column in which some of the rows are null.

**Table 6.1: Missing Datafields**

Timestamp	Open	High	Low	Close	Volume_(BTC)	Volume_(Currency)	Weighted_Price
1325317920	4.39	4.39	4.39	4.39	0.45558087	2.000000019	4.39
1325317980	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318040	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318100	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318160	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318220	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318280	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318340	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318400	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1325318460	NaN	NaN	NaN	NaN	NaN	NaN	NaN

0		N	N				
132531852	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531858	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531864	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531870	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531876	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531882	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531888	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531894	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				
132531900	NaN	Na	Na	NaN	NaN	NaN	NaN
0		N	N				

- We have filtered out such data out of the dataset. Hence we get the required dataset for our project.
- Further the resultant dataset is divided into 65% of training dataset and 35% of testing dataset.
- For the Bitcoin price prediction we have used SKlearn RF algorithm from scikit-learn module

### **sklearn.ensemble.RandomForestClassifier**

- The Random forest classifier creates a set of decision trees from a randomly selected subset of the training set. It is basically a set of decision trees (DT) from a randomly selected subset of the training set and then It collects the votes from different decision trees to decide the final prediction.
- PyCharm is the IDE which we have used for the deprecation of the project.

## **CHAPTER 7**

# **TESTING AND RESULTS**

## CHAPTER 7

### TESTING AND RESULTS

#### 7.1 FRONT END

This is the homepage of our website through which we can navigate to other pages like sign in and sign up pages.



Fig 7.1: Landing page

The homepage consists of user profile, portfolio and logout option.

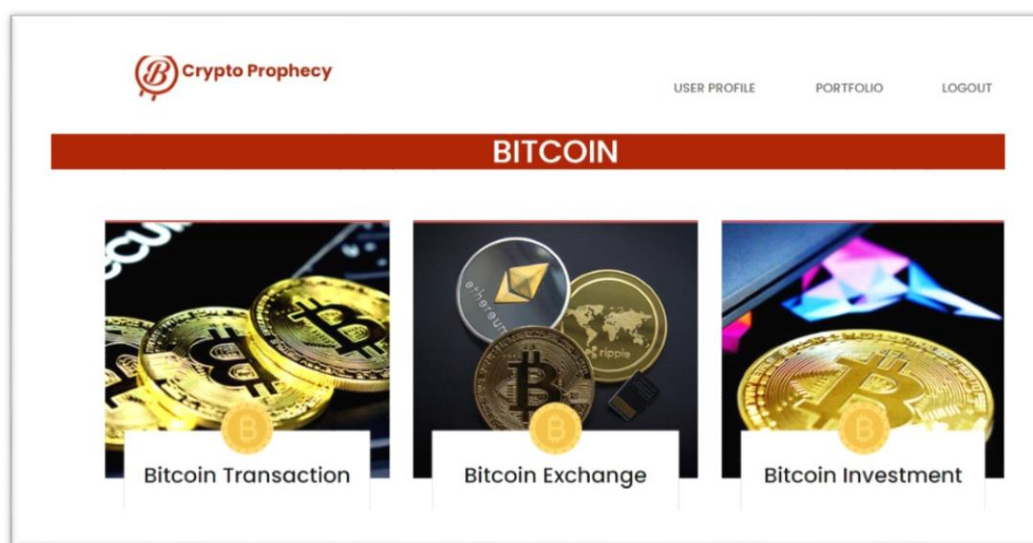
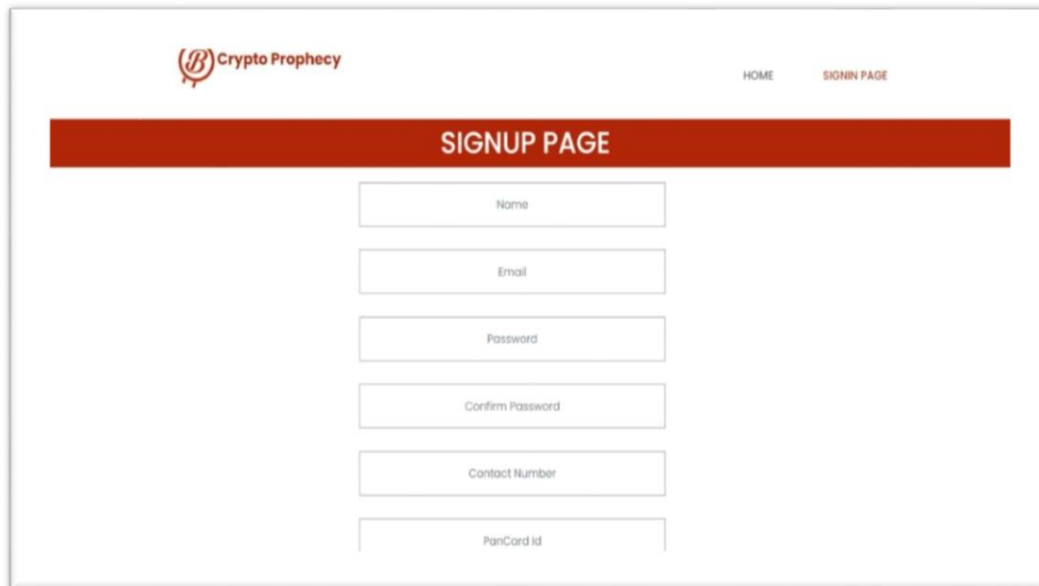


