

prog_05_131

```
prog_05_131.java X
1 package test;
2
3 public class prog_05_131 {
4     static int matrixA[][] , matrixB[][] , matrixC[][];
5     static class Main1 extends Thread
6     {
7         int sz;
8         Main1(int size){sz = size;}
9         public void run() {
10             int i,j,k;
11
12             for(i=0;i<sz;i++) {
13                 for(j=0;j<sz;j++) {
14                     for(k=0;k<sz;k++) {
15                         matrixC[i][j] = matrixA[i][k]*matrixB[k][j];
16                     }
17                 }
18             }
19             System.out.println("Finishing thread 1...");
20         }
21     }
22     static class Main2 extends Thread
23     {
24         int sz;
25         Main2(int size){sz = size;}
26         public void run() {
27             int i,j,k;
28             for (i=0;i<sz;i++) {
29                 for(j=0;j<sz;j++) {
30                     for(k=0;k<sz;k++) {
31                         matrixC[i][j] = matrixA[i][k] *matrixB[k][j];
32                     }
33                 }
34             }
35             System.out.println("Finishing thread 2...");
36         }
37     }
38     static class Main3 extends Thread
39     {
40         int sz;
41         Main3(int size){sz = size;}
42         public void run() {
43             int i,j,k;
44             for(i=0;i<sz;i++) {
45                 for(j=0;j<sz;j++) {
46                     for(k=0;k<sz;k++) {
47                         matrixC[i][j] = matrixA[i][k]*matrixB[k][j];
48                     }
49                 }
50             }
51             System.out.println("Finishing thread 3...");
52         }
53     }
54     public static void main(String atgs[]) {
55         int msize = 512,i,j;
56
57         matrixA = new int[msize][msize];
58         matrixB = new int[msize][msize];
59         matrixC = new int[msize][msize];
60
61         prog_05_131.Main1 main1 = new prog_05_131.Main1(msize);
62         prog_05_131.Main2 main2 = new prog_05_131.Main2(msize);
63         prog_05_131.Main3 main3 = new prog_05_131.Main3(msize);
64
65         main1.setPriority(7);main1.start();
66         main2.setPriority(1);main2.start();
67         main3.setPriority(10);main3.start();
68
69         try {
70             main1.join();
71             main2.join();
72             main3.join();
73         }catch(InterruptedException e) {}
74         System.out.println("Finishing main thread...");
75     }
76 }
```

<terminated> prog_05_131 [Java Application]

Finishing thread 2...

Finishing thread 1...

Finishing thread 3...

Finishing main thread...

prog_05_23

```
1 package test;
2
3 class Scheduler extends Thread{
4     Thread[] runq;
5     int slice_unit,tcnt;
6
7     Scheduler(int tunit){
8         slice_unit = tunit;
9         runq = new Thread[5]; tcnt = 0;
10    }
11    void add_thread(Thread th) {
12        runq[tcnt++] = th;
13    }
14    void cpu_yield(int pri) {
15        try {
16            Thread.sleep(pri*slice_unit);
17        }
18        catch (InterruptedException e) {};
19    }
20    public void run() {
21        int pri = 1, t;
22        Thread cth;
23        while(tcnt == 0);
24        while(pri > 0) {
25            for(t=pri = 0; t<tcnt; t++) {
26                cth = runq[t];
27                if(cth.isAlive()) {
28                    pri = cth.getPriority();
29                    cth.setPriority(8);
30                    /*cth.resume();*/cpu_yield(pri);
31                    if (cth.isAlive()) {
32                        cth.setPriority(pri);
33                    }
34                }
35            }
36        }
37    }
38 }
39
40 public class prog_05_23 {
41     static int matrixA[][] ,matrixB[][] ,matrixC[][];
42     static class Main extends Thread
43     {
44         int id,sz;
45         Main(int n,int size){id = n; sz = size;}
46         public void run() {
47             int i,j,k;
48
49             for (i=0;i<sz;i++) {
50                 for(j=0;j<sz;j++) {
51                     for(k=0;k<sz;k++) {
52                         matrixC[i][j] = matrixA[i][k]*matrixB[k][j];
53                     }
54                 }
55             }
56             System.out.println("Finishing thread" + id + "...");
57         }
58     }
59 }
60
61 terminated prog_05_23 java application ;
```

```
Finishing thread 1...
Finishing thread 3...
Finishing thread 2...
Finishing main thread...
```