

Aim:

Write a Java program that uses three threads to perform the below actions:

1. First thread should print "Good morning" for every 1 second for 2 times
2. Second thread should print "Hello" for every 1 seconds for 2 times
3. Third thread should print "Welcome" for every 3 seconds for 1 times

Write appropriate **constructor** in the `Printer` class which implements `Runnable` interface to take three arguments : **message**, **delay** and **count** of types **String**, **int** and **int** respectively.

Write code in the `Printer.run()` method to print the **message** with appropriate **delay** and for number of times mentioned in **count**.

Write a class called `ThreadDemo` with the `main()` method which instantiates and executes three instances of the above mentioned `Printer` class as threads to produce the desired output.

[**Note:** If you want to sleep for **2** seconds you should call `Thread.sleep(2000);` as the `Thread.sleep(...)` method takes milliseconds as argument.]

Note: Please don't change the package name.

Source Code:

q11349/ThreadDemo.java

```
package q11349;
public class ThreadDemo {
    public static void main(String[] args) throws Exception {
        Thread t1 = new Thread(new Printer("Good morning", 1, 2));
        Thread t2 = new Thread(new Printer("Hello", 1, 2));
        Thread t3 = new Thread(new Printer("Welcome", 3, 1));
        t1.start();
        t2.start();
        t3.start();
        t1.join();
        t2.join();
        t3.join();
        System.out.println("All the three threads t1, t2 and t3 have completed execution.");
    }
}
class Printer implements Runnable {
    String message;
    int delay, count;
    Printer (String a, int b, int c) {
        message = a; delay = b; count = c;
    }
    public void run() {
        for(int i=0; i<count; i++) {
            System.out.println(message);
            try{
                Thread.sleep(delay*1000);
            }
            catch (InterruptedException ie) {
                System.out.println(ie);
            }
        }
    }
}
```

```
}  
  }  
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Good morning
Hello
Welcome
Good morning
Hello
All the three threads t1, t2 and t3 have completed execution.