

# BLOCKCHAIN 101

BRIEF INTRODUCTION TO THE WORLD OF CRYPTO, NFTs AND DEFI

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# PLAN FOR TODAY

- I. ABOUT ME AND MY SOURCES OF INFORMATION
- II. CRYPTOCURRENCY BASICS
- III. QUICK HISTORY LESSON
- IV. BITCOIN AND WHY IT IS IMPORTANT
- V. ETHEREUM AND SMART CONTRACTS
- VI. NFT BASICS
- VII. NFT PLATFORMS, HOW TO GET STARTED AND BUYING AN NFT LIVE
- VIII. ARE WE IN A BUBBLE?
- IX. QUESTIONS?

# AS



## DISCLAIMER

- AS WE ARE DEALING WITH ASSETS WHICH ARE HIGHLY VOLATILE AND UNREGULATED, NOTHING WE DISCUSS IN THIS SESSION IS FINANCIAL ADVICE. PLEASE DO YOUR OWN DUE DILIGENCE.
- I WILL TRY MY BEST TO TALK ABOUT EVERY TOPIC IN AN UNBIASED APPROACH, SO THAT I CAN PRESENT YOU THE FACTS AND THEN YOU CAN MAKE UP YOUR OWN OPINION.



## ABOUT ME

- MOTION DESIGN SENIOR IN OTIS.
- WENT FOR B Sc. COMP SCI IN DELHI UNIVERSITY.
- FIRST FOUND OUT ABOUT BITCOIN IN 2013, WHEN A FRIEND OF MINE TOLD ME PEOPLE BUY DRUGS ONLINE USING THIS. ALTHOUGH I FORGOT ABOUT IT A WEEK AFTER. I WISH I BOUGHT SOME.
- I WAS INTRODUCED TO BITCOIN AGAIN IN 2016 WHEN I JOINED MY UNIVERSITY, ME AND 3 OTHER FRIENDS CREATED A CLUB, WHICH NO ONE JOINED.
- FIRST TIME I BOUGHT BITCOIN, I HAD TO PAY A FRIEND IN CASH TO TRANSFER ME SOME IN MY WALLET.

OTIS  
COLLEGE  
OF  
ART  
AND  
DESIGN



# CS50

# MIT 15.S12 FALL 2018

## BLOCKCHAIN AND MONEY

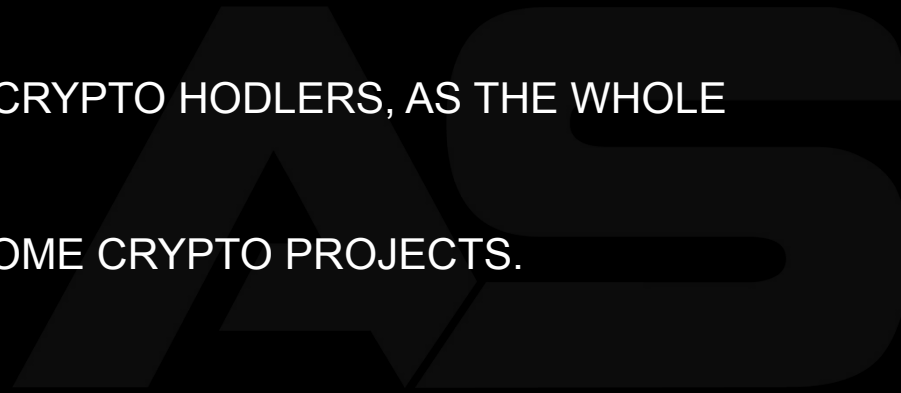
- THIS IS WHERE MOST OF MY INFORMATION ABOUT BLOCKCHAIN COMES FROM.
- THE CLASS WAS LED BY GARY GENSLER.
- THIS CLASS IS NOT AVAILABLE ANYMORE BUT YOU CAN FIND RECORDINGS OF THE LECTURES ON YOUTUBE.
- GARY GENSLER IS NOW THE CHAIRMAN OF THE SEC.



