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BLOCKCHAIN CLUB SVCT

GITATHON
SVCT-BLOCKCHAIN CLUB

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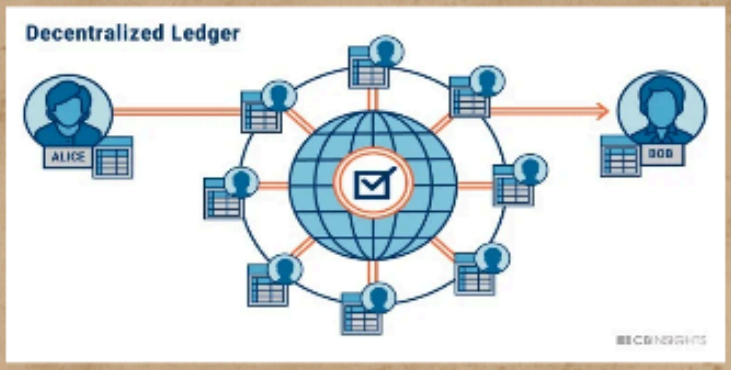
Introduction about Ethereum

Ethereum is a decentralized blockchain with smart contract functionality Ethereum was conceived in 2013 by programmer Vitalik Buterin.

Ethereum

Among cryptocurrencies,
ether is second only to bitcoin in market capitalization, It is open-source softwareIn 2014, development work began and was crowdfunded, and the network went live on 30 July 2015

Ethereum
allows anyone to deploy permanent and immutable decentralized applications onto it, with which users can interact Ethereum also allows users to create and exchange non-fungible tokens (NFTs)



WHAT IS ETHER?

1.Ether (ETH) is the native cryptocurrency of Ethereum. The purpose of ETH is to allow for a market for computation.

2.There are two types of accounts in Ethereum: 1.Externally Owned Accounts (EOA) 2.Contract Accounts.

ETHEREUM PLATFORM

1. eToro - Best Ethereum Exchange With Transparent Fees, Copy Trading And Smart Portfolios.

2.eToro is a leading Ethereum exchange that offers a secure and transparent trading platform

Ethereum wallet

1.It enables you to store (ETH), Ethereum's native cryptocurrency, and other Ethereum-based assets like ERC-20 tokens and NFTs.
2.Two types of wallet
*Hardware wallet
*software wallet

Hardware wallet

1.Transaction,datas, content are more secure when compare to software wallet
2.We can use ERC-20 token for transaction
1 ether = 1*10^18 wei(wei also coin or token ,it can also used for transaction)

Software wallet

1.It completely contain whole blockchain history transaction

2.It has high memory space

3.It is very difficult to operate

It contains three types

1.Go

2.mist

3.parity

1.Modifiers

2.Events

3.Inheritance

1.Modifiers

A modifier is special type of function that you use to modify the behaviour of the function.modifiers allow you to add extra condition or function without having to rewrite a function

