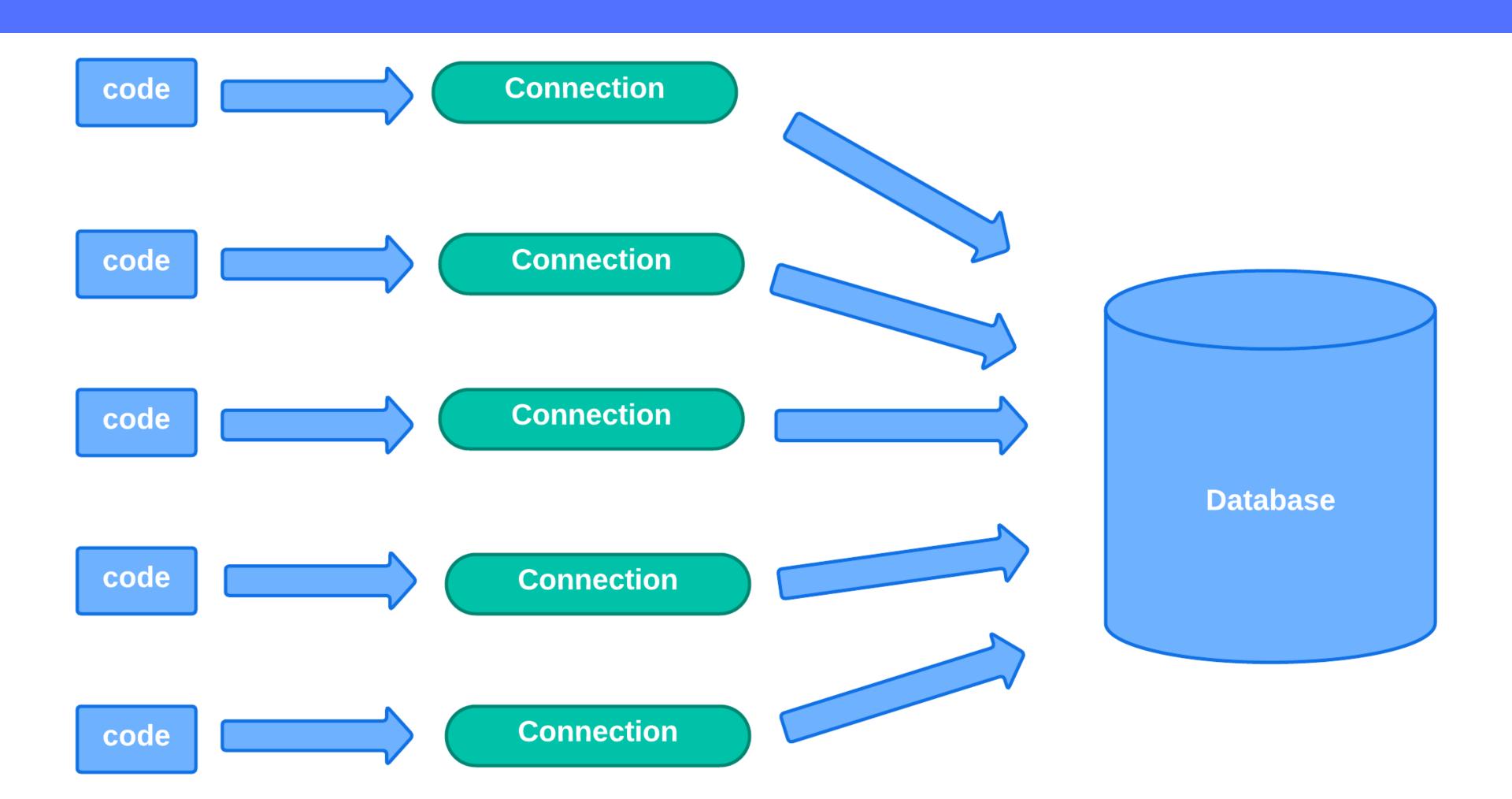
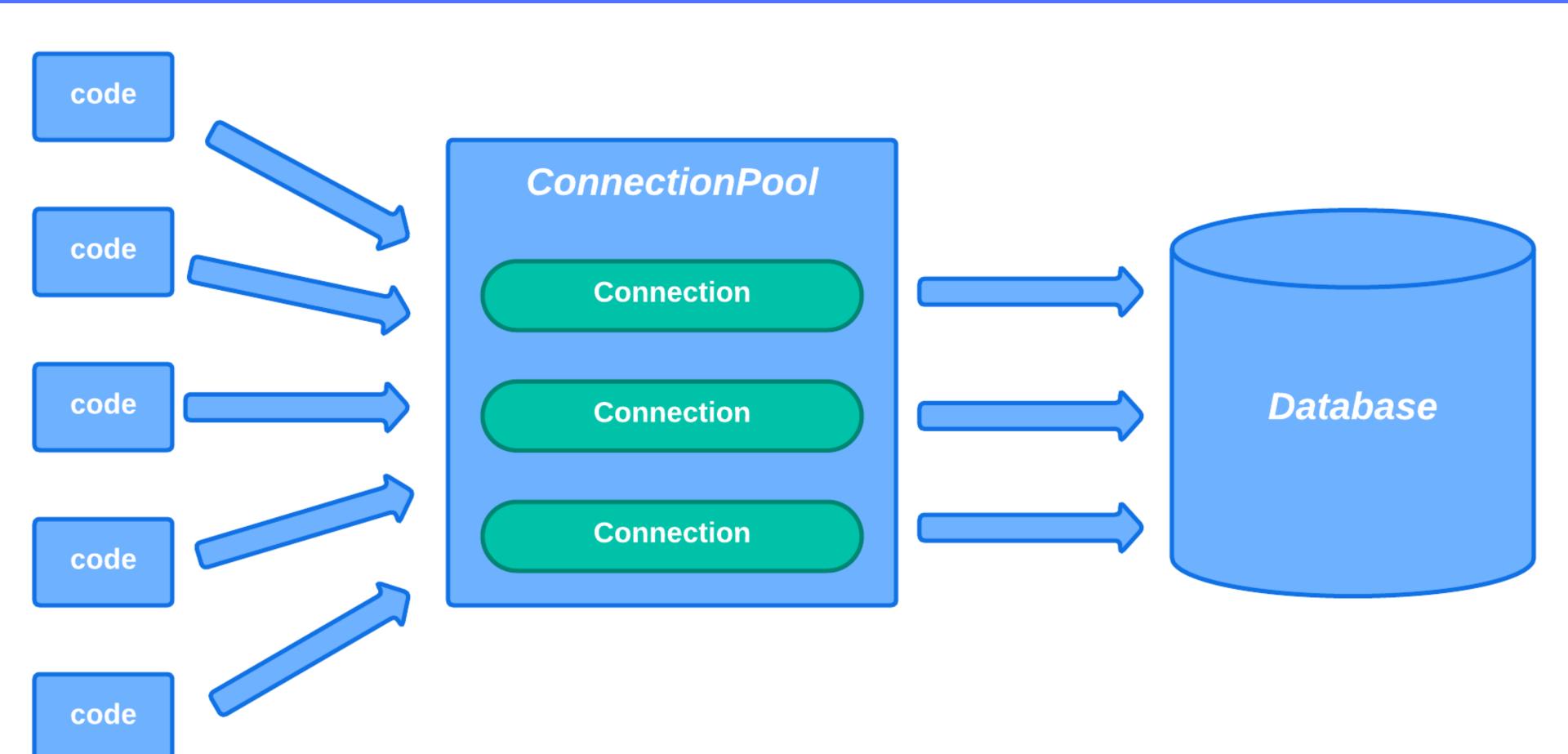
## JAVA