Fig 7.2: Homepage

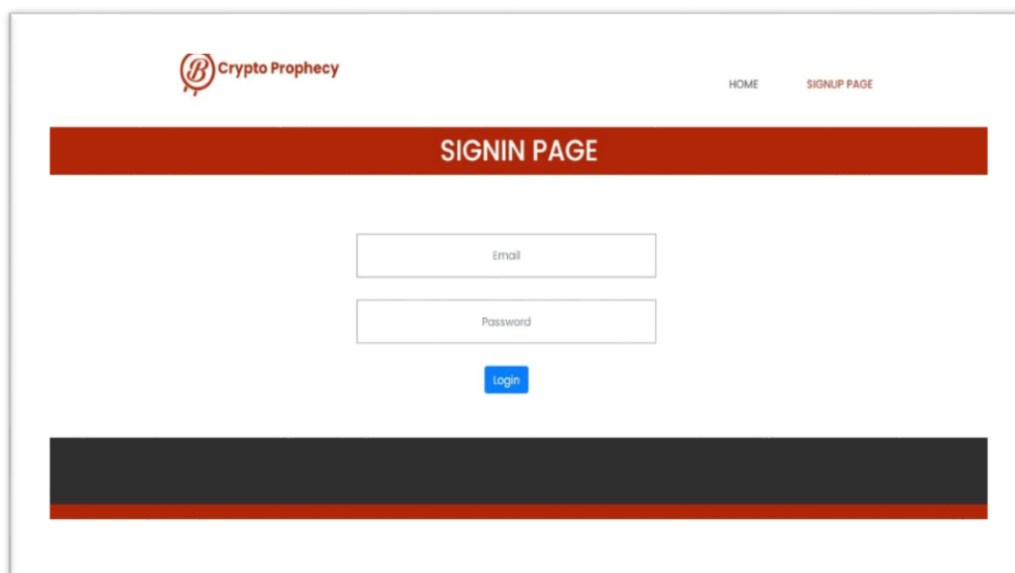
This is the signup page where first time users have to fill up their details to continue to the bitcoin transaction or prediction. This values will be stored in the backend.



The screenshot shows the 'SIGNUP PAGE' of the 'Crypto Prophecy' application. The page has a white background with a red header bar at the top containing the 'Crypto Prophecy' logo and navigation links for 'HOME' and 'SIGNIN PAGE'. Below the header, a red banner displays 'SIGNUP PAGE'. The form consists of six white input fields with red borders, stacked vertically: 'Name', 'Email', 'Password', 'Confirm Password', 'Contact Number', and 'PanCard Id'.

**Fig 7.3: Signup Page**

The signin page is for the existing users to continue their transaction and prediction on bitcoins.

