Locks and Condition

Synchronized Block and Monitor Lock

* Synchronized: Used to put a monitor lock on an object so that only one thread can access the critical section at a time.
* Monitor lock is object-dependent. If two different threads access a synchronized method using different objects, both can acquire the lock.
* Limitation: If different objects are used, multiple threads can enter the critical section.

Custom Locks

* Custom locks are not object-dependent like synchronized blocks. They provide more control over thread access in different scenarios. Custom locks are of fur types

1. Reentrant Lock
2. Read Write Lock
3. Semaphore Lock
4. Stamped Lock