МНОГОПОТОЧНОСТЬ.
ПРАКТИКА 2.
ПУЛ ОБЪЕКТОВ





## PoolObject<T>

1...\*

-object : T

-issued : boolean

AbstractPool<T>

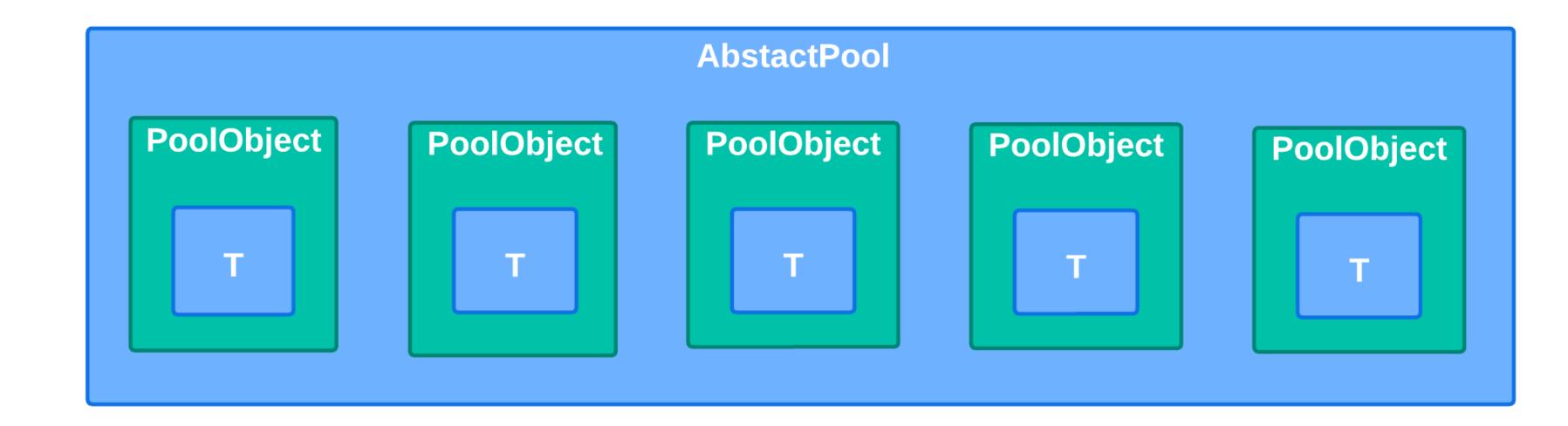
-poolObjects : List<PoolObject<T>>

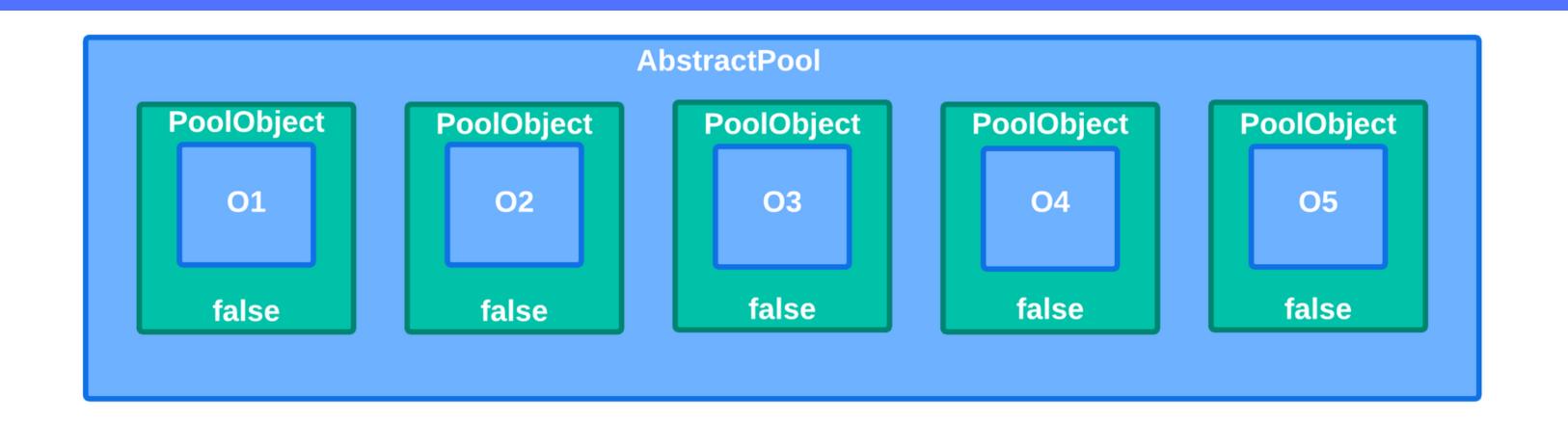
-semaphore : Semaphore

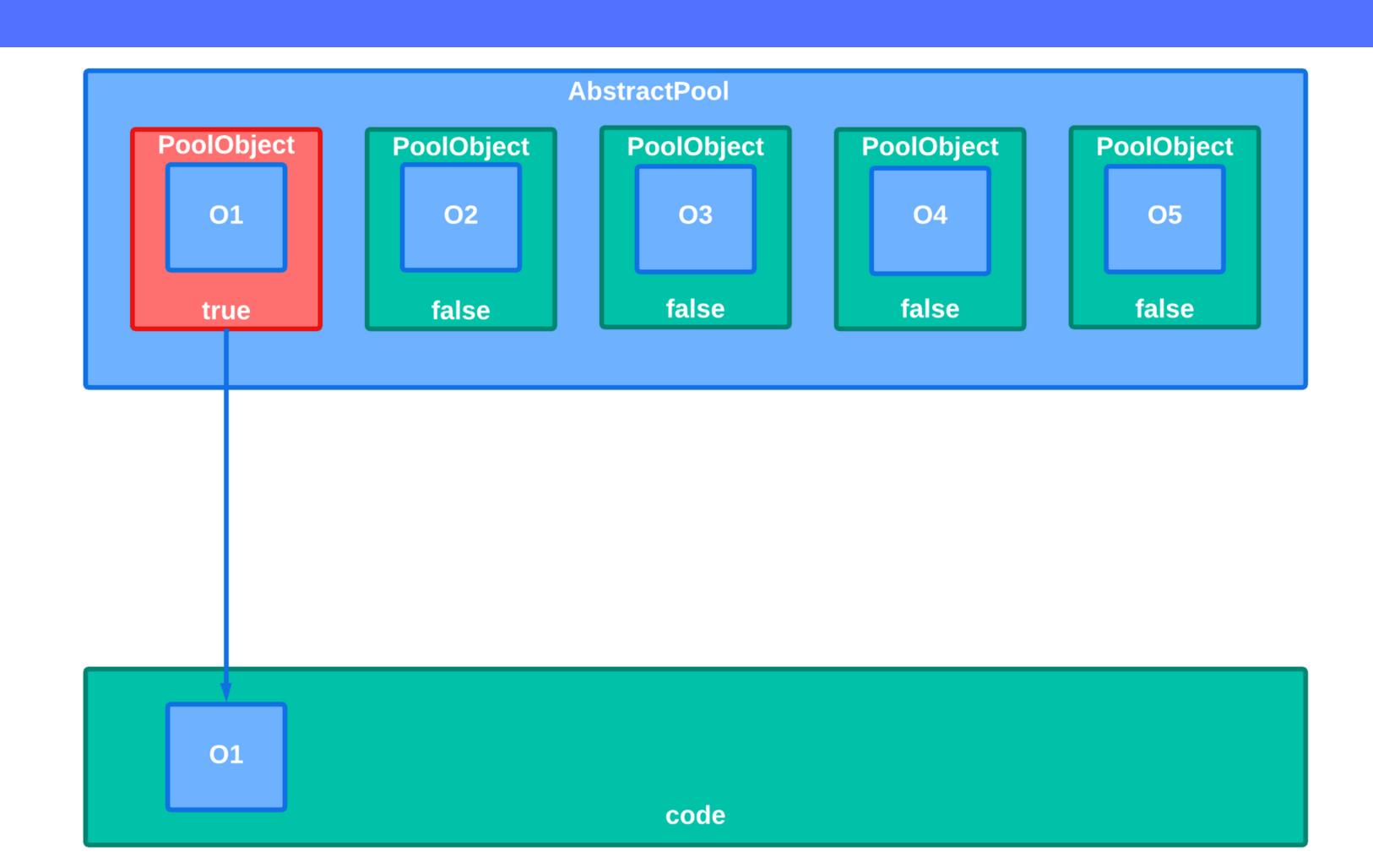
