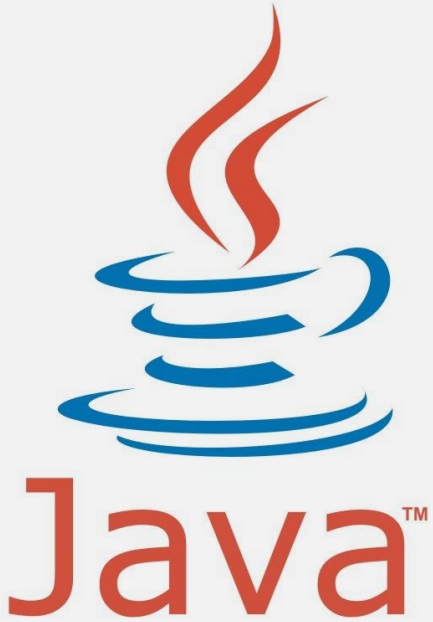


Core Java

Trainer: Nilesh Ghule

Thread creation

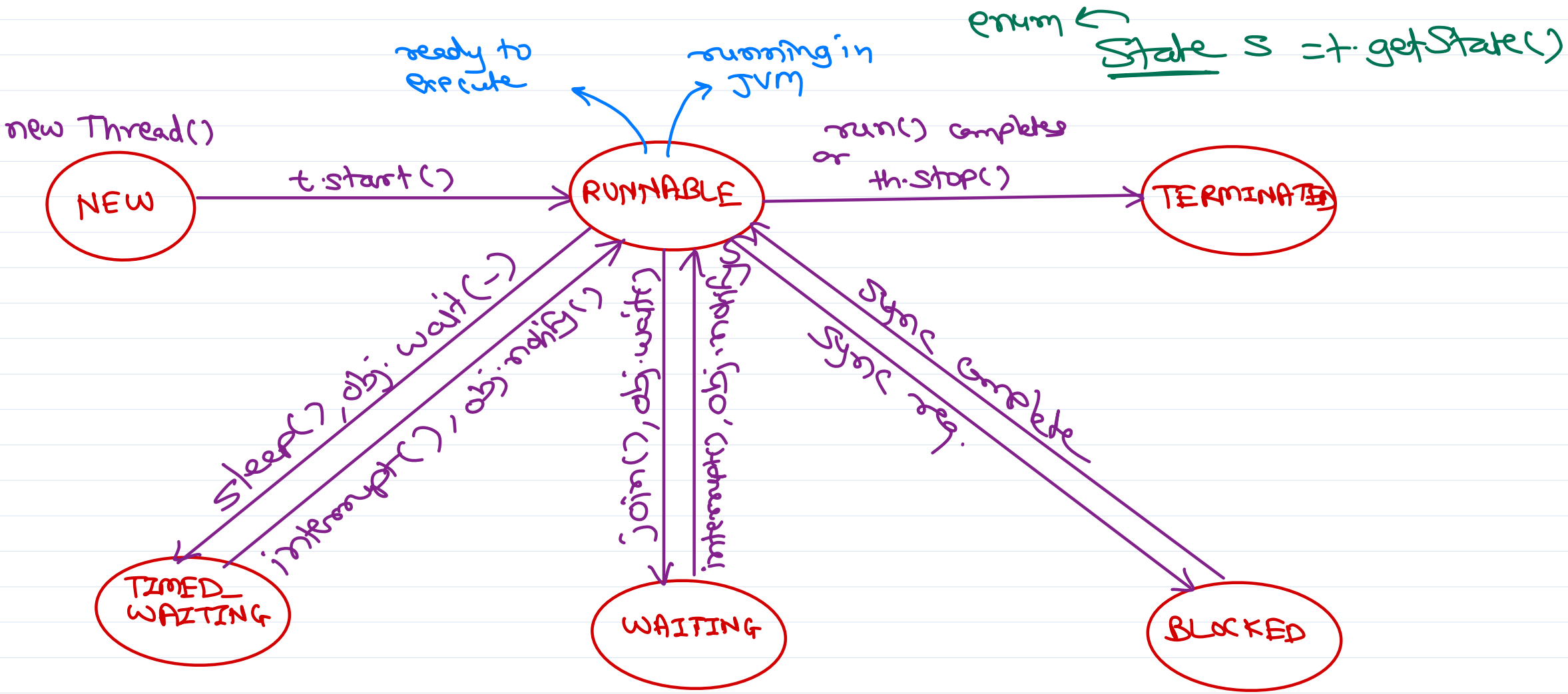
extends Thread

```
class MyThread extends Thread {
    :
    @Override
    void run() {
        //code
    }
}

in main(),
    MyThread t1 = new MyThread();
    t1.start();
```

