



# Coin Vote and Promote: Cryptocurrency Voting and Promoting System

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**Abstract :** The successful completion of any project requires guidance and help from several people. I take immense pleasure in expressing wholehearted thanks to all the officials who guided me all the way through my training in the organization. I therefore take my opportunity to express my profound sense of gratitude to all those who extended their wholehearted help and support to me in carrying out the project work. I express my deep gratitude to those who provided me an insight into the working that enhanced my knowledge and with their support and cooperation this report has taken a presentable form.

## 1. INTRODUCTION

### 1.1 Problem Statement:

As we all know that the demand for crypto currency has grown a lot recently in our country. And the value of the currency is determined by the scale of the community involved with it. Many people shifted from stock market and started investing in Digital currencies. People need something that can help them make this process easier.

### 1.2 Objective:

Coin Vote and Promote is a live cryptocurrency info and voting software. Our web- Application's goal is to provide an environment where Users can trade without the fear of any scam or frauds.

### 1.3 Feasibility Study and Significance:

It is a web-based application which provides real-time information about cryptocurrencies and allows users to vote for their favorite coins. When a new user comes to our website, he/she can easily determine which coin people are currently preferring or which coin's community/userbase is currently growing from the no. Of votes, so if they want, he or she can invest in that coin.

### 1.4 Novelty Of Project:

- Users can know which are the topmost voted coins currently in the community.
- Search about the coins they want to know.
- Which coins have gained value in 24 hours and by how much percentage.
- Which coins have lost their value in 24 hours and by how much percentage.
- Users vote for their favorite coins.
- If any user doesn't find his/her coin, they can request their coin to be added.
- Users can link their wallet to check the balance

### 1.5 Stack Used:

The MERN stack era turned into a device used to create a Cryptocurrency Voting & Promoting system. It's still one of the sturdy full-stack technologies used to increase the efficiency of most trafficking websites. With the growing potential and demand for web operations, such systems must incorporate adaptable designs and web-based methodologies into their operations. While many systems still use rich client architectures, our systems use web-based front ends that simply require a regular browser environment to operate. This paper appears at the 4 imply stack additives (MongoDB, ExpressJS, ReactJS & NodeJS) and the way they move nicely collectively to build an adequate inventory management system.

## 2. PROBLEM

### 2.1 Bitcoin and Cryptocurrency: Challenges, Opportunities and Future Works

Bitcoin and other prominent cryptocurrencies have gained much attention in the last several years. Globally known as



digital coin and virtual currency, this cryptocurrency is gained and traded within the blockchain system. Cryptocurrencies are here to stay. The future of trading lies well with new emerging technologies that can benefit mankind. That, users, and industry player can evaluate whether cryptocurrency can benefit or harm them. This paper has reviewed the opportunities in cryptocurrency in terms of its security of its technology, low transaction cost and high investment return. For the challenges, the discussion revolved around law and regulation, high energy consumption, possibility of crash and bubble, and attacks on network. Looking at the positive outlook of the blockchain technology and the prospect of government in regulating cryptocurrency, more in-depth studies on several aspects of cryptocurrency should be done. Taking the opportunities from part of the pie in cryptocurrency and blockchain technology can be beneficial for researchers.

## 2.2 Cryptocurrency: An Overview on Its Impact on Indian Economy

Crypto currency is such an invention which has become a global phenomenon. Earlier RBI warned the Indians from using cryptocurrency as it is associated with money laundering and terrorist financing. However, cryptocurrency is a modern technology which needs to be looked forward to. Even though there has been no regulatory response from the Indian government, the number of investors in crypto coins is increasing rather swiftly over the last few years. Indian government should take responsible steps now to regulate such currency as its user in India is rapidly growing. Future of cryptocurrency in India looks promising and there is ray of hope.