+acquire(): T

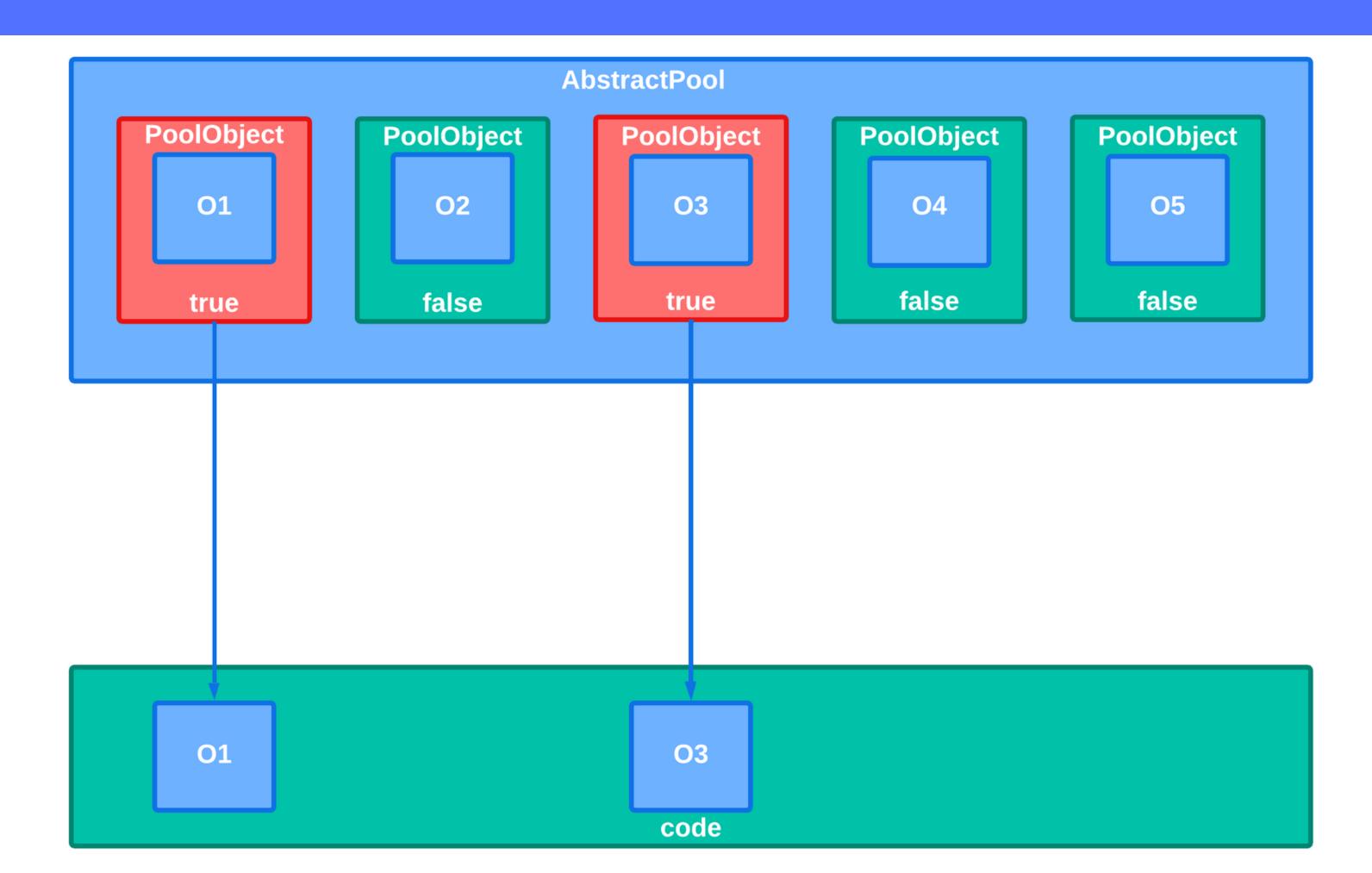
+release(T) : void

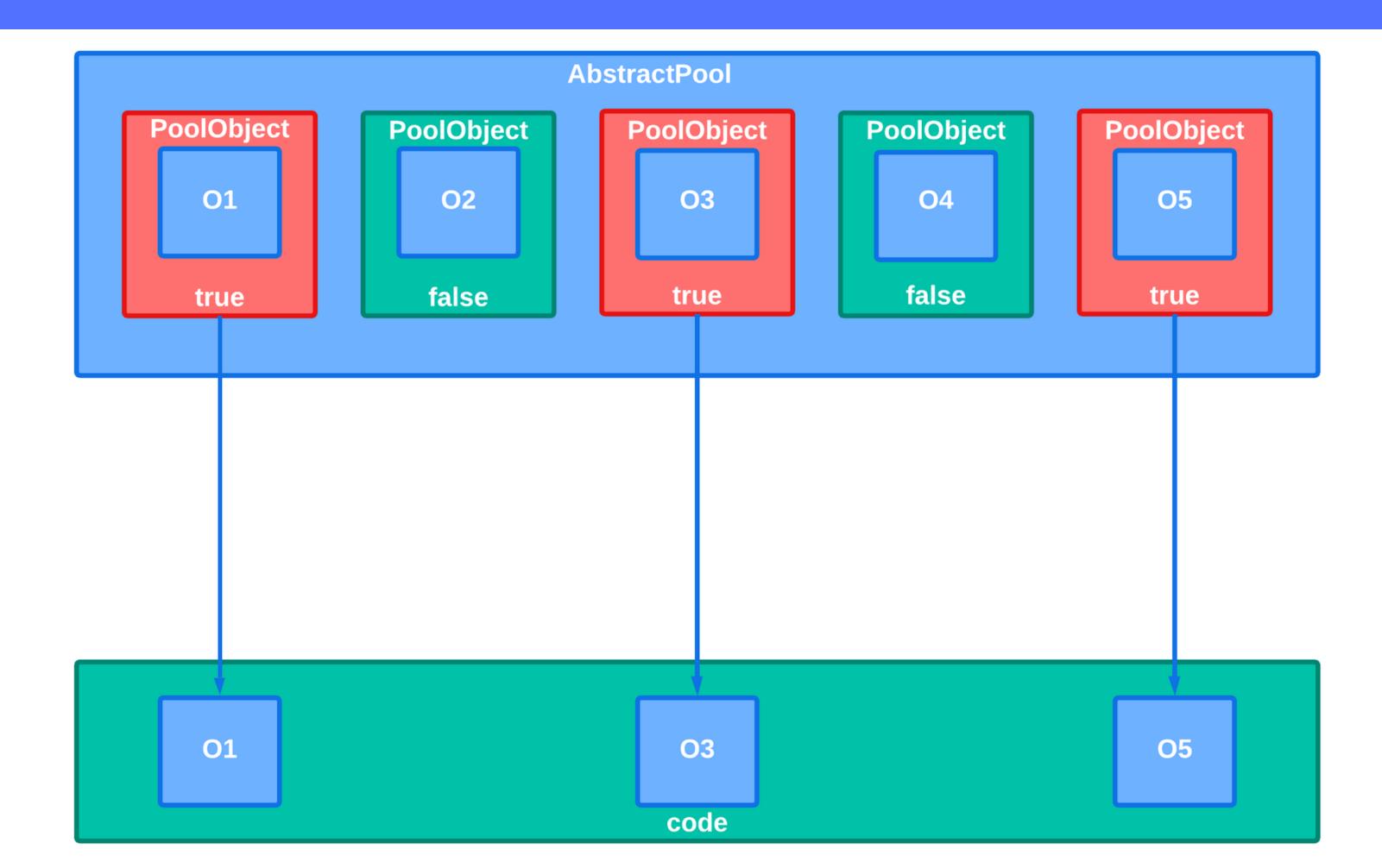
#cleanObject(T) : void

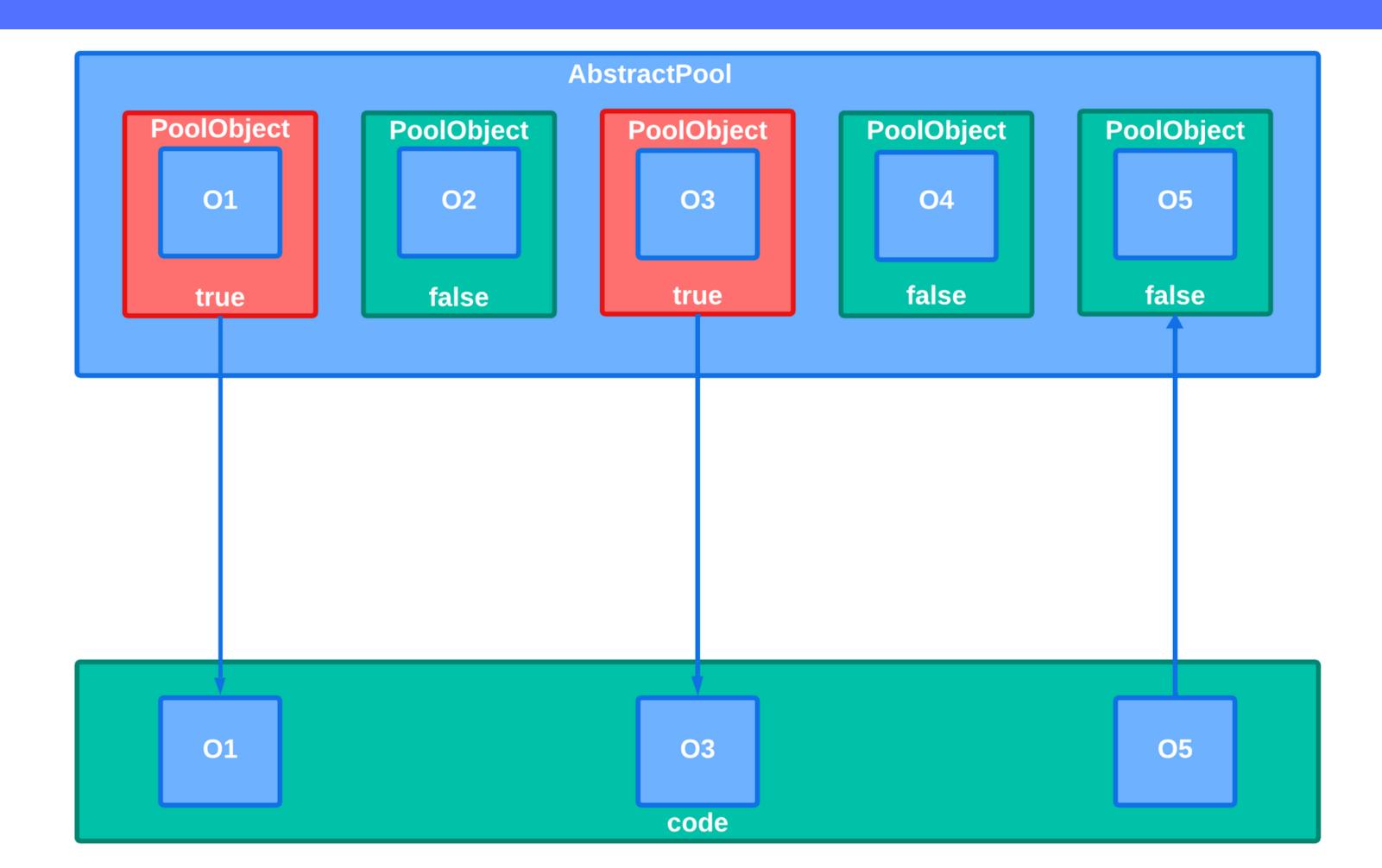


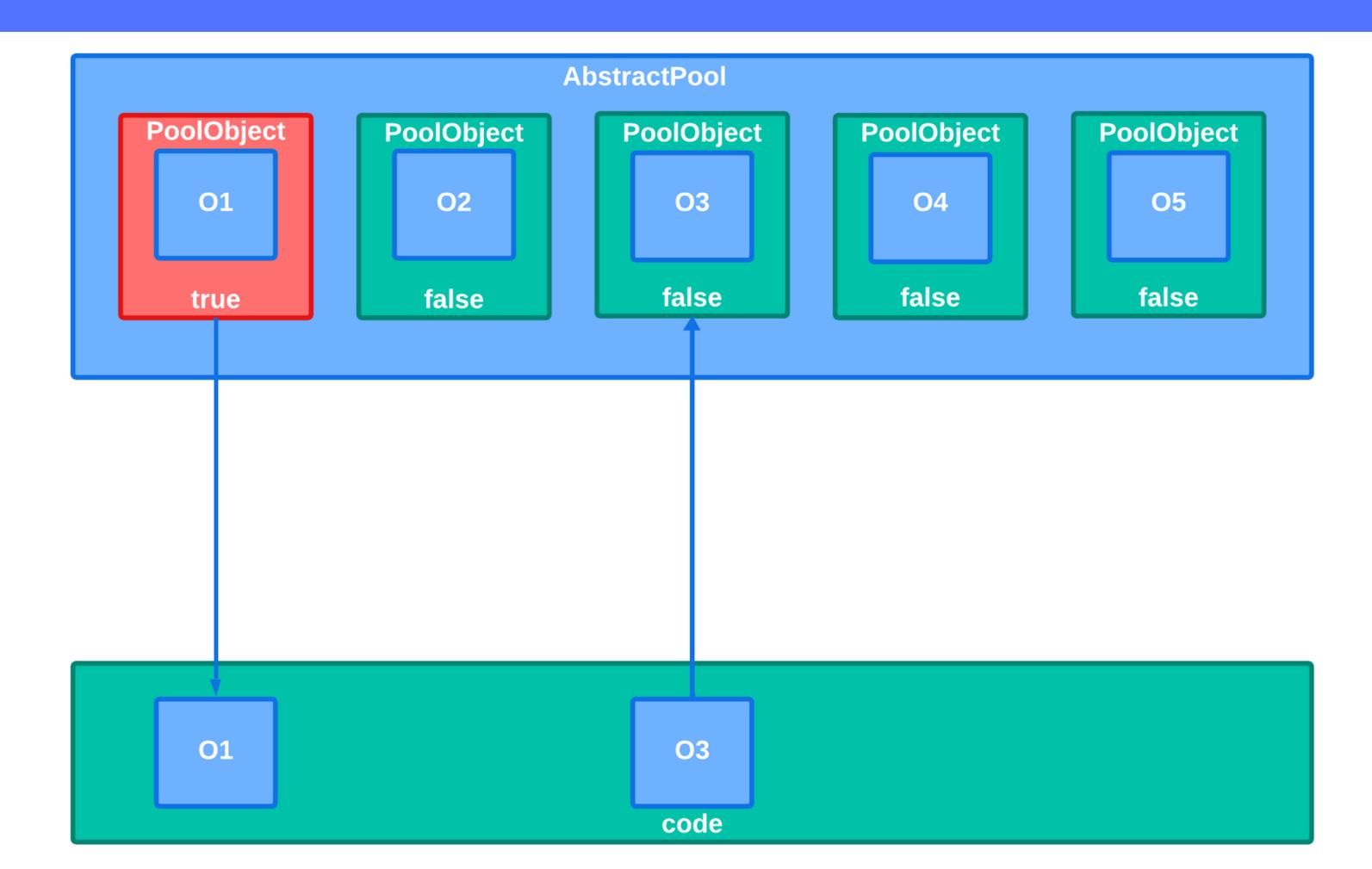


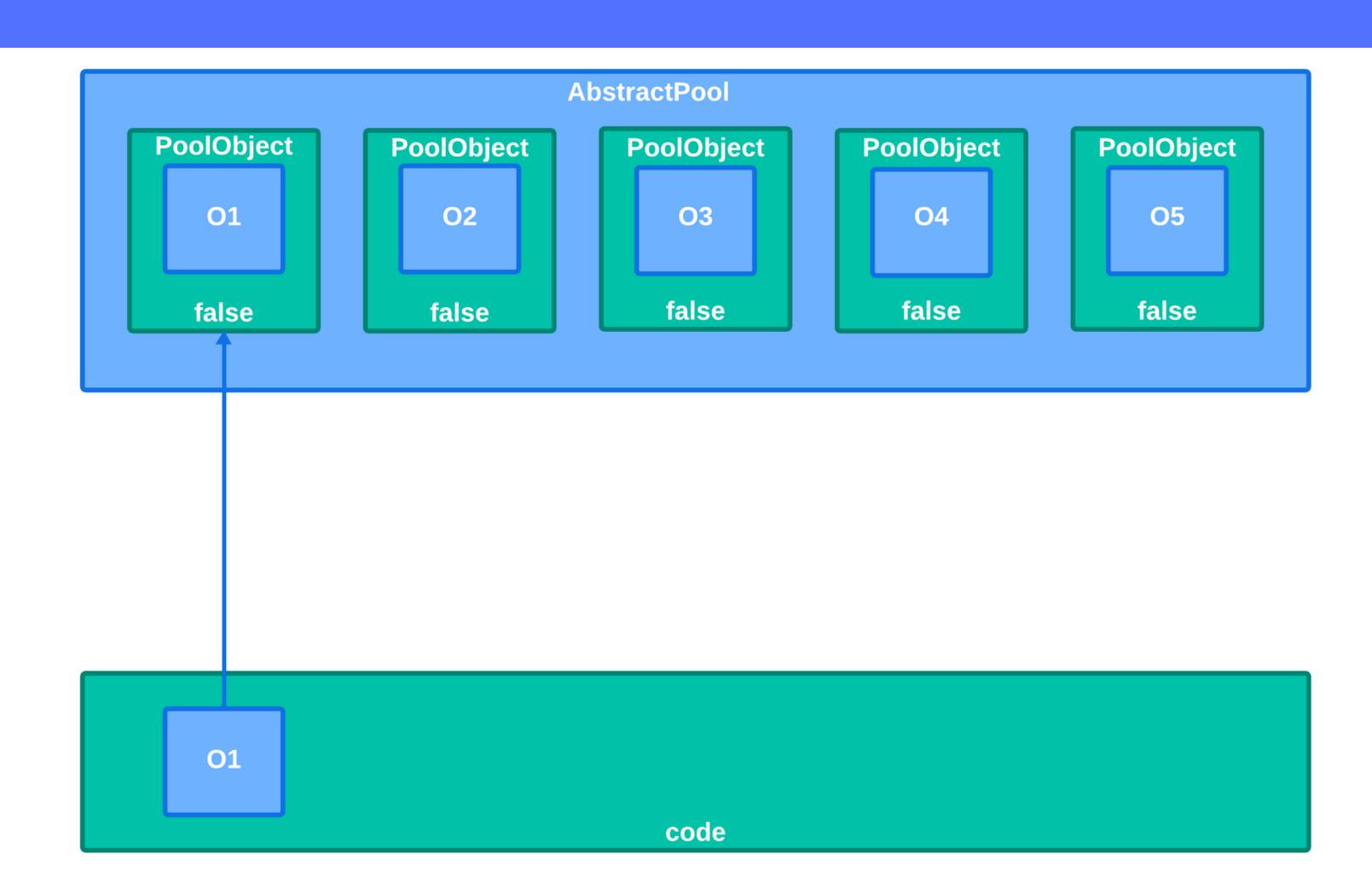


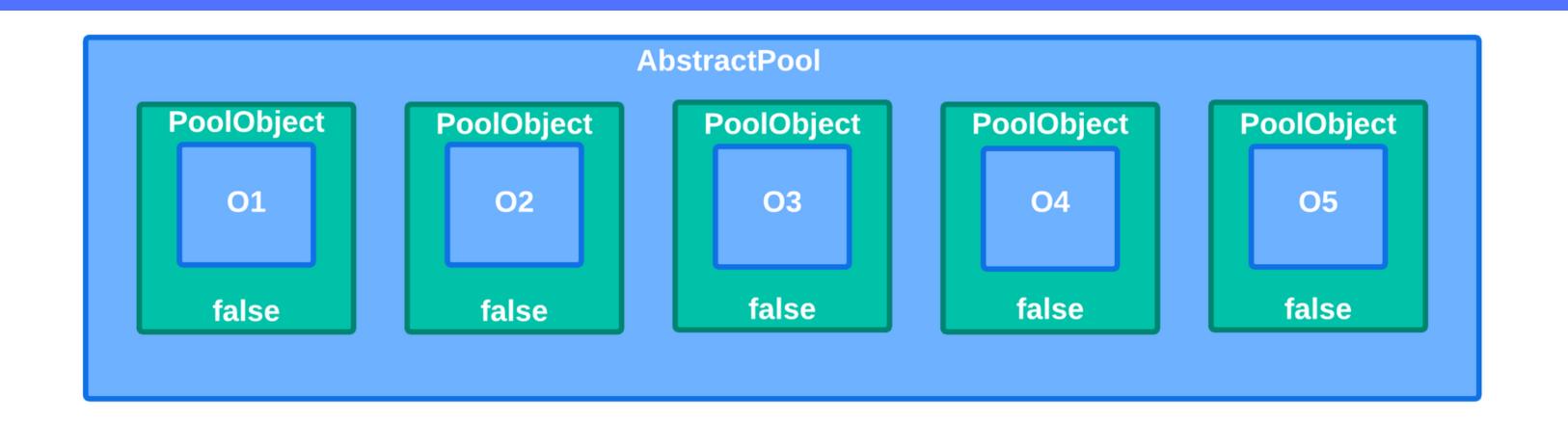


