CMPE 382 Operating Systems, Spring 2023-2024

Homework 2- Synchronization: Semaphores and Critical Section Implementation Outputs

This PDF file includes results for: **29** and **40** txt files for (threads: 1 - 4 - 10 - 32) 29 Files -1 Thread:

```
time ./main myDir 1
The PID of the main process is 36226
Thread 0 has found 35 primes in file file1.txt.
Thread 0 has found 39 primes in file file27.txt.
Thread 0 has found 38 primes in file file10.txt.
Thread 0 has found 1 primes in file file4.txt.
Thread 0 has found 69 primes in file file25.txt.
Thread 0 has found 83 primes in file file6.txt.
Thread 0 has found 81 primes in file file12.txt.
 hread 0 has
                    found 89 primes
                                               in file file9.txt.
Thread 0 has found 98 primes
                                              in file file26.txt.
                                              in file file22.txt.
in file file17.txt.
in file file2.txt.
Thread 0 has found 76 primes
                    found 10 primes
Thread 0 has
              has
                    found
                              12 primes
Thread 0
Thread 0 has
                    found 46 primes
                                               in file file29.txt.
             has found 53 primes in file file18.txt. has found 50 primes in file file19.txt.
Thread 0 has
Thread 0
                                              in file file21.txt.
in file file13.txt.
Thread 0
                    found
                              32 primes
              has
              has
                    found
                              93 primes
Thread 0
                                              in file file7.txt.
in file file8.txt.
in file file20.txt.
in file file24.txt.
Thread 0
              has
                    found
                              53 primes
Thread 0 has
                    found 61 primes
Thread 0 has found 38 primes
                    found
                              64 primes
Thread 0
              has
Thread 0 has
                    found 21 primes
                                               in file file3.txt.
Thread O has found
                              13 primes
                                                   file file23.txt
Thread 0 has found 89 primes in file file15.txt.
Thread 0 has found 95 primes in file file11.txt.
Thread 0 has found 22 primes in file file16.txt.
Thread 0 has found 90 primes in file file28.txt.
Thread 0 has found 82 primes in file file5.txt.
Thread 0 has found 18 primes in file file14.txt.
            0m0,039s
real
             0m0 .004s
```

29 Files - 4 Thread:

```
The PID of the main process is 36256
Thread 0 has found 35 primes in file file1.txt.
Thread 2 has found 50 primes in file file19.txt.
Thread 0 has found 39 primes in file file27.txt.
Thread 1 has found 89 primes in file file9.txt.
Thread 2 has found 32 primes in file file21.txt.
Thread 0 has found 38 primes in file file10.txt.
                                         1 primes in file file4.txt.
 Thread
                   has
                            found
                  has found 69 primes in file file25.txt. has found 93 primes in file file13.txt. has found 98 primes in file file26.txt. has found 53 primes in file file7.txt.
Thread 0
Thread 2
Thread
 Thread
                           found 83 primes in file file6.txt.
found 76 primes in file file22.txt.
found 10 primes in file file17.txt.
Thread 0
                    has
Thread
                   has
 Thread
                   has
                                         21 primes in file file3.txt.
12 primes in file file2.txt.
13 primes in file file23.txt.
 Thread
                   has
                            found
                            found
  hread
                    has
Thread
                   has
                            found
                   has found 61 primes in file file8.txt. has found 46 primes in file file29.txt.
Thread
 Thread
                                         89 primes
                                                               in file file15.txt.
  Thread
                    has
                            found
                                        81 primes in file file12.txt.
18 primes in file file14.txt.
38 primes in file file20.txt.
53 primes in file file18.txt.
Thread 0
                   has found 81 primes
Thread
Thread
                   has found
                            found
                   has
                    has
                            found
 Thread
                  has found 95 primes in file file11.txt.
has found 64 primes in file file24.txt.
has found 22 primes in file file16.txt.
Thread
Thread
 Thread
Thread 3 has found 90 primes in file file28.txt
Thread 3 has found 82 primes in file file5.txt.
                                                                                file28.txt.
                 0m0,019s
0m0,029s
 real
 user
                  0m0,015s
```