## 2.3 The Growth of Cryptocurrency in India: Its Challenges & Potential Impacts

Cryptocurrency offers a new, effective, and attractive model of payment methods that can boost companies and operators' revenues. It also provides an alternative method of payment, apart from real money, that enables users to make financial activities easy. Moreover, the confidence and trust rate of using crypto currency is noticeably high as it can be seen in several cases that have been stated in this paper besides the survey results. However, users have not realized the full picture of using cryptocurrency. In fact, many cryptocurrency forms do not deserve that much trust yet. Until cryptocurrency is being well regulated and controlled, users need to take extra precautions of using such virtual money. The Cryptocurrency field creates a lot of research opportunities, and many studies need to be done to provide scientific content. The correlation between the real financial laws and the legislative status of implementing cryptocurrency platform needs to be studied further from various perspectives. The further research scope can be extended to developing use-cases for applications of cryptocurrency across different sectors in India.

## 3. SYSTEM REQUIREMENTS

### 3.1 User Classes and Characteristics

There are 3 Types of Users:

Regular User: These users can simply vote for their favorite coins and can make requests for the coin to be added.

Admin User: Admin Users have high authority and can:

- Add or remove Sub-Admin users.
- View or ban Regular users.
- View, add, edit, or remove coins

Sub-Admin User: They also have high authority, but not more than Admin users. They have the same abilities as that of Admin Users, but they can't add or remove Admins or Sub-Admins.

System Features

Features provided by the coin trails website: -

#### 3.2.1 Sign-Up

Description and Priority

Users Need to Register themselves to vote for their favorite coins.

Stimulus/Response Sequences

Upon entering the sign-up page, users need to enter details necessary for signing them up. After Signing, Users are then registered as Regular Users.

#### 3.2.2 Login

Description and Priority

Logging in allows the website to recognize the user for them to gain Regular User's authority.

Stimulus/Response Sequences

After logging in the user will be redirected to the home screen, where they can vote search or create coin details.

Functional Requirements



REQ-1: User needs to be registered before logging in.

REQ-2: User needs to be an Admin if they have not signed in before.

**3.2.3 Latest Crypto Currency Stats**

Description and Priority

Users can search for coins, vote for them, view topcoins (for today and all time) and their prices.

Functional Requirements

REQ-1: Only a registered User can vote.

**3.2.4 Submit Coin**

Description and Priority

Users can submit a request to the admins in case they can't find any coin information.

Functional Requirements

REQ-1: Only a registered User can submit a request.

**3.2.5 Super Admin**

Description and Priority

Admin Users have high authority and can: -

- Add or remove Sub-Admin users.
- View or ban Regular users.
- View, add, edit, or remove coins

