```
1: // $Id: hellothread.java,v 1.2 2018-05-17 16:08:47-07 - - $
 3: // Hello World example using two threads.
 4: // class greeter extends Thread.
 6: import static java.lang.System.*;
7: import static java.lang.String.*;
8:
9: class hellothread {
       static long nanostart = nanoTime();
10:
11:
12:
       static void print (String fmt, Object... args) {
13:
          Thread self = Thread.currentThread();
          double millisec = (nanoTime() - nanostart) / 1e6;
14:
          String ident = format ("%10.3f: %s(%d): ",
15:
16:
                                  millisec, self.getName(), self.getId());
17:
          String message = format (fmt, args);
18:
          out.println (ident + message);
19:
          out.flush();
20:
       }
21:
22:
       static class greeter extends Thread {
23:
          long delay_msec;
24:
          greeter (String threadname, int delay) {
25:
             super (threadname);
26:
             delay_msec = delay;
27:
28:
          public void run() {
29:
             print ("starting");
30:
             for (int count = 0; count < 10; ++count) {</pre>
31:
                try {
32:
                    sleep (delay_msec);
33:
                }catch (InterruptedException exn) {
34:
                   print ("interrupted: %s", exn.getMessage());
35:
36:
                print ("slept %d msec, cycle %d", delay_msec, count);
37:
             }
38:
             print ("finished");
39:
          }
40:
       }
41:
42:
       public static void main (String[] args) {
43:
          print ("starting");
44:
          greeter hello = new greeter ("Hello", 500);
45:
          greeter world = new greeter ("World", 800);
46:
          hello.start();
47:
          world.start();
48:
          print ("finished");
49:
       }
50:
51: }
52:
53: //TEST// ./hellothread >hellothread.out
54: //TEST// mkpspdf hellothread.ps hellothread.java* hellothread.out
55:
```

05/17/18 16:09:13

## \$cmps112-wm/Lecture-notes/java-threads/ hellothread.java.log

1/1

\$cmps112-wm/Lecture-notes/java-threads/ hellothread.out

1/1

```
05/17/18
16:09:22
```

```
1:
        0.046: main(1): starting
2:
        8.555: main(1): finished
3:
        8.913: Hello(8): starting
        9.705: World(9): starting
4:
5:
      509.595: Hello(8): slept 500 msec, cycle 0
      810.111: World(9): slept 800 msec, cycle 0
6:
7:
     1010.163: Hello(8): slept 500 msec, cycle 1
8:
     1516.162: Hello(8): slept 500 msec, cycle 2
9:
     1619.163: World(9): slept 800 msec, cycle 1
```

10: 2016.747: Hello(8): slept 500 msec, cycle 3
11: 2419.810: World(9): slept 800 msec, cycle 2
12: 2517.414: Hello(8): slept 500 msec, cycle 4
13: 3018.137: Hello(8): slept 500 msec, cycle 5
14: 3220.501: World(9): slept 800 msec, cycle 3
15: 3518.828: Hello(8): slept 500 msec, cycle 6

16: 4019.427: Hello(8): slept 500 msec, cycle 7
17: 4021.369: World(9): slept 800 msec, cycle 4
18: 4519.979: Hello(8): slept 500 msec, cycle 8
19: 4821.841: World(9): slept 800 msec, cycle 5
20: 5020.574: Hello(8): slept 500 msec, cycle 9

21: 5020.989: Hello(8): finished

22: 5622.450: World(9): slept 800 msec, cycle 6
23: 6423.022: World(9): slept 800 msec, cycle 7
24: 7223.663: World(9): slept 800 msec, cycle 8
25: 8024.264: World(9): slept 800 msec, cycle 9

26: 8024.654: World(9): finished