29 Files – 10 Thread:

```
💶$ time ./main myDir 10
The PID of the main process is 36238
Thread 0 has found 35 primes in file file1.txt.
Thread 1 has found 38 primes in file file10.txt.
Thread 1 has found 1 primes in file file4.txt.
Thread 0 has found 39 primes in file file27.txt.
Thread 5 has found 10 primes in file file17.txt.
Thread 2 has found 69 primes in file file25.txt.
Thread 5 has found 12 primes in file file2.txt.
Thread 6 has found 46 primes in file file29.txt.
Thread 0 has
               found 64 primes in file file24.txt.
Thread 4 has
               found
                      98 primes in file file26.txt.
               found 53 primes in file file18.txt.
Thread 6 has
Thread 0 has found 21 primes in file file3.txt.
Thread 0 has found 13 primes in file file23.txt.
Thread 2 has found 83 primes in file file6.txt.
Thread 4 has
               found
                      76 primes in file file22.txt.
               found 81 primes in file file12.txt.
Thread 3 has
                      93 primes in file file13.txt.
Thread 8 has
               found
Thread 0 has
               found 89 primes in file file15.txt.
Thread 9 has found 61 primes in file file8.txt.
Thread 3 has found 89 primes in file file9.txt.
Thread 9 has found 38 primes in file file20.txt.
Thread 8 has found 53 primes in file file7.txt.
                      50 primes in file file19.txt.
Thread 7 has
               found
Thread 0 has found 95 primes in file file11.txt.
Thread 0 has found 22 primes in file file16.txt.
Thread 7 has found 32 primes in file file21.txt.
Thread 0 has found 90 primes in file file28.txt.
Thread 0 has found 82 primes in file file5.txt.
Thread 0 has found 18 primes in file file14.txt.
real
         0m0,017s
         0m0,031s
user
sys
         0m0,012s
```

29 Files – 32 Thread:

```
HW II$ time ./main myDir 32
The PID of the main process is 36383
Thread 0 has found 35 primes in file file1.txt.
Thread 0 has found 39 primes in file file27.txt.
Thread 0 has found 38 primes in file file10.txt.
Thread 0 has found 1 primes in file file4.txt.
Thread 0 has found 69 primes in file file25.txt.
Thread 0 has found 83 primes in file file6.txt.
Thread 0 has found 81 primes in file file12.txt.
Thread 0 has found 89 primes in file file9.txt.
Thread 0 has found 98 primes in file file26.txt.
                                 76 primes in file file22.txt.
10 primes in file file17.txt.
Thread 0 has found
Thread 0 has
                       found
Thread 0 has found 12 primes in file file2.txt.
Thread 0 has found 46 primes in file file29.txt.
Thread 0 has found 53 primes in file file18.txt.
Thread 0 has found 50 primes in file file19.txt.
Thread 0 has found 32 primes in file file21.txt.
Thread 0 has found 93 primes in file file13.txt.
Thread 0 has found 53 primes in file file7.txt.
Thread 0 has found 61 primes in file file8.txt.
Thread 0 has found 38 primes in file file20.txt.
Thread 0 has found 64 primes in file file24.txt.
Thread 0 has found 21 primes in file file3.txt.
Thread 0 has found 13 primes in file file23.txt.
Thread 0 has found 89 primes in file file15.txt.
Thread 0 has found 95 primes in file file11.txt.
Thread 0 has found 22 primes in file file16.txt.
Thread 0 has found 90 primes in file file28.txt.
Thread 0 has found 82 primes in file file5.txt.
Thread 0 has found 18 primes in file file14.txt.
real
             0m0,040s
user
              0m0.035s
sys
              0m0,009s
```

