Solidity

* Event is use for login
* Msg.sender is referring to?
* Chap 13. Is the programme runable? Are you creating a new coin?
* Chap 14. For the throw, the “money gone” referring to gas or the money we want to sent?

Truffle framework

* Command line dev env.
* Deploy, call function un contract
* Can connect to local blockchain(Ganache)

**Infura – free ethereum server**

Json file is for web3.js to interact with smart contract

Migration

* Cannot change the previous migration
* Truffle migrate --reset do no delete our previous contract. It migrate the contract into a new address.

Ethereum Network

* Ganache is simplest test enviromentt for Ethereum
  + A part of truffle project
  + Fake Ethereum node – not connected to any Ethereum Node
* Geth – go ethreum project
  + Official client form Ethereum project
  + C++ client
  + Can be used to connect to:
    - ethreum main net ,
    - Ropsten/Rinkeby test network ,
    - custom test network,
    - Create private Ethereum network
    - Mine ethereum
    - Act as a wallet
* IDE
  + Offical solidity IDE is Remix ( remix.ethereum.org)
    - Can choose the compiler version
    - Can detect error
    - Online IDE
    - Integrates with MetaMask
    - Can actually deploy on main net
    - Good for small test contracts
    - Debugging is a bit confusing.
  + Cakeshop
    - Written by JPMorgenChase & Co
    - Java
    - Developed for Quorem, not Ethereum
  + Open zeppelin
    - Useful library of tested Solidity Code
    - Significantly reduce dev time
  + Infura
    - Project lightweight can run it free
    - Cloud ethereum node service

Deployer

Contract creation = migirate

Contract Call = deploy

Command

Truffle help deploy

Truffle deploy help

MyContract.address

MyContract.deployed() = automatically get the address

What real problem we want to solve?

Why are you choosing the problem and how you are solving it?

Can choose various industries and concept.

ss = SimpleStorage.at("0x5ab745c06fbff48b88d637a2d7c978fe987ab328")

ss.get()

num = ss.get()

typeof num

ss.get().then(function(i){console.log(i)})

ss.get().then(bigNum => { return bigNum.toNumber();})

Call struct

ss.candidates.call(1)

Start the project pet shop.

Command: truffle unbox pet-shop