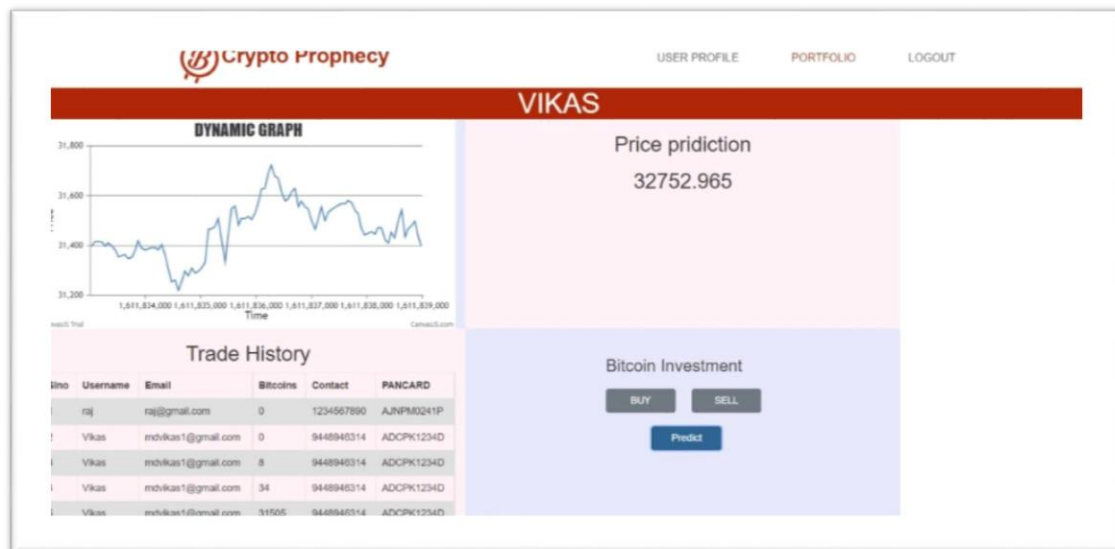


The screenshot shows the 'SIGNIN PAGE' of the 'Crypto Prophecy' application. The page has a white background with a red header bar at the top containing the 'Crypto Prophecy' logo and navigation links for 'HOME' and 'SIGNUP PAGE'. Below the header, a red banner displays 'SIGNIN PAGE'. The form consists of two white input fields with red borders, stacked vertically: 'Email' and 'Password'. Below these fields is a blue 'login' button. At the bottom of the page, there is a dark grey footer bar with a red border.

**Fig 7.4: Signin Page**

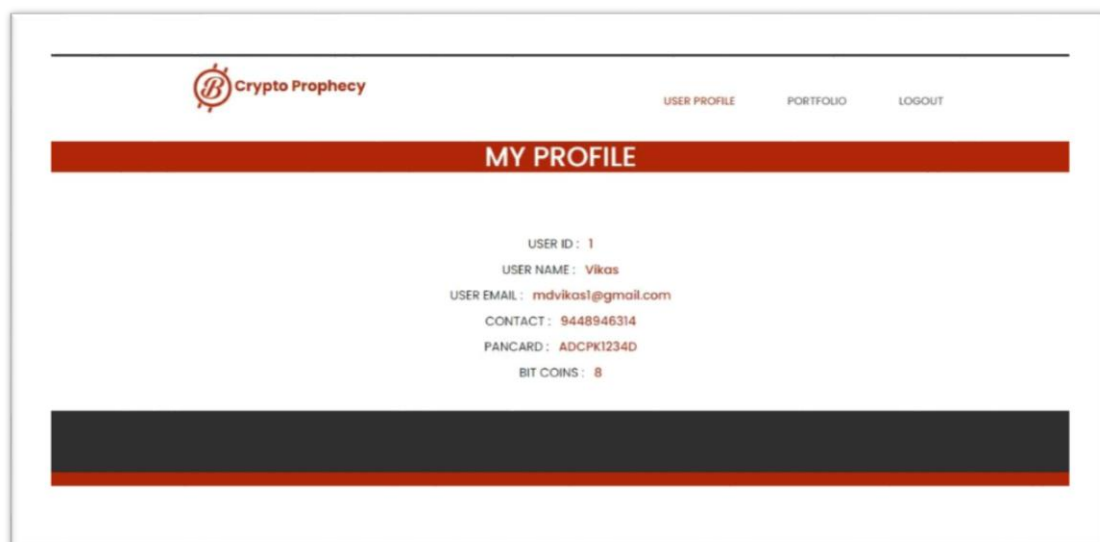


This is the dashboard page, where users can predict, buy, and sell bitcoins, as well as view their trade history. The price at which users purchased bitcoin is recorded in the trade history. We've also included a dynamic graph with the most recent real-time bitcoin price quote.



**Fig 7.5: Prediction Page**

This is the portfolio page where the user details is stored with the userID, user name, email, contact number, pancard details and current bitcoin stats of the user.