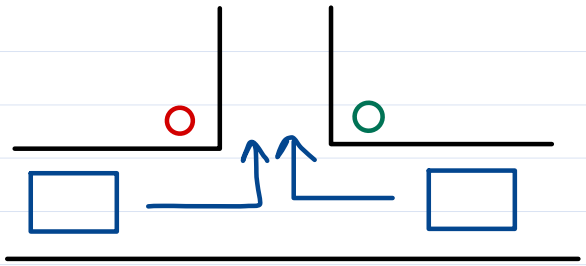
implements Runnable

```
class MyRunnable implements Runnable {
    @Override
    void run() {
        //code
    }
}

in main(),
    MyRunnable mr = new MyRunnable();
    Thread t2 = new Thread(mr);
    t2.start();
```

Thread life cycle



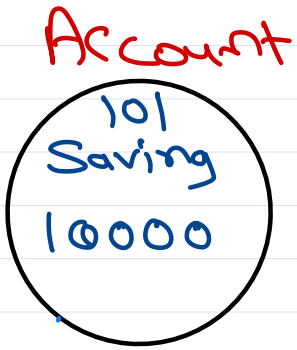
Race condition



Race condition: Multiple threads/processes try to access same resource at same time.

Synchronization: Allowing only one thread to access the resource while blocking others, so that resource can be accessed safely.

OS/JVM provides specialized objects to sync threads e.g. Monitor, ...



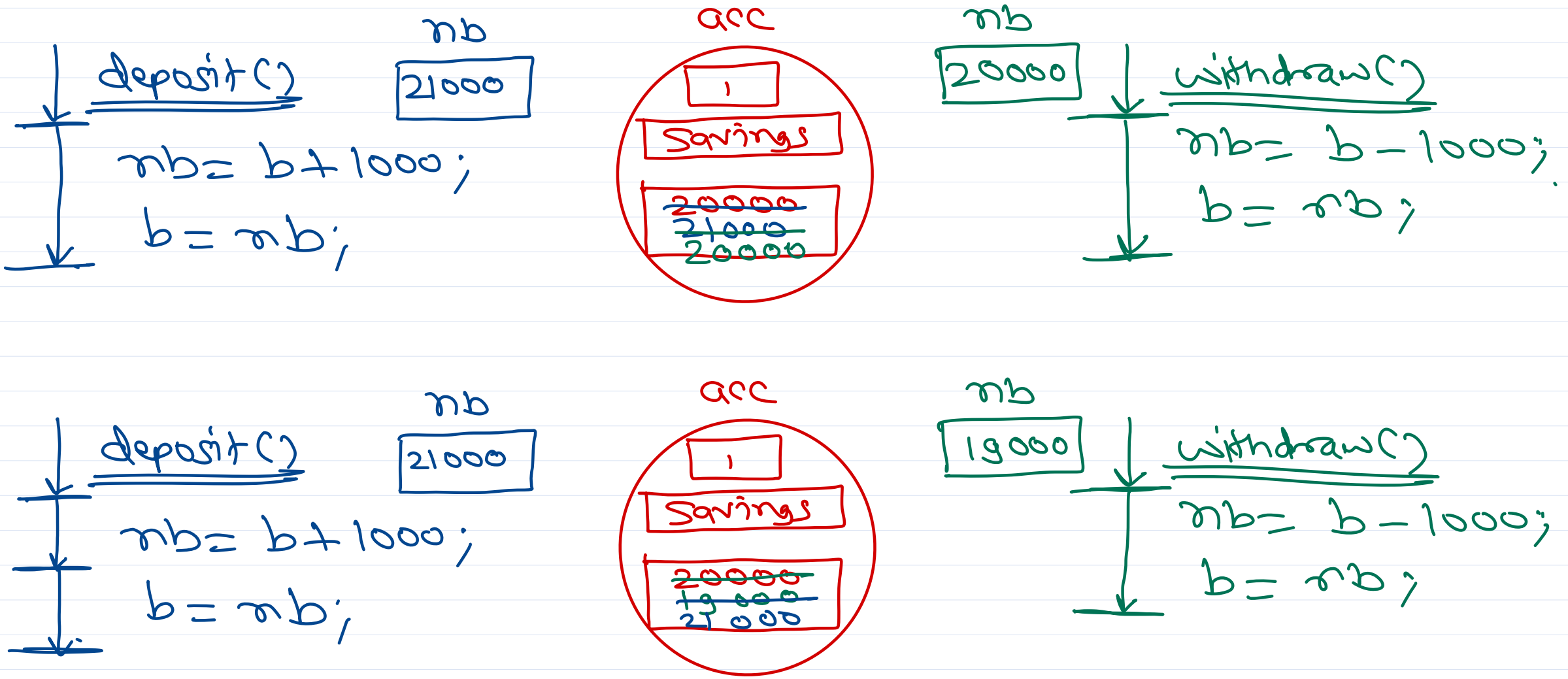
a.deposit(3000);

```
newbal = bal + 3000;
bal = newbal;
```