**3.2.6 Voting**

Description and Priority

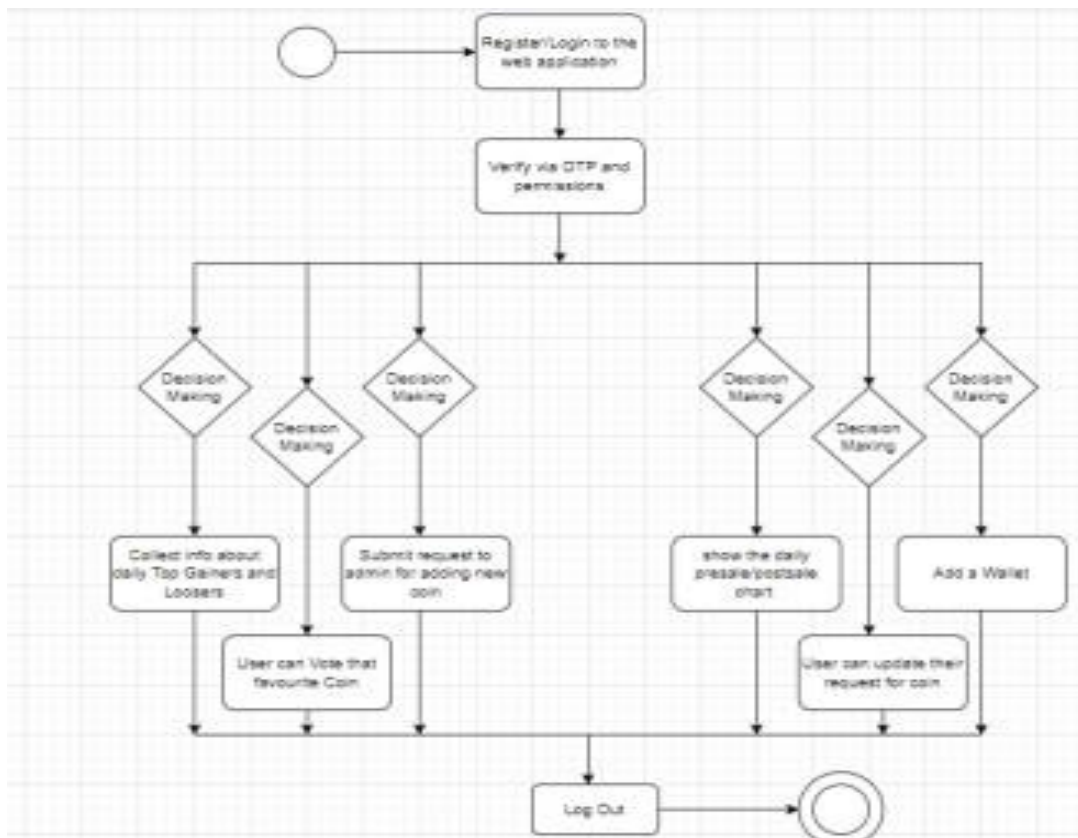
Users can vote for their favorite coin which helps new users to know which coins are currently popular.

Functional Requirements

REQ-1: Only a registered User can vote.