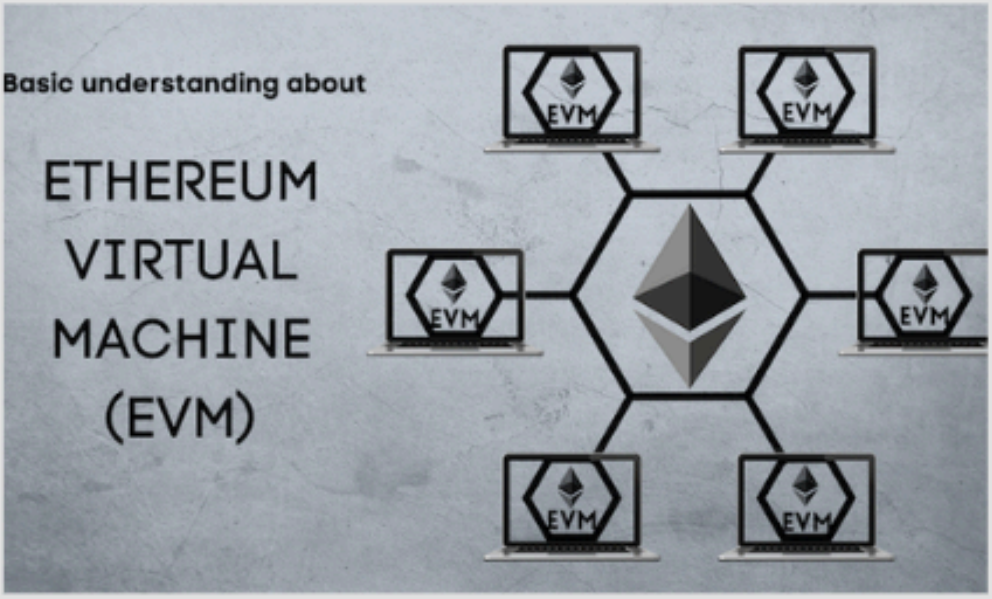
2.Events

Events in solidity are used to provide a way for smart contracts to communicate with external applications or users

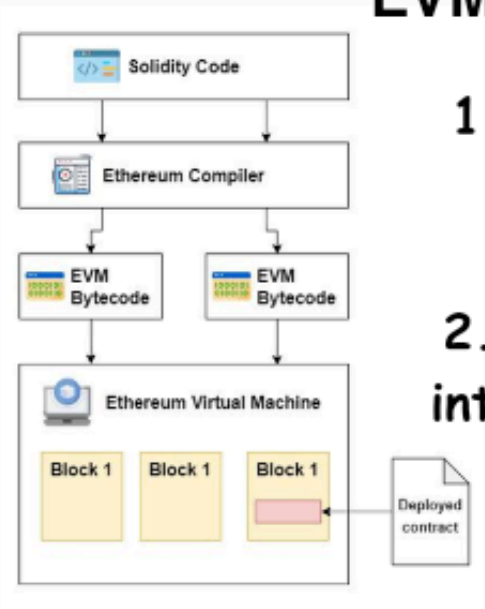
3.Inheritance

Inheritance in solidity allows smart contracts to inherit properties and methods from other contracts

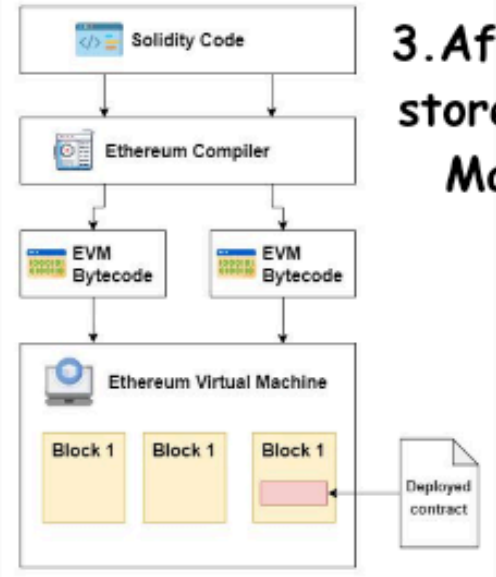
WHAT IS EVM?



EVM Architecture in blockchain



1. After entering the Solidity code, it is then processed by the Ethereum compiler
2. Then it converts the source code into EVM (Ethereum Virtual Machine) bytecode.



3. After compilation, the EVM bytecode is stored in Block 1 in the Ethereum Virtual Machine, then we can access through deployed contract.

This" block1" contains

1. Transaction datas
2. Hash data
3. Time stamp

What is gas-smart Contracts-in block chain?

1.Gas in Ethereum refers to the fee required to execute transactions or smart contracts on the Ethereum network.

2.The several ways of gas are;

Several ways of gases:

1.Gaslimit

Smart contract developers can specify a gas limit for their
contracts. This sets the maximum amount of gas that can be consumed
during the execution of the contract.

2.Gas price

Users can set the gas price they are willing to pay for executing a transaction or smart contract. Miners prioritize transactions based on the gas price, so higher gas prices lead to faster execution.

1 Gas price =21,000(It can't be changed)

3.Gas cost

The gas cost for executing a smart contract depends on the computational complexity of the contract code. More complex operations require more gas.

Gas cost= gas limit×gas price

4.Gas refund

Ethereum refunds unused gas at the end of contract execution If a contract doesn't consume all the gas allocated to it,the remaining gas is refunded to the sender