40 Files - 1 Thread:

```
DaranerCan@baran-ubuntu:-/Desktop/382/HW II$ time ./main myDir 1
The PID of the main process is 36573
Thread 0 has found 2 primes in file file35.txt.
Thread 0 has found 24 primes in file file11.txt.
Thread 0 has found 92 primes in file file31.txt.
Thread 0 has found 75 primes in file file30.txt.
Thread 0 has found 13 primes in file file30.txt.
Thread 0 has found 52 primes in file file30.txt.
Thread 0 has found 52 primes in file file10.txt.
Thread 0 has found 68 primes in file file10.txt.
Thread 0 has found 32 primes in file file20.txt.
Thread 0 has found 32 primes in file file25.txt.
Thread 0 has found 7 primes in file file6.txt.
Thread 0 has found 80 primes in file file20.txt.
Thread 0 has found 80 primes in file file20.txt.
Thread 0 has found 80 primes in file file21.txt.
Thread 0 has found 45 primes in file file22.txt.
Thread 0 has found 86 primes in file file22.txt.
Thread 0 has found 60 primes in file file21.txt.
Thread 0 has found 64 primes in file file22.txt.
Thread 0 has found 65 primes in file file21.txt.
Thread 0 has found 67 primes in file file22.txt.
Thread 0 has found 68 primes in file file18.txt.
Thread 0 has found 85 primes in file file19.txt.
Thread 0 has found 85 primes in file file19.txt.
Thread 0 has found 27 primes in file file19.txt.
Thread 0 has found 27 primes in file file21.txt.
Thread 0 has found 27 primes in file file21.txt.
Thread 0 has found 27 primes in file file21.txt.
Thread 0 has found 37 primes in file file23.txt.
Thread 0 has found 39 primes in file file31.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 39 primes in file file3.txt.
Thread 0 has found 40 primes in file file3.txt.
Thread 0 has found 40 primes in file file3.txt
```

40 Files – 4 Thread:

```
baranercan@baran-ubuntu:-/Desktop/382/HW II$ time ./main myDir 4
The PID of the main process is 36581
Thread 0 has found 2 primes in file file35.txt.
Thread 1 has found 7 primes in file file6.txt.
Thread 3 has found 24 primes in file file1.txt.
Thread 3 has found 59 primes in file file23.txt.
Thread 3 has found 5 primes in file file30.txt.
Thread 2 has found 71 primes in file file19.txt.
Thread 1 has found 80 primes in file file19.txt.
Thread 3 has found 39 primes in file file15.txt.
Thread 3 has found 39 primes in file file21.txt.
Thread 6 has found 79 primes in file file31.txt.
Thread 1 has found 61 primes in file file31.txt.
Thread 1 has found 61 primes in file file26.txt.
Thread 1 has found 47 primes in file file21.txt.
Thread 1 has found 48 primes in file file21.txt.
Thread 0 has found 75 primes in file file39.txt.
Thread 0 has found 86 primes in file file11.txt.
Thread 0 has found 87 primes in file file11.txt.
Thread 0 has found 80 primes in file file36.txt.
Thread 0 has found 52 primes in file file31.txt.
Thread 1 has found 86 primes in file file38.txt.
Thread 1 has found 57 primes in file file38.txt.
Thread 1 has found 57 primes in file file31.txt.
Thread 1 has found 57 primes in file file31.txt.
Thread 1 has found 65 primes in file file32.txt.
Thread 1 has found 47 primes in file file31.txt.
Thread 3 has found 45 primes in file file32.txt.
Thread 3 has found 45 primes in file file32.txt.
Thread 3 has found 64 primes in file file31.txt.
Thread 3 has found 64 primes in file file32.txt.
Thread 3 has found 65 primes in file file32.txt.
Thread 6 has found 67 primes in file file32.txt.
Thread 7 has found 68 primes in file file32.txt.
Thread 8 has found 68 primes in file file32.txt.
Thread 9 has found 69 primes in file file32.txt.
Thread 1 has found 69 primes in file file32.txt.
Thread 2 has found 35 primes in file file33.txt.
Thread 2 has found 37 primes in file file33.txt.
Thread 3 has found 68 primes in file file34.txt.
Thread 2 has found 85 primes in file file34.txt.
Thread 2 has found 85 primes in file f
```