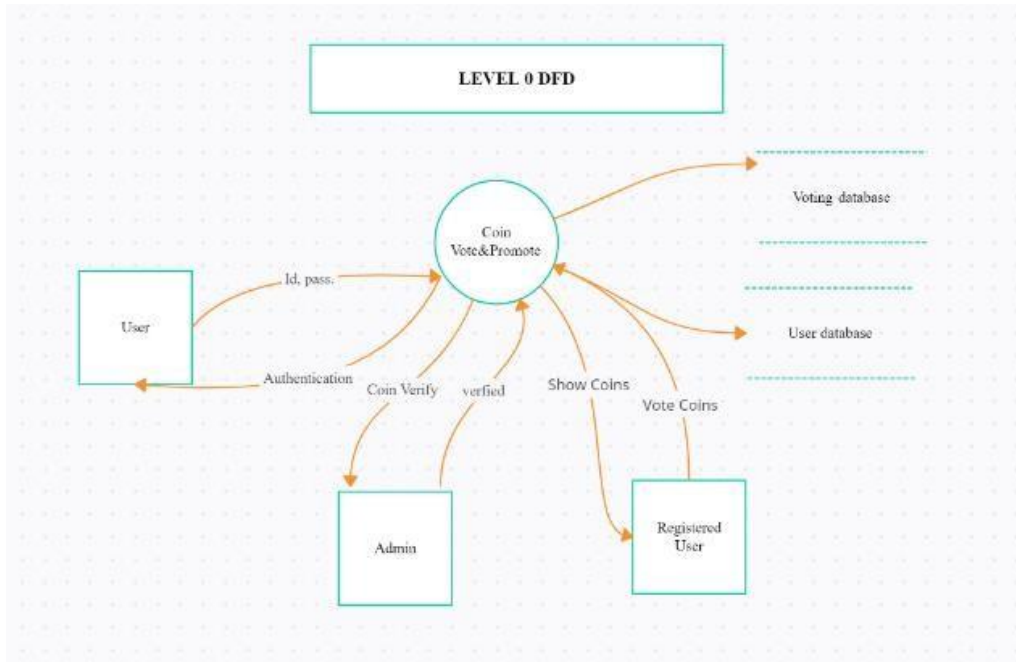
**4. SYSTEM DESIGN**

**4.1 Activity Diagram**



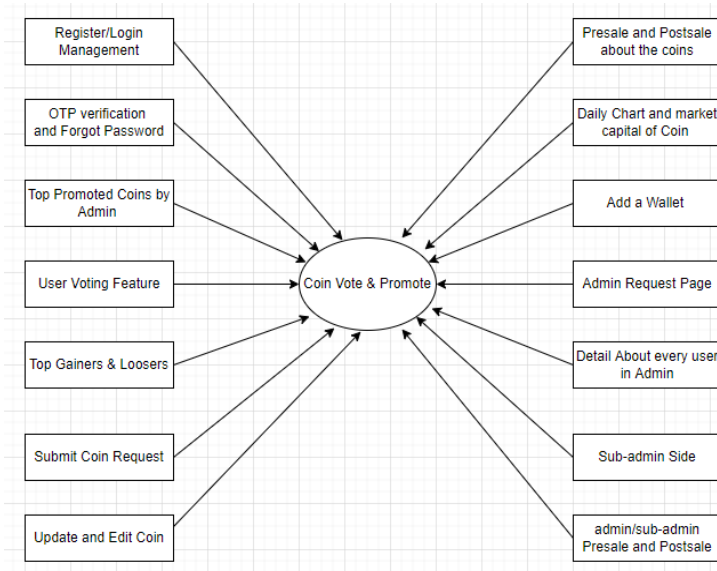


4.2 Data Flow Diagram



Zero-Level DFD Diagram

This is Zero level DFD of Coin Vote & Promote, where we have elaborated the high-level process of the application. This is the basic overview of the whole application or process being analyzed or modelled. It is designed to be an at-a-glance view of Authentication, coin verification, coin voting. It should be easily understood by the audience.



First-Level DFD Diagram

4.2.1 Register:

Users Need to Register themselves to vote for their favorite coins. Upon entering the sign-up page, users need to enter details necessary for signing them up. After Signing, Users are then registered as Regular Users.

4.2.2 Login:

Logging in allows the website to recognize the user in order for them to gain Regular User's authority & where they can vote search or create coin details.



#### 4.2.3 Home Page:

Users can search for coins, vote for them, view top coins (for today and all time) and their prices. Only a registered User can vote. There is a Top PromotedCoins List added by Super Admin and the other section is about voting and general stats about Top Gainers and Losers.

#### 4.2.4 Submit Coin Request:

Users can submit a request to the admins in case they can't find any coin's information.

#### 4.2.5 Super/Sub Admin:

Admin Users have high authority and could: -

- Add or remove Sub-Admin users.
- View or ban Regular users.
- View, add, edit, or remove coins.

#### 4.2.6 Add Wallet:

Broadly speaking, a blockchain wallet is a digital wallet that **allows users to store, manage, and trade their cryptocurrencies**. Blockchain Wallet is also the name of a specific wallet service provided by the company Blockchain. This is an E-wallet that allows individuals to store and transfer cryptocurrencies.

## 5. FORMULATION OF WEB APPLICATION

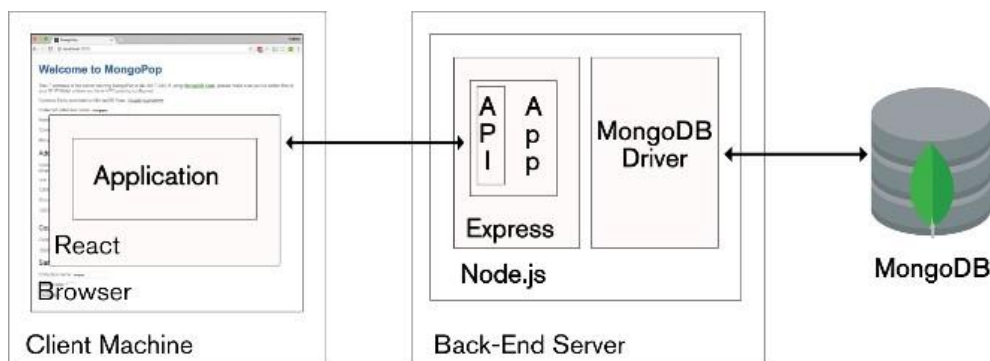
Stack web development tasks to analyses and understand MERN's current technologies dynamics and challenges (Mongo Db, ExpressJs, ReactJs, NodeJS). MERN Technologies and their ease- of - u s e properties for the modern developers are used to make FULL-STACK architecture viable. The MERN stack consists of MongoDB as a database, Express as a server system, React as the front-end, and NodeJS as a JavaScript server-side environment. MongoDB is a data storage layer that is more adaptable and adaptive. Node.js provides a better nexus for running the server, while Express.js helps to standardize the website development. ReactJS provides a simple approach to adding interactive functions and AJAX-driven rich components to client-side applications. This all comes together to create a transparent, logical system transporting data from the user to the disc farm and back again. In many systems, MERN is extremely easy for both the back end and the front end, but the distinct languages for the front and back ends are written in a single language for server and client side execution.

