CS 496 Notes

February 1st, 2019

* PROJECT: Transaction in DB
* MAKE SURE TO REFINE SKILLS ON LIST AND MAP
* Static
  + Only one copy of that object/variable/function
  + Shared between all instances of the overall object
* Singleton
  + A pattern that restricts the instantiation of a class to one

class UserCache

{

private map <String, User> users;

static UserCache instance;

//private constuctors

static UserCache getInstance()

{

if(instance == null)

{

//Do something

}

return instance;

}

}

February 4th, 2019

* RSA
* Securing a Website (E.g., HTTPS)
* Key-Exchange
  + Server 🡨🡪 Client
  + Also known as a session
  + Should securely transport information from server to client and vice versa
  + SSL/TLS
* Symmetric
  + AES (Most Widely Used)
  + DES
* Ciphers
  + Block Cipher
    - Example
      * Message is 64bits
      * Transform string of bits into block
      * Work on each bit individualy using:
        + Substitution
        + Tranposition
* Keys
  + Public
    - Everyone has access to this key
    - Allows clients (public) to encrypt a secret key and send it to server
  + Private
    - Only server side has access to private key
    - Allows the server to decrypt the encypted messages from the clients

Frebruary 8th, 2019

* ORM
  + Object Relational Mapping
  + Allows data to be stored as virtual object
  + Drawback is that it may be slower
  + Know CRUD
  + Know an Example of ORM