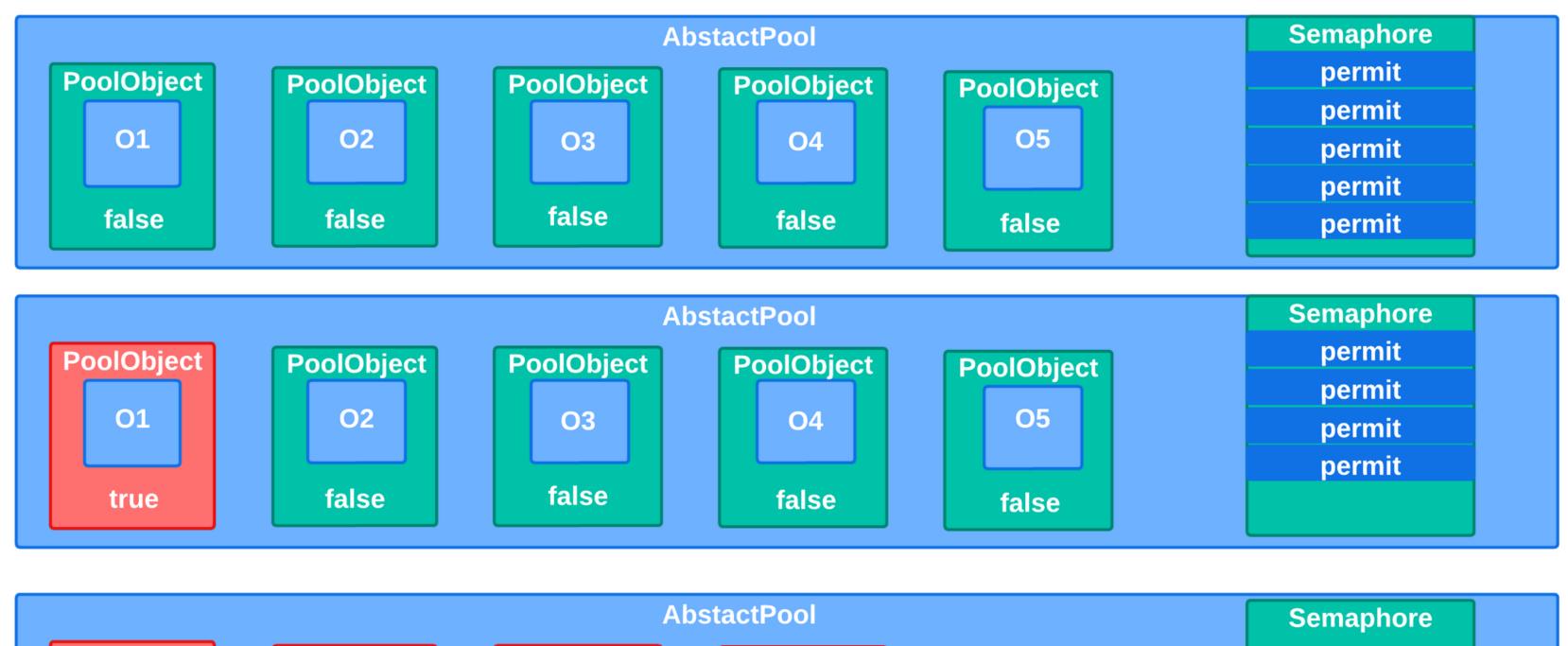


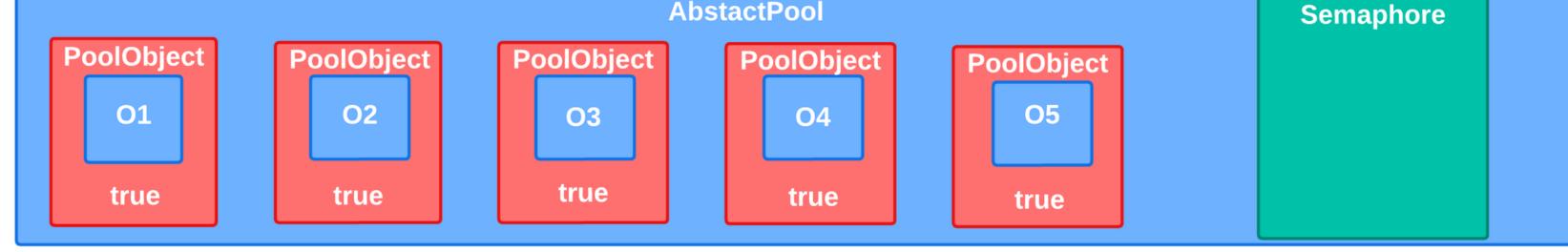


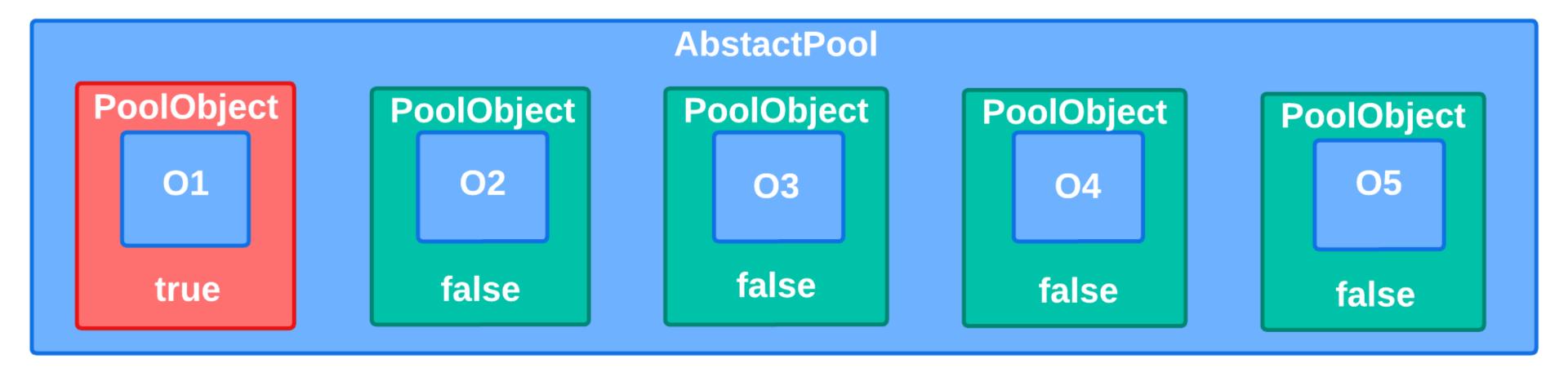




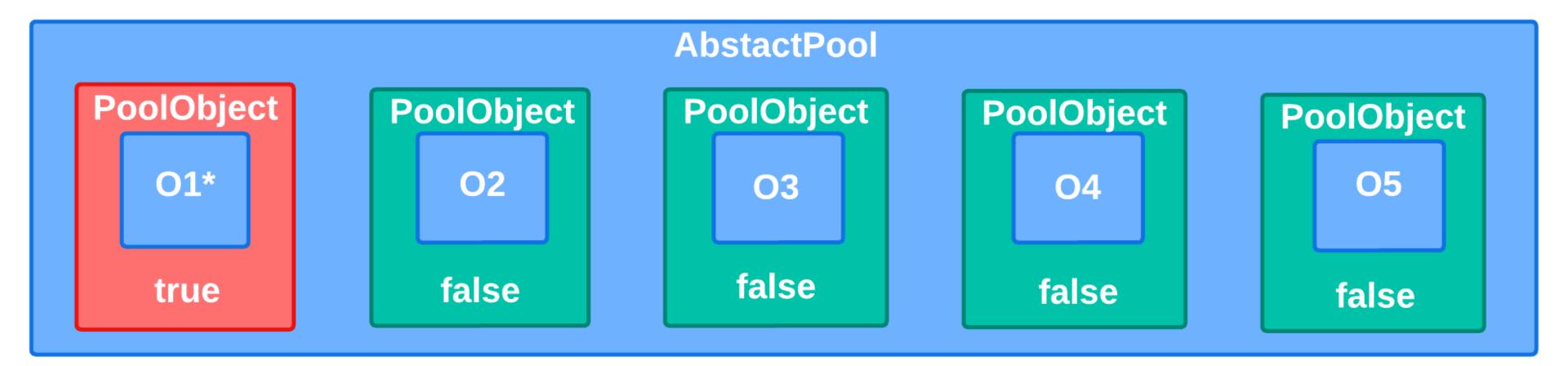




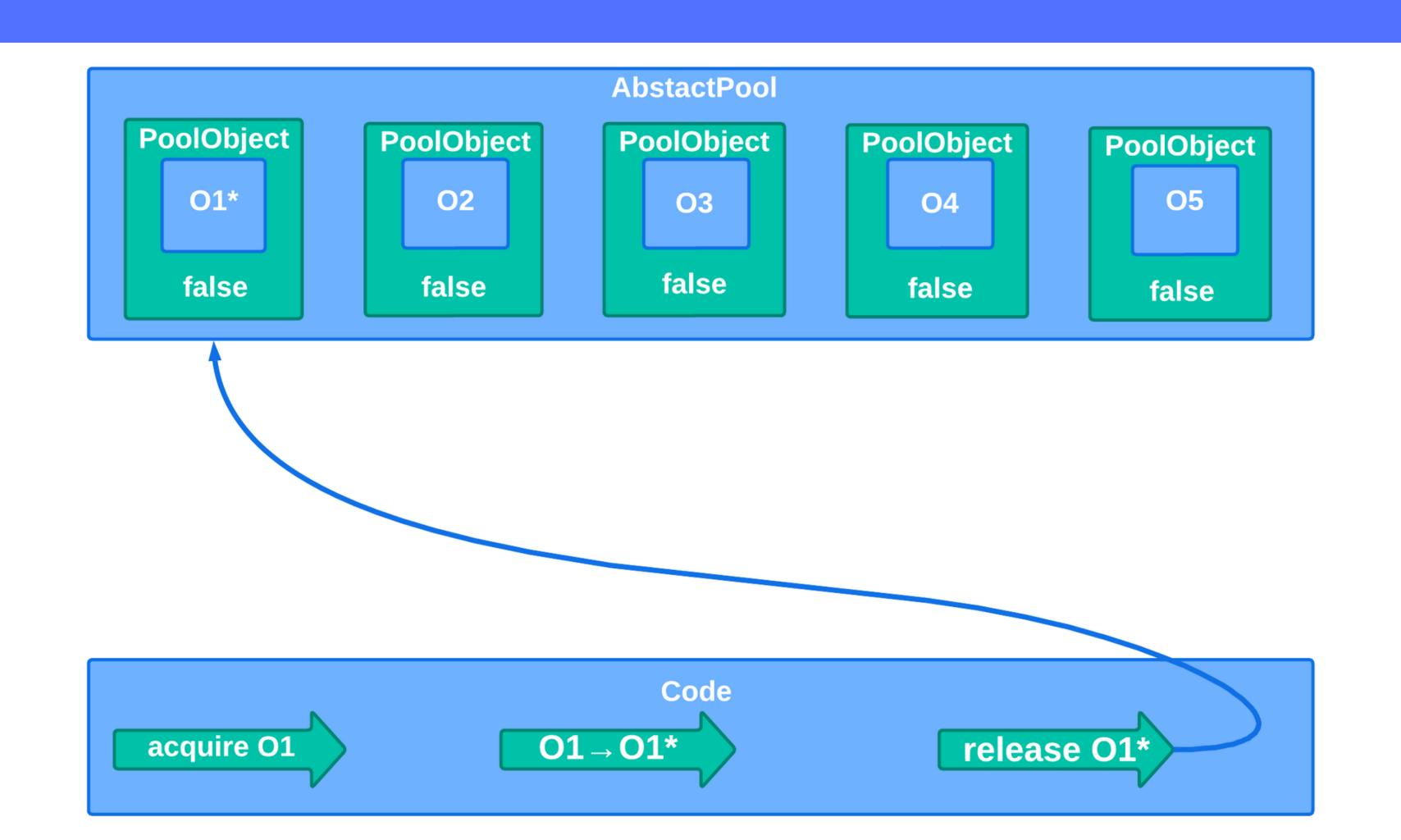


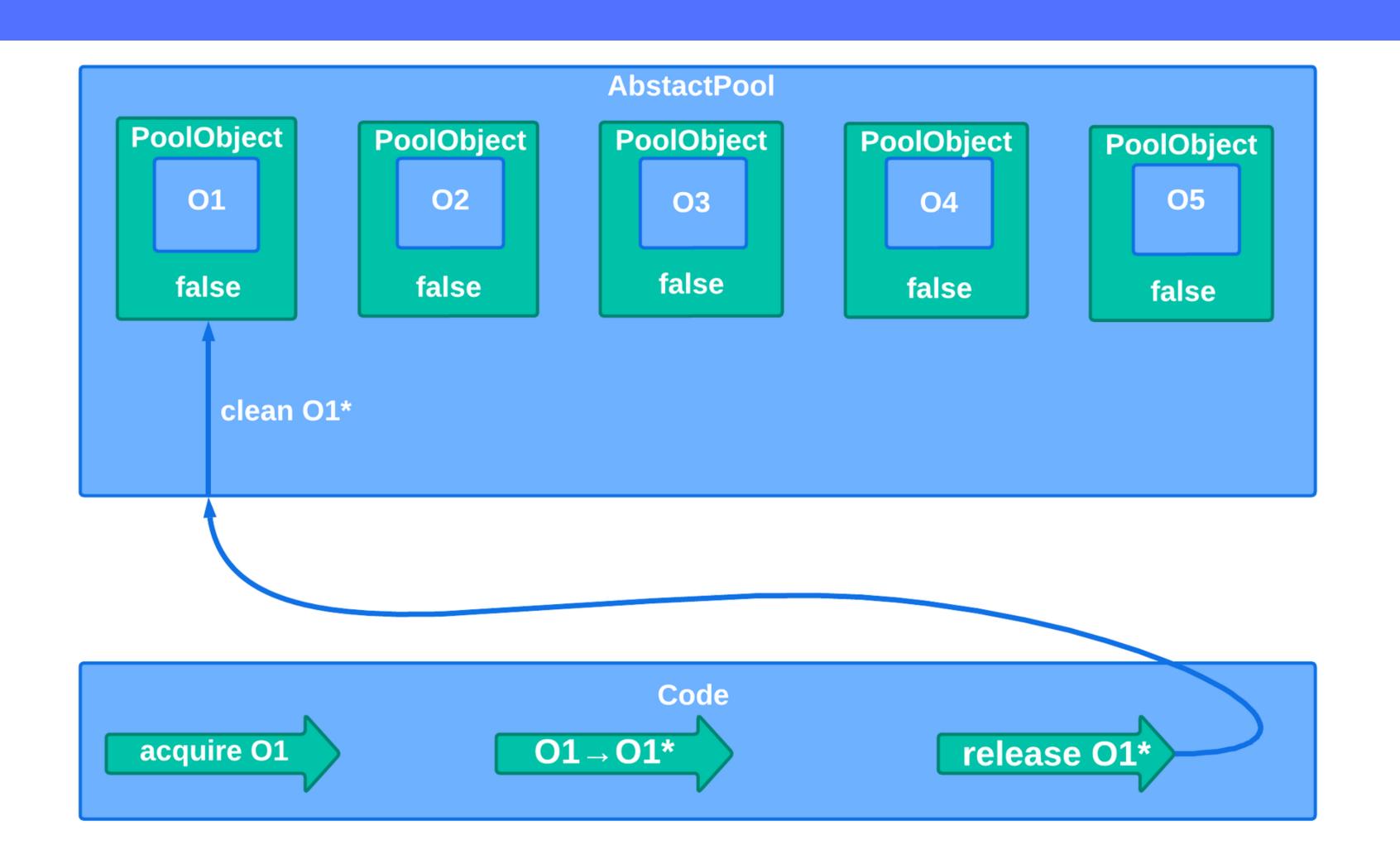


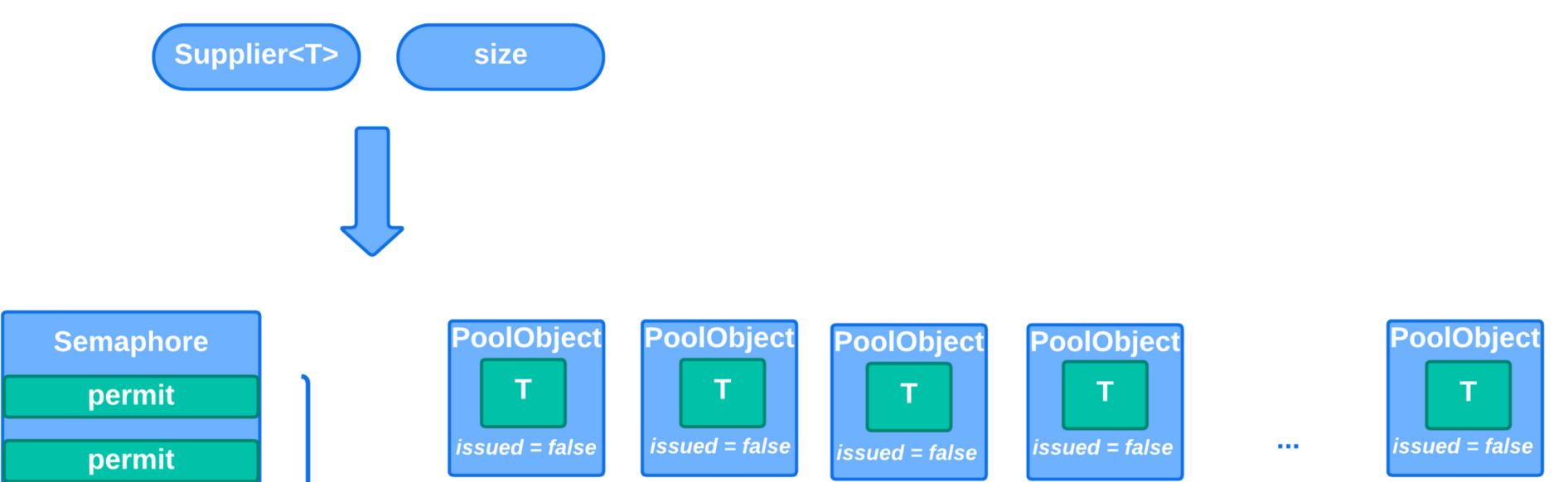