## 6. ARCHITECTURE OF MERN STACK

When built one on top of the other, the MERN architecture is made up of four separate JavaScript technologies. The architecture is built such that each component does a specific purpose while working in tandem with the other layers in the stack to reach a common goal. In the MERN architecture as depicted in the picture below, the client initiates requests, which flow from the first to the final layer. Appropriate replies to those requests then flow back up to the client through all the levels.

The user interface, which is designed using the React frontend framework, is the first point of contact for the client. The server-side engine, Node.js, receives requests made through the interface. After that, the Express.js middleware framework sends a request to the database

MongoDB. Express.js gets the answer from the database in the form of data. Finally, Node.js returns this response to the client via the user display:





### 6.1 User Interface:

For any application, clarity is essential. When it comes to Cryptocurrency system, the data comes in JSON format, and dealing with such a quantity of data can be disorganized. Not just the backend, but also the frontend on the client's side, has troubles. Such problems culminate by using more stable and single-language scripting framework stacks. Such stacks allow a code to run from client to server.

Using ReactJS we will initially set up a UI focused design which is excellent for platform support. This component-based framework is fast & boost productivity facilitating further maintenance and react is such a frontend framework for creating single-page applications (SPAs) that load in a single page.

### 6.2 Database:

The previous database storage methods are inconvenient. Shopkeepers, for example, use khatabooks to keep track of their daily sales, more goods are available in bigger quantities, tracking coins based on daily basis becomes more complicated and time costly for the merchant. To deal with such difficulties, RDBMS came into action. It is a database management system that allows data to be stored in a more flexible manner. RDBMS guarantees that data is saved in the form of rows and columns, limiting redundancy and replication. Developing further from it, here we are using MongoDB to create the database for this application. MongoDB characterizes a Web-based application as a database that holds data. MongoDB is a database that focuses on documents. MongoDB Inc. created the database, which is categorized as NoSQL. It's a free and open-source database that works with schemas and JSON-like documents.

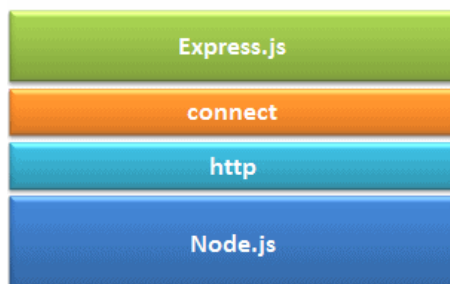
MongoDB is an application data platform built on many basic architectural principles that helps you fulfil the needs of modern apps. The document data architecture provides a straightforward yet powerful query interface, which allows developers to construct transactional, operational, and analytical applications quickly and easily. A multi-cloud global database that gives developers the freedom to operate their apps anywhere and the flexibility to shift between private and public clouds as needs change — all without changing a single line of code. A unified experience for contemporary apps that spans the cloud to the edge, including database, search, and the data lake, with extensive and integrated developer services.

It offers several unique characteristics that set it apart from other databases in terms of application and design. This has a complicated structure and is hence widely used to build scalable systems.