xPRO

## 2020 - 21

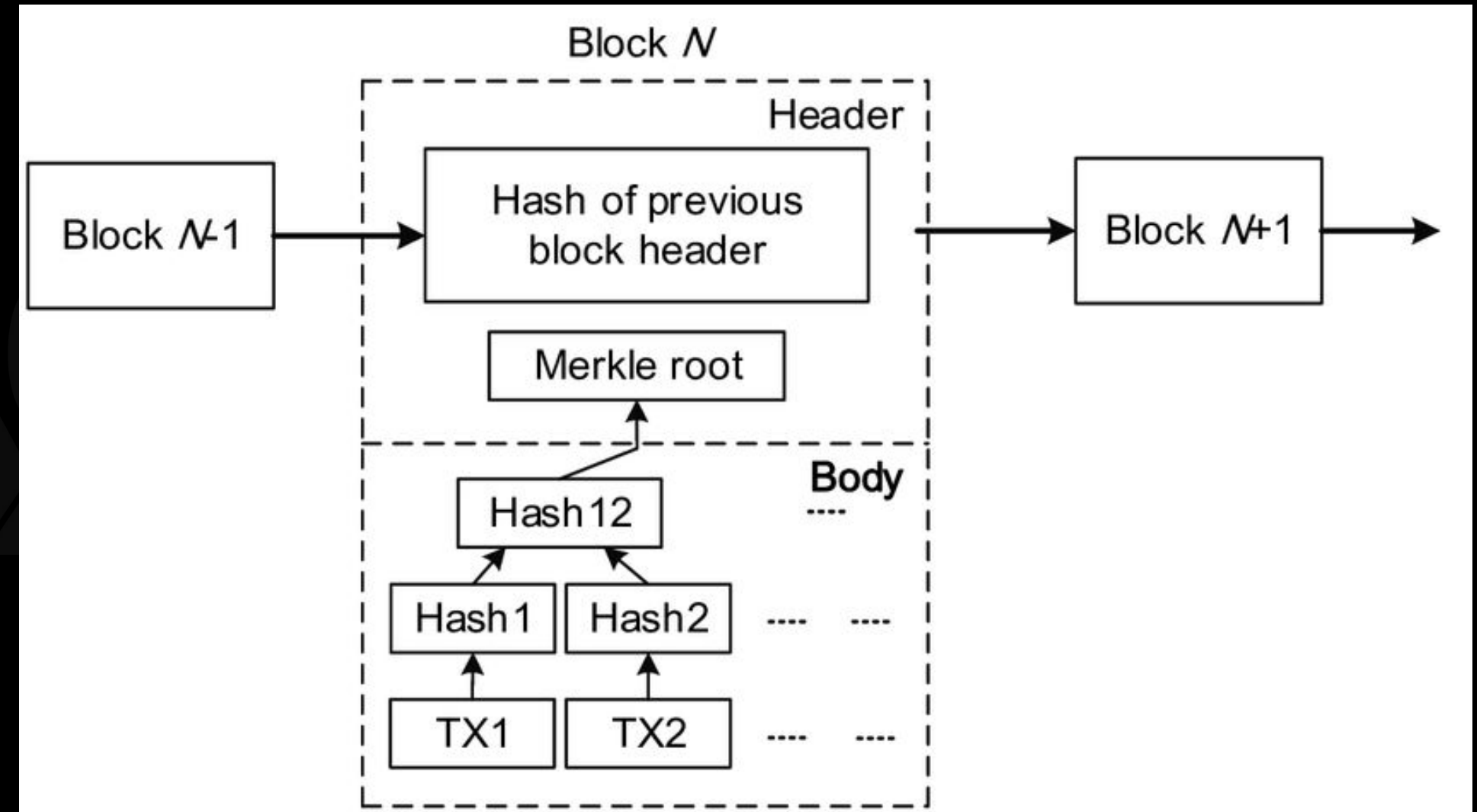
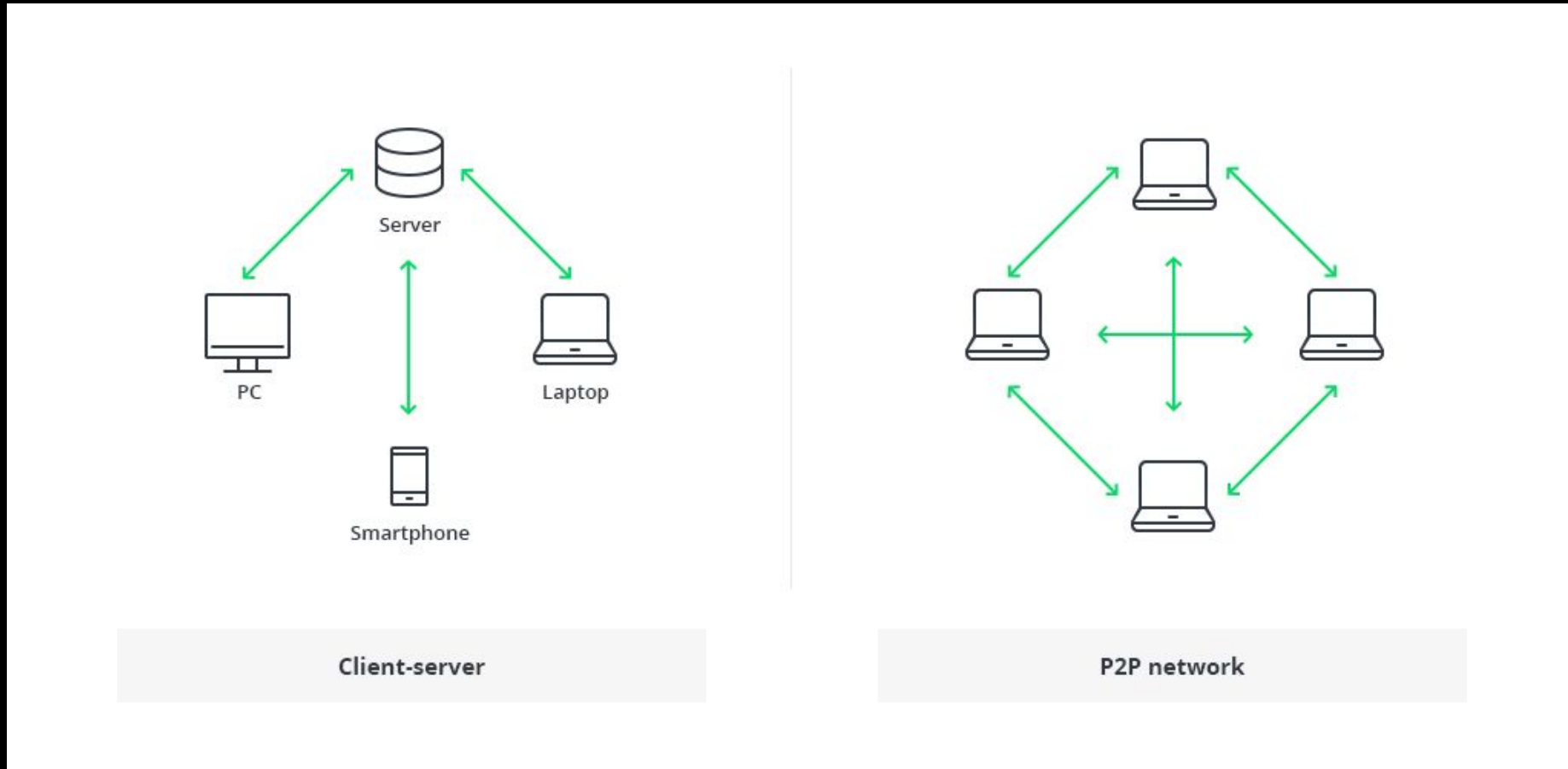
- THIS WAS THE MOST REWARDING TIME FOR CRYPTO HODLERS, AS THE WHOLE INDUSTRY EXPLODED IN VALUATION.
- I GOT INVOLVED IN THE DEVELOPMENT OF SOME CRYPTO PROJECTS.



