

# National University Fast CFD Campus

## Project Proposal



**Project Title: BlockChain**

**Course:** Data Structures

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## **Description of Project**

Blockchain is the new emerging technology. It is simply a growing list of records which are linked using cryptography. A digital ledger in which transactions made in bitcoin or another cryptocurrency are recorded chronologically and publicly.

## **List of Features**

We will implement a public database where new data are stored in a container called a block and are added to an immutable chain (hence blockchain) with data added in the past

In OurCoin, we're going to store block with timestamp and index. And to help ensure integrity throughout the blockchain, each block will have a self-identifying hash. Like Bitcoin, each block's hash will be a cryptographic hash of the block's index, timestamp, data, and the hash of the previous block's hash. For computing hash we will use SHA-256

## **Data Structure to be used**

The blockchain data structure is a back-linked list of blocks of transactions, which is ordered. Each block is identifiable by a hash, generated using the SHA-256 cryptographic hash algorithm on the header of the block. Each block references a previous block, also known as the parent block, in the "previous block hash" field, in the block header.

Deliverables:

We will present fully functional blockchain based cryptocurrency.