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THE NATIONAL COLLEGE
Autonomous
Jayanagar, Bangalore-560070

PROJECT REPORT
ON
ETHEREUM BLOCKCHAIN BASED FURNITURE'S
PURCHASE SHOP APPLICATION

BY

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Under the guidance of

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Furniture's Purchase Shop Project report submitted in partial
fulfillment of the requirements of
VI Semester BCA, National College, Jayanagar, Bangalore



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CERTIFICATE

This is to certify the project report titled "Furniture's Purchase Shop Application" is a work done by Shivtej K of THE NATIONAL COLLEGE, Jayanagar, Bengaluru, in partial fulfillment of the requirements of VI Semester BCA during the year 2021-2022.


HEAD OF THE DEPARTMENT


PROJECT GUIDE

Examiners:

Examination Centre

1. Dept. Of Comp. Science

2. VALUED

Examiner

(1)

(2)


Authorised Signatory

The National College,
Jayanagar

Date of Examination:

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ABSTRACT

Purpose of this project is to design, develop and demonstrate the usage of Ethereum Blockchain “Furniture’s Purchase Shop” with Metamask and Ganache Application having the following features:

- a) Display the front-end on the default Browser with available Furnitures for Purchase in the Shop
- b) Purchase a Furniture by clicking on the “Purchase” button
- c) Metamask should be able to calculate the transaction fees for storing the purchase transaction in the Ganache Blockchain
- d) Ganache should record the purchase transaction and it should be verifiable
- e) Furniture once purchased should not have the option of purchasing again
- f) Using one Ganache Ethereum Account the Account holder should be able to purchase more than one Furniture
- g) Using different Ganache Ethereum accounts, the account holder should be able to purchase Furnitures and verify the related transactions in Ganache

INTRODUCTION:

BLOCKCHAIN:-

In a few words, a blockchain is a digital ever-growing list of data records. Such a list is comprised of many blocks of data, which are organized in chronological order and are linked and secured by cryptographic proofs.

The first prototype of a blockchain is dated back to the early 1990s when computer scientist Stuart Haber and physicist W. Scott Stornetta applied cryptographic techniques in a chain of blocks as a way to secure digital documents from data tampering.

Although the blockchain technology is older than Bitcoin, it is a core underlying component of most cryptocurrency networks, acting as a decentralized, distributed and public digital ledger that is responsible for keeping a permanent record (chain of blocks)

WHAT IS ETHEREUM BLOCKCHAIN?

Ethereum is a decentralized blockchain platform that establishes a peer-to-peer network that securely executes and verifies application code, called smart contracts. Transactions are sent from and received by user-created Ethereum accounts. A sender must sign transactions and spend Ether, Ethereum's native cryptocurrency, as a cost of processing transactions on the network.

DEFINING THE PROBLEMS:-

Data storage and security

Transactions processing and intermediaries
Supply chains

Intellectual property

Government operations

Charity, Voting and Crowd funding

ADVANTAGE :-

Data Storage and Security:-

Blockchain can potentially solve the data storage issue thanks to its decentralized and distributed nature.

Transactions processing and intermediaries:-

The structure of blockchain enables a real-time audit for all the transactions, securing them from any modifications.

Supply chains:-

Blockchain technology is seen as one of the most promising technologies for supply-chain management.

Government operations :-