**SundaeSwap**



# WHAT IS A "BLOCKCHAIN"?



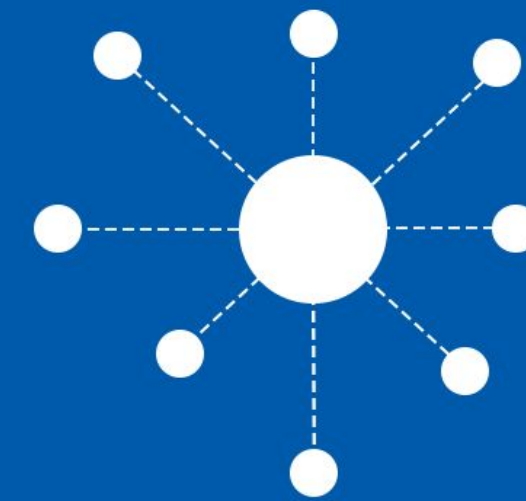
IT IS JUST A FANCY NAME FOR A TYPE OF DATA STRUCTURE.

# BASICS OF CRYPTOCURRENCIES

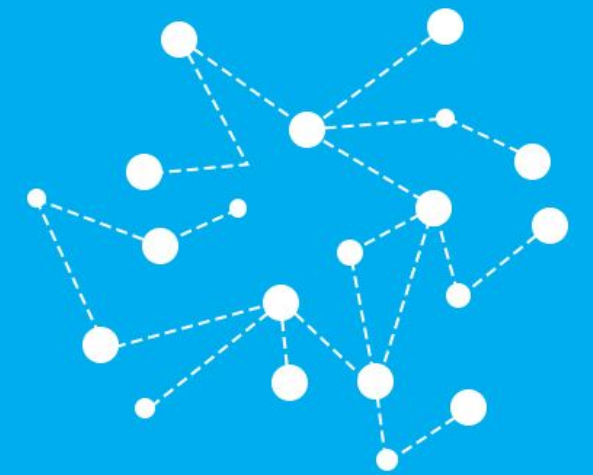
I LIKE TO USE **DECENTRALIZATION**, WHICH IS FEATURE OF CRYPTOCURRENCIES, AS A WAY TO EXPLAIN THEM SIMPLY.

- WHAT IS DECENTRALIZATION?
- WHAT IS THE BENEFIT OF USING A CRYPTOCURRENCY OVER DOLLARS OR ANY OTHER **FIAT CURRENCY**?

