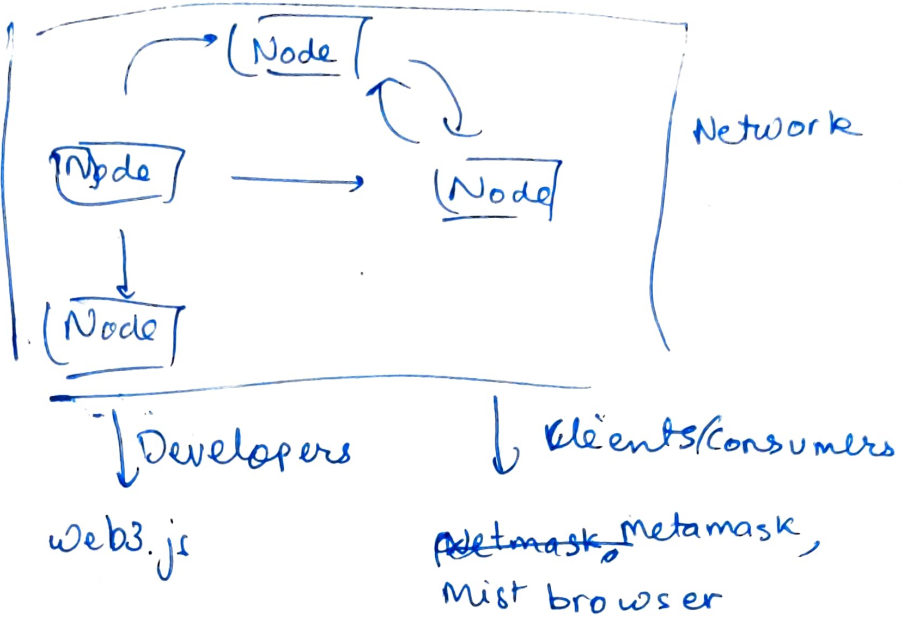


the realm & solidity ?

Ethereum networks are used to transfer money & store data.

each node is a machine running ethereum client



Metamask



Transaction

Nonce - to - value - gas Price - gas limit - v - r - s

↓
generated from senders private key

* Smart Contract

balance : amount the acc holds
Storage : data storage for this acc
Code : raw machine code for this contract.

Contract functions

1) "calling" a fn : cannot modify contracts data
can return data
runs instantly
free to do.

2) sending a transaction to a fn : can modify a contracts data,
takes time to execute
returns transaction in hash,
costs money

Gas: cost of running the code in the contract
ex: operation gas used
add 3
sub 3
mul 5
div 5
equals 3

gasPrice: amount of wei the sender is willing to pay per unit gas to get this transaction processed.

gasLimit: Amt of gas this transaction can consume.

Wei = 10^{-18} ether

Things to read : BIP39 Mnemonics

* Lottery Contract to create

Variables: manager - address of person who created the contract

players: array of addresses of people who created the contract.

Functions: enter - enters a Player into the lottery.