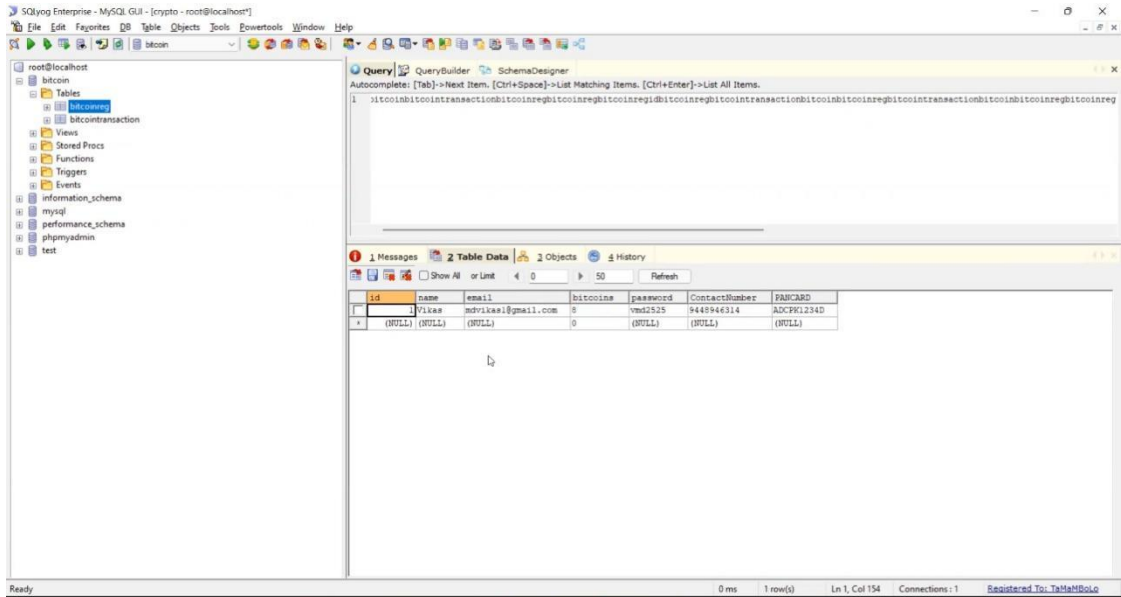
**Fig 7.6: Portfolio Page**

The screenshot displays a web application interface with three main sections:

- Top Left:** A line chart showing price fluctuations over time. The y-axis ranges from 31,000 to 31,200. The x-axis is labeled 'Time' with values from 1,611,834,000 to 1,611,839,000. The chart is titled 'Trade History'.
- Top Right:** A section titled 'Bitcoin Investment' with buttons for 'BUY', 'SELL', and 'Predict'.
- Bottom Left:** A table showing trade history with columns: SNo, Username, Email, Bitcoins, Contact, and PANCARD.
- Bottom Right:** A section titled 'Accuracy' showing a value of 0.8651059085841695.

SNo	Username	Email	Bitcoins	Contact	PANCARD
1	raj	raj@gmail.com	0	1234567890	AJNFMC0241P
2	Vikas	mdvikas1@gmail.com	0	9448940314	ADCPK1234D
3	Vikas	mdvikas1@gmail.com	8	9448940314	ADCPK1234D
4	Vikas	mdvikas1@gmail.com	34	9448940314	ADCPK1234D
5	Vikas	mdvikas1@gmail.com	31505	9448940314	ADCPK1234D

Accuracy : 0.8651059085841695



## **CONCLUSION AND FUTURE WORK**

## CONCLUSION

All in all, predicting a price-related variable is difficult given the multitude of forces impacting the market. Add to that, the fact that prices are by a large extent dependent on future prospects rather than historic data.

Bitcoin is the most popular decentralized way of virtual currency which has a great role in the free market economy and avoids the intermediary of another third party between customers. The main objective of our study is to forecast the bitcoin price with improved efficiency and minimizing the risks for the investors as well as policy-makers.

Anyway, maybe the data we gathered for Bitcoin, even though it has been collected through the years, might have become interesting, producing historic interpretations only in the last couple of years.

Furthermore, a breakthrough evolution in peer-to-peer transactions is ongoing and transforming the landscape of payment services.

## **FUTURE WORK**

As avenues for future research, we would like to emphasise that our method can be extended to alt-coins, with a particular interest in Ethereum, Litecoin, Ripple, and so on. In the future, we will place a greater emphasis on prediction accuracy, and with that accuracy, we will place a greater emphasis on a limit order, which is an order to buy or sell a security at a specific price or better. Support Vector Machine regression, KNN regressor In the future, we may use these algorithms to improve cryptocurrency accuracy.

## REFERENCES

- [1] Temesgen Awoke , Minakhi Rout , Lipika M and Suresh Chandra Satapathy. “Bitcoin Price Prediction and Analysis Using Deep Learning Models” 2020.
- [2] Mohammed Mudassir, Shada Bennbaia, Devrim Unal & Mohammad Hammoudeh., “Time-series forecasting of Bitcoin prices using high-dimensional features: a machine learning approach,” 2020.
- [3] Mohammad J. Hamayel and Amani Yousef Owda. “A Novel Cryptocurrency Price Prediction Model Using GRU, LSTM AND BI-LSTM Machine Learning Algorithms” 2021.
- [4] Suhwan Ji, Jongmin Kim and Hyeonseung Im “A Comparative Study of Bitcoin Price Prediction Using Deep Learning” .
- [5] M. Poongodi, V. Vijayakumar , Naveen Chilamkurti “Bitcoin price prediction using ARIMA model”.