CENTRALIZED



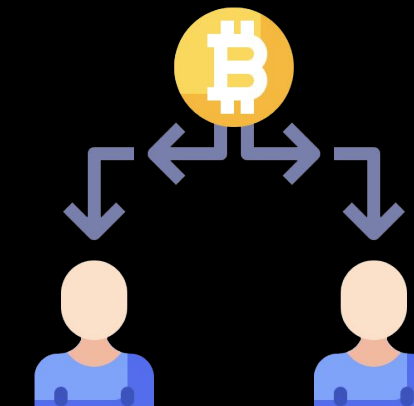
DECENTRALIZED





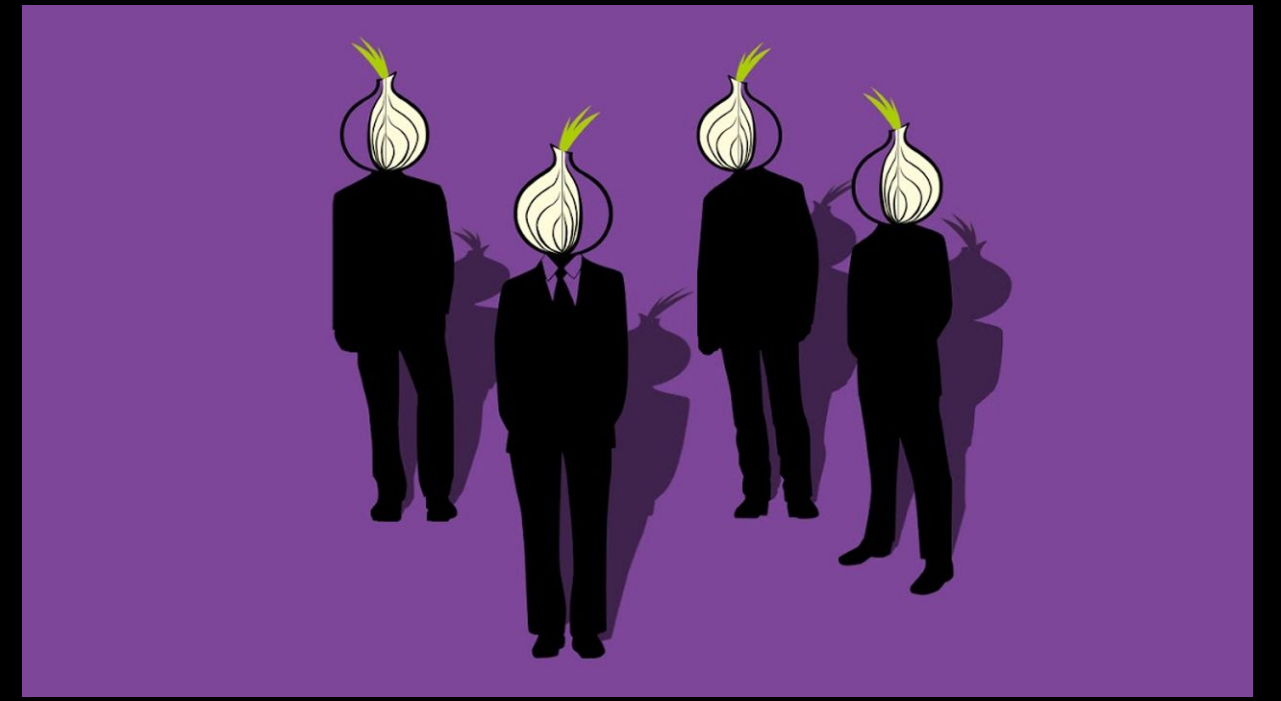
# QUICK HISTORY LESSON

- FIRST BLOCK OF BITCOIN WAS MINED IN 2009. CONTRARY TO POPULAR BELIEF IT IS NOT THE FIRST CRYPTOCURRENCY.
- SMART CONTRACTS WERE FIRST DEVELOPED BY NICK SZABO IN 1998.
- THE PROOF-OF-WORK ALGORITHM WAS DEVELOPED BY ADAM BACK 1997, THIS ALGORITHM IS ONE OF THE MOST IMPORTANT PIECES OF CODE IN BITCOIN PROTOCOL.
- THE IDENTITY OF "SATOSHI NAKAMOTO" THE PSEUDONYM OF THE CREATOR OF BITCOIN IS NOT PUBLIC INFORMATION. ALTHOUGH, THE FIRST DEVELOPER OF BITCOIN OTHER THAN SATOSHI WAS HAL FINNEY. HE ALSO RECEIVED THE FIRST EVER BITCOIN TRANSACTION.
- DAVID CHAUM WAS THE CREATOR OF THE FIRST EVER ITERATION OF DIGITAL MONEY, HE FOUNDED A COMPANY NAME DigiCash in 1989.



# OTHER FEATURES OF CRYPTOCURRENCIES

- ANONYMITY
- SECURITY
- IRREVERSIBLE TRANSACTIONS
- NO INTERMEDIARY OR SUPERVISORY BODIES



# DRAWBACKS OF CRYPTOCURRENCIES

## BITCOIN IN PARTICULAR

- **SLOW**

BITCOIN CAN ONLY DO 7 TRANSACTIONS PER SECOND WHILE VISA CAN PROCESS 3500.

- **COSTLY TRANSACTIONS**

ON AVERAGE EACH BITCOIN TRANSACTION COSTS \$10 - \$20. IMAGINE PAYING FOR YOUR \$3 COFFEE WITH BITCOIN AND SPENDING \$10 IN JUST TRANSACTION FEES.

- **WALLETS LOST ARE NOT RECOVERABLE**

IF SOMEONE LOSES THEIR PRIVATE KEY OR SEED PHRASE, THE FUNDS IN THAT ACCOUNT ARE LOST FOREVER!

RIGHT NOW YOU MIGHT THINK IT SUCKS, IT HAS NO USE AND IT IS ALL A FAD/BUBBLE.



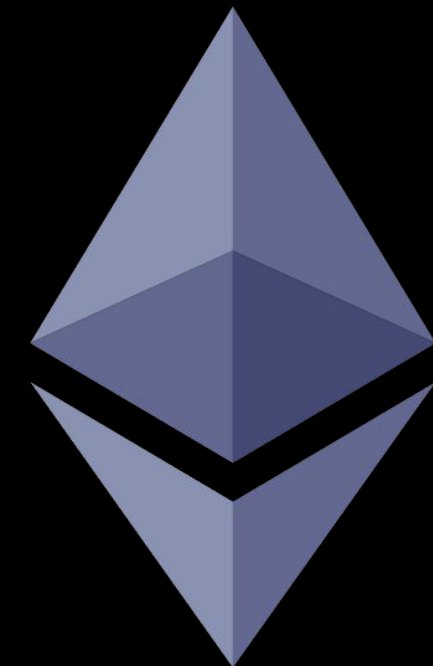
# BITCOIN VS GOLD

TRAIT	GOLD	BITCOIN
SCARCITY	SCARCE, UNKNOWN SUPPLY	SCARCE, LIMITED SUPPLY
COUNTERFEIT - RESISTANCE	MEDIUM	HIGH
PORTABILITY	LOW	HIGH
DECENTRALIZATION	MEDIUM	HIGH
DIVISIBILITY	LOW	HIGH
FUNGIBILITY	MEDIUM	HIGH

IMAGINE IF YOU HAVE \$50 MILLION WORTH OF GOLD AND YOU WANT TO TRANSPORT IT TO ANOTHER PLACE.