### 6.3 Backend Processes: NodeJS & ExpressJS:

This article intends to offer a framework for application developers that includes software packages such as Node.js and MongoDB, as well as APIs that allow them to connect their application to their database without having to worry about server-side code. Additionally, these APIs may be used to construct drivers for a variety of platforms, including Android, .NET, and iOS. An application developer should be able to link their apps and websites to a database server in a more comfortable and straightforward manner. This backend server can handle many user requests and has a high concurrency rate. It should also take data privacy and security into mind. In JavaScript, Node.js is a relatively new and popular technology.

It's a framework for simply creating fast, scalable network applications based on Chrome's JavaScript engine. We want to create a framework for a backend server for our database that can help quickly link our frontend with the MongoDB using Node's core capabilities and connecting it with one of the quickest and scalable databases, MongoDB. Express.js on the other hand is a Node.js web framework. It has several capabilities that make web application development faster and easier than it would be if simply Node.js was used. Express.js is built on the connect Node.js middleware module, which leverages the http module. As a result, any connect-based middleware will function with Express.js. It comes with built-in HTTP server libraries, allowing developers to design their own web server as well as highly scalable online applications. For each request, Node.js produces an event with event handlers. The association handler is queued for execution when an I/O action happens, and a callback function emits an event when the I/O operation is done. As a result, NodeJS handles I/O asynchronously and doesn't stop script execution, enabling the event loop to react to additional requests. After the Node module has been added into the current script, it gives a public API that may be accessed.





ExpressJS helps to develop Node.js web applications quickly and easily. It's simple to set up and customize. It allows the creation of application routes using HTTP methods and URLs. It also includes several middleware modules that can be used to execute additional requests and responses activities. Simple to interface with a variety of template engines, including Jade, Vash, and EJS, it allows you to specify a middleware for handling errors.

#### 6.4 Blockchain Technology:

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An asset can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk, and cutting costs for all involved. Why blockchain is important: Business runs on information. The faster it's received and the more accurate it is, the better. Blockchain is ideal for delivering that information because it provides immediate, shared and completely transparent information stored on an immutable ledger that can be accessed only by permissioned network members.