size

size

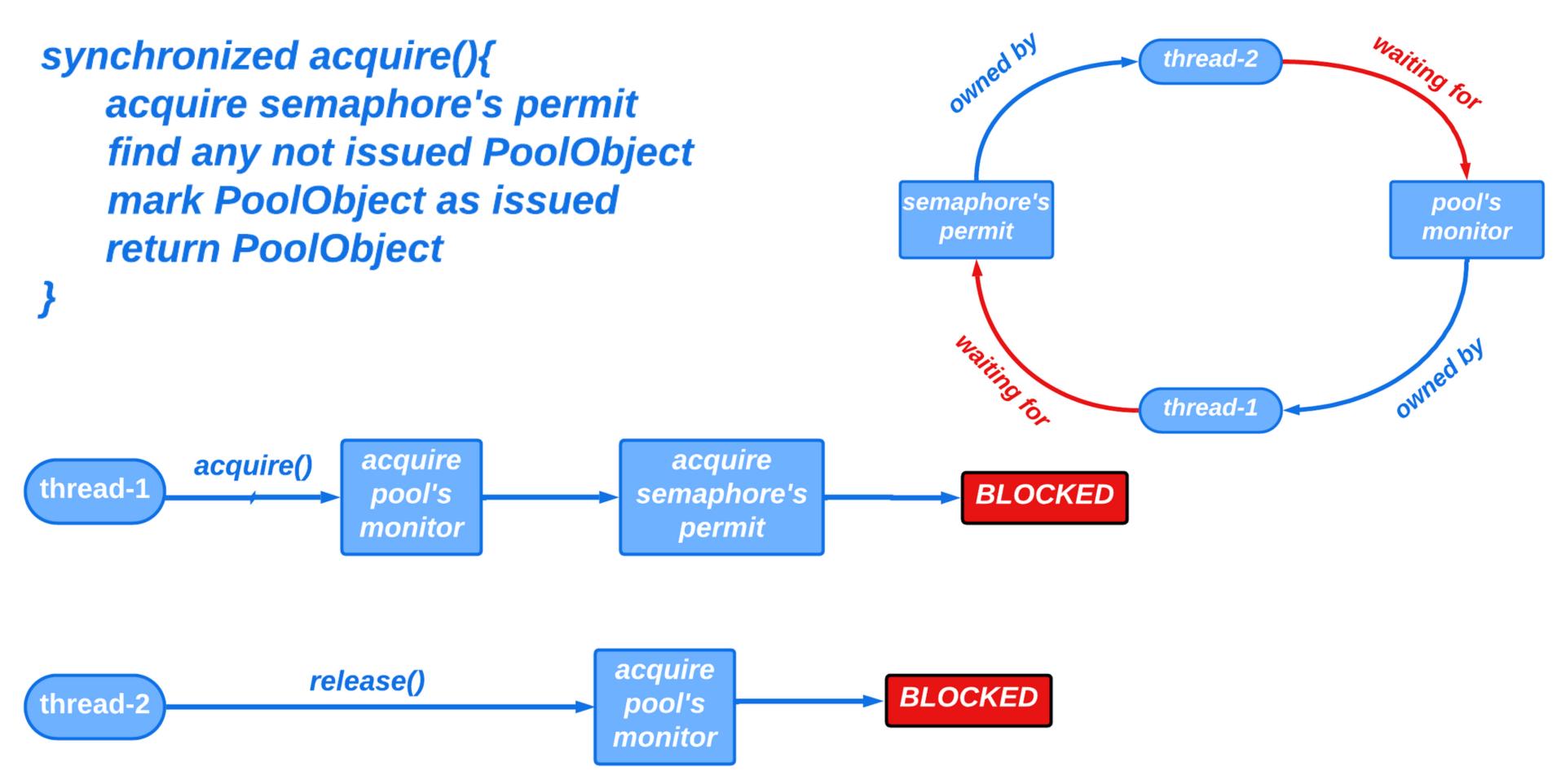
permit

\*\*\*

```
acquire() {
  acquire semaphore's permit
  acquire pool's monitor
     //cannot return null because of semaphore
     find any not issued PoolObject
     mark PoolObject as issued
  release pool's monitor
   return PoolObject