pickWinner - randomly picks up a winner & sends them the prize pool

msg global variable available at all times

msg.data

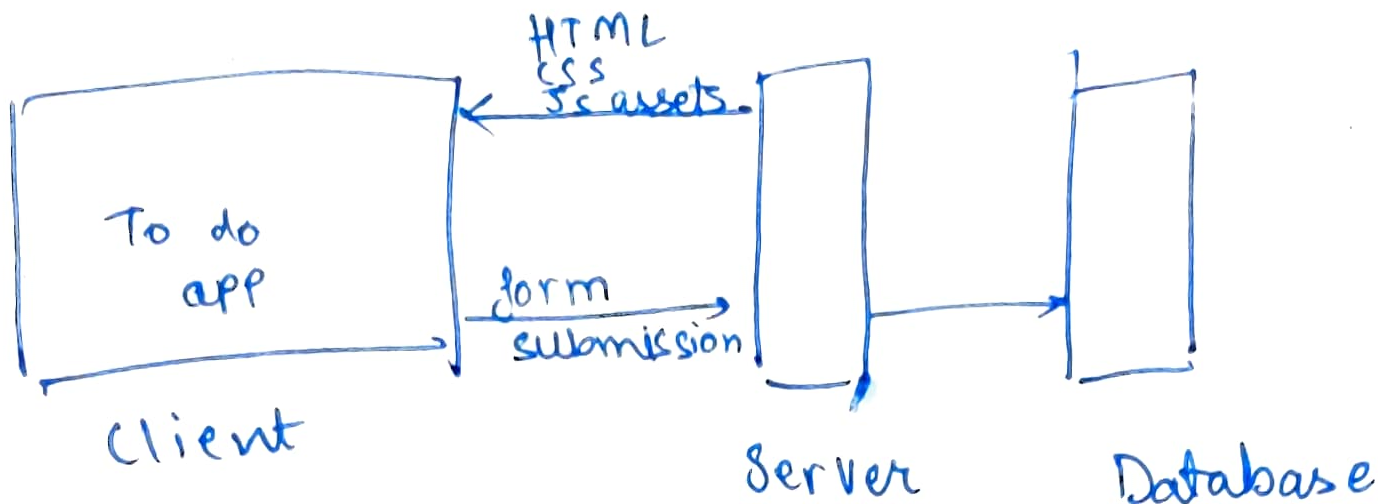
msg.gas

msg.sender

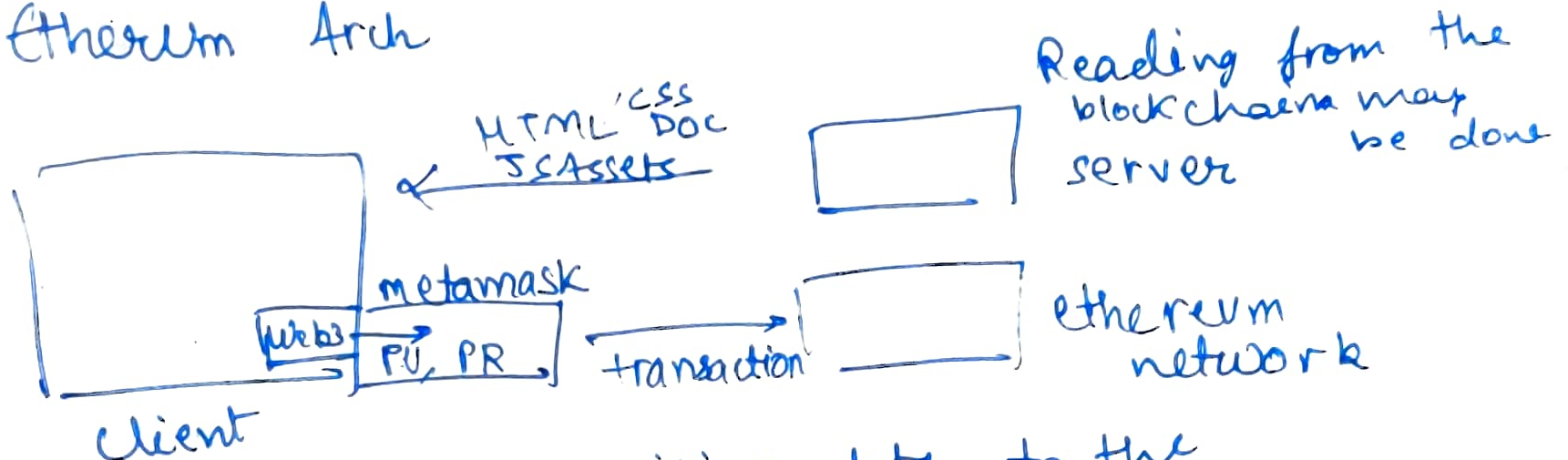
msg.value

no declaration required

Traditional web App



Ethereum Arch



writing data to the
blockchain must be done
from the client