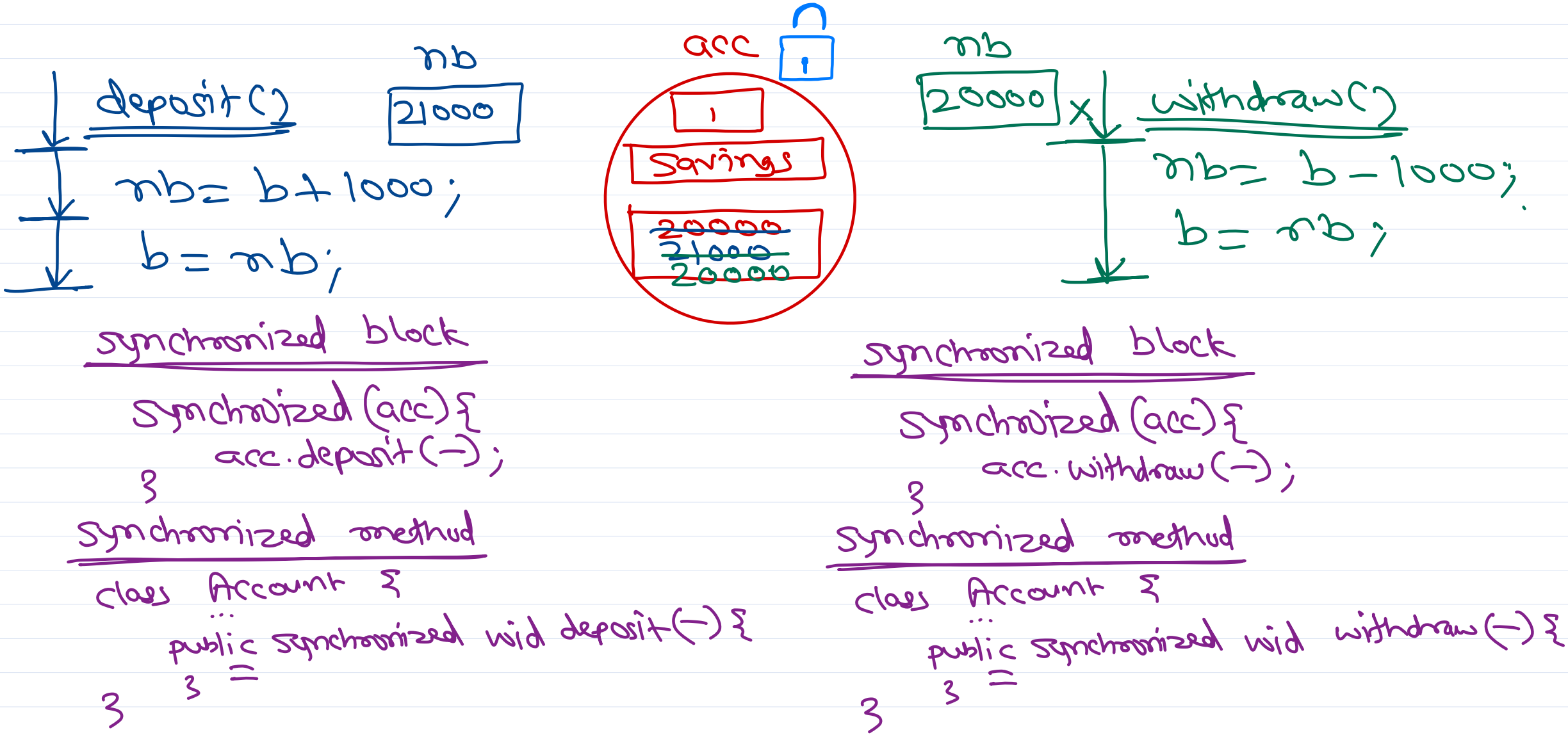
a.withdraw(2000);

```
newbal = bal - 2000;
bal = newbal;
```