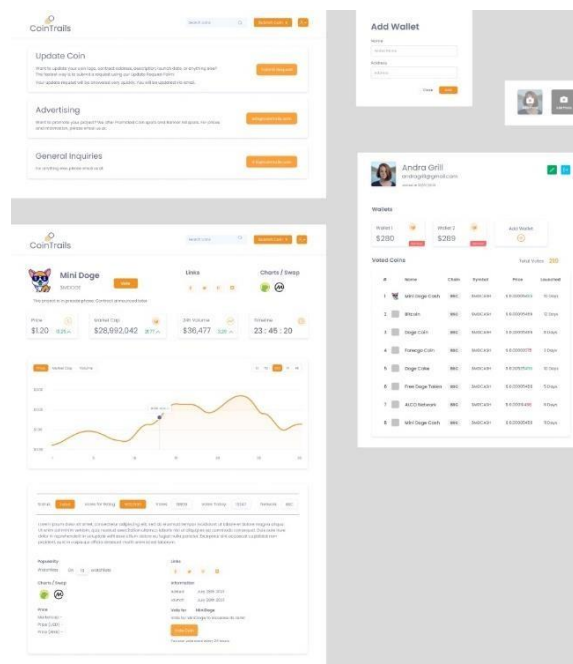
### 7. DISCUSSION

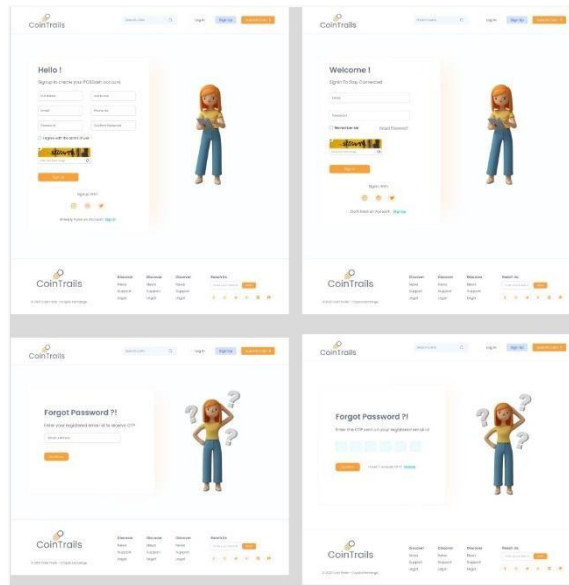
Due to the lack of implementation of MongoDB, ExpressJS, ReactJS, and Node.JS (MERN stack) new technologies as a single stack, the importance of this study becomes apparent when components communicate internally using a single common language. This will negate the advantages of utilizing the same language throughout the stack. MERN is cost-effective in terms of developer experience, speed, flexibility, M-V-C support, scalability, open source, and cloud deployment. When compared to other technologies, these advantages are greater. Developers may simply install apps directly on the server using Node.js, eliminating the requirement for a separate standalone server. The overheads associated with the client-server design are reduced as a result.

The practical experience in designing the emailingsubsystem utilizing MERN stack technologies has been described in this paper. The new idea highlights the differences in the stack of the most prevalent web application technologies, such as LAMP and earlier technologies, that have been noticed. When compared to alternative options, these components provide better interaction convenience. The study's user interface findings revealed that users may simply connect with one another from any location. The software provides users with flexibility, simple interactions, and the needed level of service.

The study found that apps built using the MERN stack technology are simple to create, install, and use, as well as being highly engaging.

### 8. RESULTS/OUTPUTS AND TESTING





## Add Wallet

Name

Address

Close Add

Not Specified

Promoted

Rank	Name	Chain	Symbol	Market Cap	Price	Volume	24h %
1	Mini Doge	MCD	MCD	\$1,000,000	\$1.00	\$100,000	100%
2	Shiba	SHIB	SHIB	\$1,000,000	\$0.01	\$100,000	100%
3	Doge Coin	DOGE	DOGE	\$1,000,000	\$0.01	\$100,000	100%
4	Shiba Inu	SHIB	SHIB	\$1,000,000	\$0.01	\$100,000	100%
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Others

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Layers

Rank	Name	Chain	Symbol	Market Cap	Price	Volume	24h %
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Not Specified

Promoted

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CoinTrails

Search

Submit Coin

Mini Doge \$MDOGE

Links

Charts / Swap

This project is in presale phase. Contract announced later.

Status: Added Votes for listing: 250/1000 Votes: 12889 Votes Today: 10347 Network: BSC

Information

Added: July 28th 2021

Lastest: July 28th 2021

Vote for MiniDoge

Vote for MiniDoge to increase its rank

Vote

You can vote twice every 24 hours.





## 9. CONCLUSION/RECOMMENDATIONS

A Web Application where Users can check new projects, upcoming IDO, presale etc. who takes interest in crypto coins and are likely to invest in them. These users can simply vote for their favorite coins and can make requests for the coin to be added. Users can know which are the topmost voted coins currently in the community, so indirectly we are promoting cryptocurrencies in India. When the userbase increases of any coin, the userbase of our website also increases!!! Which will ultimately lead to our profit. Easy to handle, User Friendly & interactive platform.

## 10. REFERENCES

### 10.1 Muhammad Ashraf Fauzi:

Bitcoin and Cryptocurrency:

Challenges, Opportunities => This paper states that the future of trading lies well with new emerging technologies that can benefit mankind. That, users and industry players can evaluate whether cryptocurrency can benefit or harm them, in accordance with their objectives and perspectives in owning it.

### 10.2. Prof. Manjari Parashar:

Cryptocurrency: an overview on its impact on Indian economy: This paper reviews the impact of cryptocurrency on Indian economy & to study the status of cryptocurrency in India and the future it holds.