```

acquire(){
 acquire semaphore's permit
 find any not issued PoolObject
 mark PoolObject as issued
 return PoolObject

Thread-1	Thread-2
find not issued poolObject	
	find not issued poolObject
	mark poolObject as issued
	return poolObject
mark PoolObject as issued	
return poolObject	



```
release(T object) {
  acquire pool's monitor
     find appropriate issued PoolObject
     if(poolObject.isPresent()) {
        mark PoolObject as not issued
        clean object
        releasingSuccessful = true
     else {
         releasingSuccessful = false
  release pool's monitor
  if(releasingSuccessful) {
      release semaphore's permit
```

## ConnectionPool

**PoolObject** 

connection\_1

autoCommit: true

false

**PoolObject** 

connection\_2

autoCommit: true

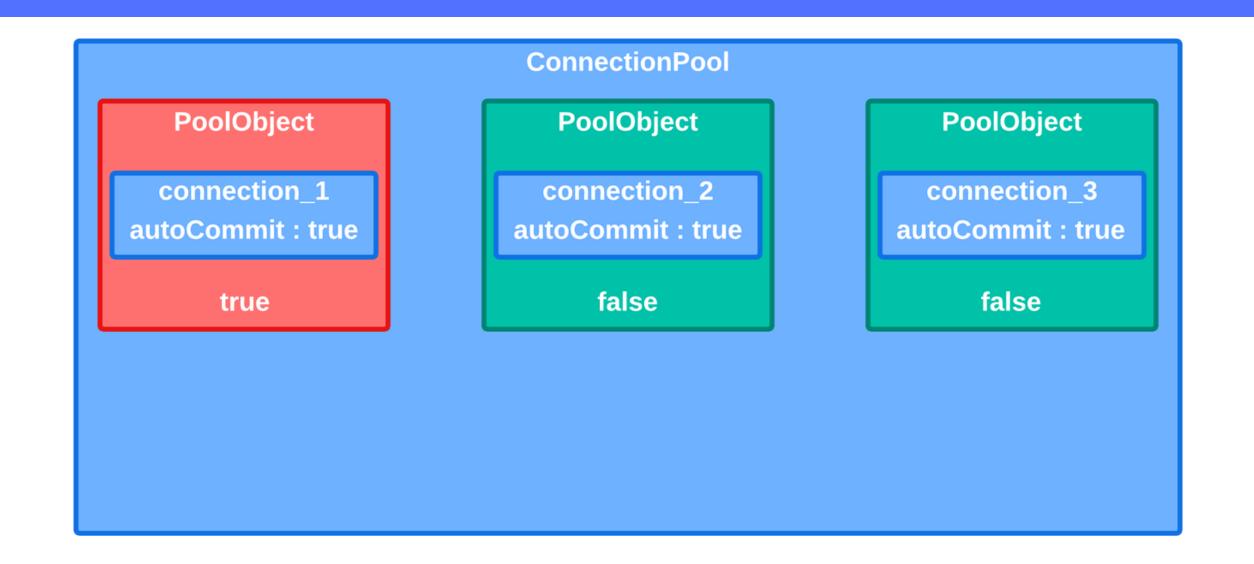
false

**PoolObject** 

connection\_3

autoCommit: true

false



acquire

ConnectionPoolTask