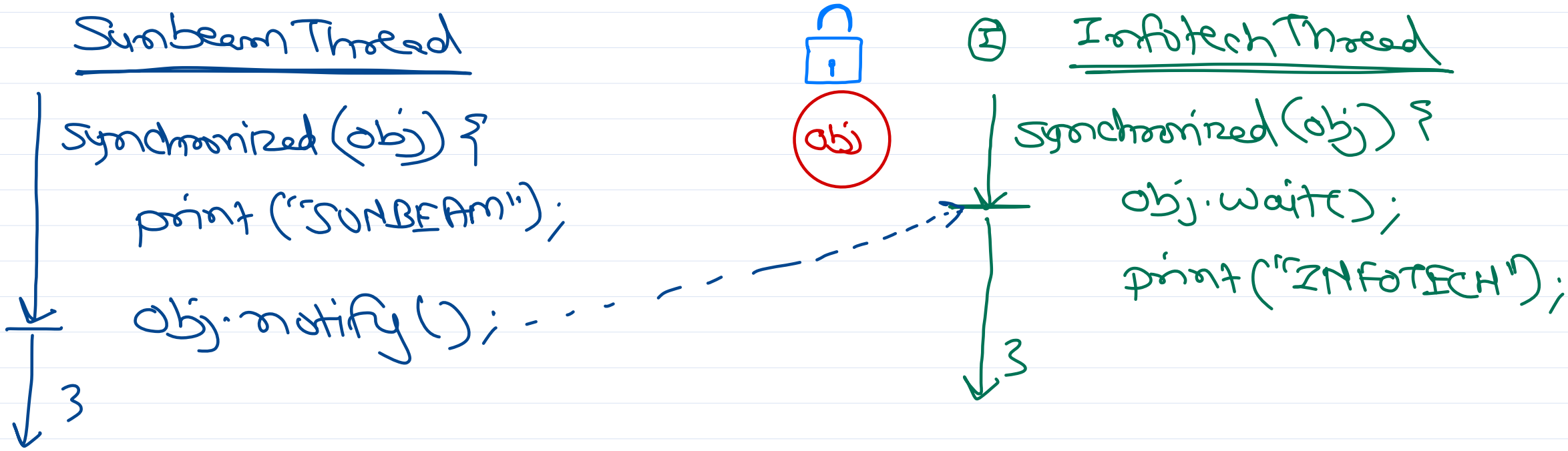
Race condition



Synchronisation



Inter- thread communication



Thank you!

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