

join练习 - Java多线程编程 - 飞扬学院

Java多线程编程

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小明设计了一个多线程程序，希望创建3个线程，每个线程先打印

Hello, xxx!

然后等待1秒，再打印：

Goodbye, xxx!

```
class HelloThread extends Thread {  
  
    String name;  
  
    public HelloThread(String name) {  
        this.name = name;  
    }  
  
    @Override  
    public void run() {  
        System.out.println("Hello, " + name + "!");  
        try {  
            Thread.sleep(1000);  
        } catch (InterruptedException e) {  
        }  
        System.out.println("Goodbye, " + name + "!");  
    }  
}
```

```
public class Main {

    public static void main(String[] args) throws Exception {
        List<Thread> threads = new ArrayList<>();
        for (String name : Arrays.asList("Bob", "Alice", "Tom")) {
            threads.add(new HelloThread(name));
        }
        System.out.println("START");
        for (Thread t : threads) {
            t.start();
            t.join();
        }
        System.out.println("END");
    }
}
```

小明期望的输出是：

```
START
Hello, Bob!
Hello, Alice!
Hello, Tom!
(等待约1秒)
Goodbye, Bob!
Goodbye, Alice!
Goodbye, Tom!
END
```

但实际输出却是：

```
START
Hello, Bob!
(等待约1秒)
Goodbye, Bob!
Hello, Alice!
(等待约1秒)
Goodbye, Alice!
Hello, Tom!
(等待约1秒)
```

Goodbye, Tom!

END

请帮他找找问题原因，并修复。