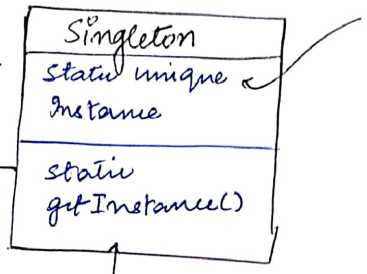
Chapter 5: Singleton Pattern

* To create one of a kind objects with one instance.
* It is a convention of sorts. It gives a single point of access. Only create objects when needed.
* Singleton – constructor is private
  – you don't instantiate, you ask for an instance.

* Class diagram :-



The uniqueInstance class variable holds our one & only instance of Singleton

This method is static which means it is a class method so we can access it from anywhere.

Benefit of lazy instantiation.

A class implementing singleton pattern is more than singleton. It is a general purpose class with own set of data & methods.

* By adding synchronized keyword to getInstance() we force every thread to wait its turn. No two threads may enter at same time.

* How to improve multithreading.

* 'volatile' keyword ensures that multiple threads handle the unique instance variable correctly when it is being initialized to Singleton instance.

* No dumb Qs :-

→ Stay in object world.

→ class loaders. (defining namespace)

* You can't subclass Singleton with private constructor. Registry of sorts.

* Global var worse. Basically static references to objects. Only one instance. Lazy vs eager instantiation.