# DIFFERENCE BETWEEN BITCOIN AND ETHEREUM

- ETHEREUM IS FASTER AND MORE SCALABLE THAN BITCOIN.
- ETHEREUM HAS FULL SUPPORT FOR SMART CONTRACTS, WHILE BITCOIN SMART CONTRACTS ARE VERY LIMITED.
- BITCOIN IS A STORE OF VALUE ASSET SO IT COMPETES WITH GOLD WHILE ETHEREUM AIMS TO REPLACE FIAT CURRENCIES I.E USD ETC.
- THE BITCOIN PROTOCOL HAS A PREDEFINED CAP ON THE NUMBER OF BITCOINS THAT CAN BE MINTED, WHILE ETHEREUM HAS NO SUCH LIMITS.



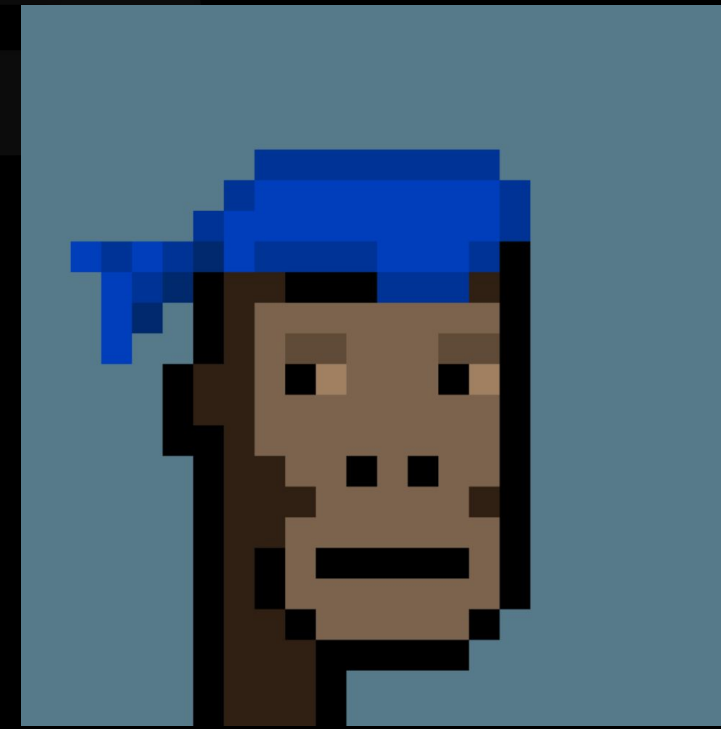
# WHAT IS A "SMART CONTRACT"?

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# NFT BASICS

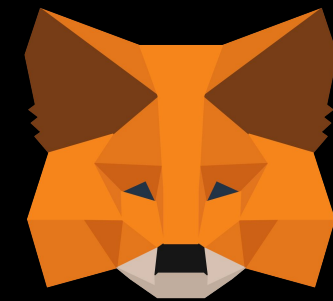
- NON-FUNGIBLE TOKENS ARE POWERED BY SMART CONTRACTS, WHICH ALLOWS THEM TO BE TRANSFERRED AND VERIFIED EASILY.
- THAT IS THE REASON WHY NFTs ARE MAINLY AVAILABLE ON BLOCKCHAINS LIKE ETHEREUM AND NOT ON BITCOIN.
- WHAT DOES "NON-FUNGIBLE" MEAN EXACTLY?
- WHY DO PEOPLE BUY NFTs?



# GETTING STARTED

## WHAT DO WE NEED?

- A BLOCKCHAIN WALLET (METAMASK)
- CRYPTO EXCHANGE ACCOUNT (COINBASE OR BINANCE.US)
- AN NFT PLATFORM (OPENSEA OR FOUNDATION)



coinbase



OpenSea





## BUYING AN NFT

- WE WILL BE BUYING AN NFT ON THE BINANCE SMART CHAIN (A SIDECHAIN TO ETHEREUM).
- <https://pancakeswap.finance/nfts/collections/0xdf7952b35f24acf7fc0487d01c8d5690a60dba07/8>



ARE WE IN A BUBBLE?

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