40 Files - 10 Thread:

```
baranercangbaran-ubuntu:-/Desktop/382/MW II$ time ./main myDir 10
The PID of the main process is 36586
Thread 0 has found 2 primes in file file35.txt.
Thread 1 has found 13 primes in file file36.txt.
Thread 2 has found 24 primes in file file4.txt.
Thread 2 has found 22 primes in file file6.txt.
Thread 2 has found 2 primes in file file6.txt.
Thread 2 has found 7 primes in file file6.txt.
Thread 1 has found 52 primes in file file6.txt.
Thread 1 has found 52 primes in file file6.txt.
Thread 1 has found 52 primes in file file31.txt.
Thread 1 has found 52 primes in file file11.txt.
Thread 6 has found 75 primes in file file19.txt.
Thread 1 has found 68 primes in file file19.txt.
Thread 6 has found 75 primes in file file19.txt.
Thread 6 has found 71 primes in file file19.txt.
Thread 6 has found 80 primes in file file12.txt.
Thread 6 has found 111 primes in file file20.txt.
Thread 6 has found 7 primes in file file31.txt.
Thread 6 has found 7 primes in file file31.txt.
Thread 6 has found 61 primes in file file31.txt.
Thread 6 has found 7 primes in file file31.txt.
Thread 3 has found 61 primes in file file31.txt.
Thread 3 has found 64 primes in file file31.txt.
Thread 5 has found 80 primes in file file31.txt.
Thread 5 has found 80 primes in file file31.txt.
Thread 5 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file32.txt.
Thread 7 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file31.txt.
Thread 7 has found 80 primes in file file32.txt.
Thread 9 has found 63 primes in file file31.txt.
Thread 9 has found 80 primes in file file51.txt.
Thread 9 has found 80 primes in file file51.txt.
Thread 9 has found 80 primes in file file51.txt.
Thread 9 has found 50 primes in file file51.txt.
Thread 9 has found 50 primes in file file51.txt.
Thread 9 has found 57 primes in file file61.txt.
Thread 8 has found 57 primes in file file51
```

40 Files - 32 Thread:

```
baranercan@baran-ubuntu:-/Desktop/382/HW II$ time ./main myDir 32
The PID of the main process is 36597
Thread 0 has found 24 primes in file file35.txt.
Thread 1 has found 24 primes in file file15.txt.
Thread 0 has found 39 primes in file file15.txt.
Thread 6 has found 52 primes in file file21.txt.
Thread 5 has found 52 primes in file file40.txt.
Thread 27 has found 7 primes in file file31.txt.
Thread 20 has found 92 primes in file file19.txt.
Thread 3 has found 92 primes in file file11.txt.
Thread 3 has found 75 primes in file file21.txt.
Thread 21 has found 39 primes in file file27.txt.
Thread 22 has found 37 primes in file file20.txt.
Thread 26 has found 35 primes in file file20.txt.
Thread 19 has found 85 primes in file file20.txt.
Thread 19 has found 85 primes in file file38.txt.
Thread 29 has found 86 primes in file file38.txt.
Thread 29 has found 86 primes in file file3.txt.
Thread 21 has found 80 primes in file file31.txt.
Thread 25 has found 80 primes in file file32.txt.
Thread 26 has found 87 primes in file file31.txt.
Thread 18 has found 80 primes in file file32.txt.
Thread 9 has found 57 primes in file file32.txt.
Thread 6 has found 68 primes in file file32.txt.
Thread 7 has found 69 primes in file file32.txt.
Thread 9 has found 67 primes in file file25.txt.
Thread 16 has found 67 primes in file file25.txt.
Thread 17 has found 60 primes in file file25.txt.
Thread 18 has found 60 primes in file file25.txt.
Thread 19 has found 57 primes in file file30.txt.
Thread 10 has found 60 primes in file file30.txt.
Thread 11 has found 60 primes in file file31.txt.
Thread 12 has found 61 primes in file file31.txt.
Thread 18 has found 62 primes in file file31.txt.
Thread 19 has found 63 primes in file file31.txt.
Thread 10 has found 60 primes in file file31.txt.
Thread 11 has found 60 primes in file file31.txt.
Thread 11 has found 60 primes in file file31.txt.
Thread 11 has found 60 primes in file file31.txt.
Thread 11 has found 60 primes in file file31.txt.
Thread 10 has found 48 primes in file file31.txt.
Thread
```