

1)            T1    T2    T3

T2    T1

T3    T2

" join"

join

2) Java Lock synchronized

lock

## ConcurrentHashMap

Java

## Locks

3) java wait sleep

Java

wait

sleep

Wait

sleep

4 Java

Java

wait()    notify()

## Java 5

5 Java

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Java

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6 Java

Java

deadlock free code

N

N

n

2

Java

7) Java

java

8) Java volatile

Java      synchronized

```
Java 5      Java
           volatile
```

volatile

9)

Java

java

or writing code which is free of  
Concurrency practices in

data race or anyother race condition  
Java

10) `threaddump`

## Thread dump

UNIX  
" CTRL+Break"

kill -3

thread dump

windows

```
11) start()
```

```
run()
```

```
run()
```

java

Java

```
start()
```

```
run()
```

run()

```
start  run
```

12) Java

10

wait()    sleep()

join()

## InterruptedException

## How to deal with blocking methods in java

13) Java    CycliBarriar    CountdownLatch

JDK5

## CyclicBarrier

## CountDownLatch

14)

java

String

15)

Memory-interface

Java