Single CPU FIFO

Average Job time: 14.7

Average Wait time for ready Q: 627

Average RAM used: 6.6%

Average Num of IO operations: 11 operations

Average Total Execution Time: 1370

FIFO Example Execution

Job #1, Wait Time: 503, Num of IO op: 12, Execution Time: 27

Job #2, Wait Time: 546, Num of IO op: 12, Execution Time: 22

Job #3, Wait Time: 559, Num of IO op: 12, Execution Time: 18

Job #4, Wait Time: 570, Num of IO op: 12, Execution Time: 13

Job #5, Wait Time: 571, Num of IO op: 12, Execution Time: 20

Job #6, Wait Time: 583, Num of IO op: 12, Execution Time: 18

Job #7, Wait Time: 591, Num of IO op: 12, Execution Time: 12

Job #8, Wait Time: 597, Num of IO op: 12, Execution Time: 11

Job #9, Wait Time: 600, Num of IO op: 12, Execution Time: 17

Job #10, Wait Time: 607, Num of IO op: 12, Execution Time: 18

Job #11, Wait Time: 618, Num of IO op: 12, Execution Time: 17

Job #12, Wait Time: 627, Num of IO op: 12, Execution Time: 20

Job #13, Wait Time: 635, Num of IO op: 12, Execution Time: 16

Job #14, Wait Time: 644, Num of IO op: 10, Execution Time: 10

Job #15, Wait Time: 641, Num of IO op: 11, Execution Time: 16

Job #16, Wait Time: 649, Num of IO op: 5, Execution Time: 5

Job #17, Wait Time: 644, Num of IO op: 12, Execution Time: 19

Job #18, Wait Time: 655, Num of IO op: 12, Execution Time: 17

Job #19, Wait Time: 664, Num of IO op: 10, Execution Time: 16

Job #20, Wait Time: 670, Num of IO op: 12, Execution Time: 17

Job #21, Wait Time: 681, Num of IO op: 13, Execution Time: 12

Job #22, Wait Time: 684, Num of IO op: 12, Execution Time: 19

Job #23, Wait Time: 692, Num of IO op: 11, Execution Time: 16

Job #24, Wait Time: 700, Num of IO op: 12, Execution Time: 17

Job #25, Wait Time: 707, Num of IO op: 7, Execution Time: 9

Job #26, Wait Time: 710, Num of IO op: 8, Execution Time: 8

Job #27, Wait Time: 710, Num of IO op: 12, Execution Time: 17

Job #28, Wait Time: 718, Num of IO op: 12, Execution Time: 19

Job #29, Wait Time: 726, Num of IO op: 12, Execution Time: 17

Job #30, Wait Time: 736, Num of IO op: 11, Execution Time: 10

Total elapsed time was 1415.

Single CPU Priority

Average Job time: 14.7

Average Wait time for ready Q: 639

Average RAM used: 6.6%

Average Num of IO operations: 11 operations

Average Total Execution Time: 1467

Priority Example Execution

Job #8, Wait Time: 390, Num of IO op: 12, Execution Time: 21

Job #13, Wait Time: 352, Num of IO op: 12, Execution Time: 21

Job #18, Wait Time: 297, Num of IO op: 12, Execution Time: 18

Job #10, Wait Time: 462, Num of IO op: 12, Execution Time: 19

Job #22, Wait Time: 286, Num of IO op: 12, Execution Time: 19

Job #12, Wait Time: 485, Num of IO op: 12, Execution Time: 19

Job #25, Wait Time: 289, Num of IO op: 7, Execution Time: 10

Job #27, Wait Time: 278, Num of IO op: 12, Execution Time: 17

Job #16, Wait Time: 487, Num of IO op: 5, Execution Time: 6

Job #30, Wait Time: 267, Num of IO op: 11, Execution Time: 10

Job #6, Wait Time: 697, Num of IO op: 12, Execution Time: 18

Job #24, Wait Time: 414, Num of IO op: 12, Execution Time: 16

Job #3, Wait Time: 801, Num of IO op: 12, Execution Time: 17

Job #4, Wait Time: 812, Num of IO op: 12, Execution Time: 12

Job #7, Wait Time: 776, Num of IO op: 12, Execution Time: 11

Job #15, Wait Time: 654, Num of IO op: 11, Execution Time: 16

Job #23, Wait Time: 544, Num of IO op: 11, Execution Time: 15

Job #2, Wait Time: 932, Num of IO op: 12, Execution Time: 19

Job #17, Wait Time: 698, Num of IO op: 12, Execution Time: 18

Job #21, Wait Time: 659, Num of IO op: 13, Execution Time: 12

Job #26, Wait Time: 595, Num of IO op: 8, Execution Time: 7

Job #5, Wait Time: 972, Num of IO op: 12, Execution Time: 18

Job #11, Wait Time: 895, Num of IO op: 12, Execution Time: 17

Job #28, Wait Time: 630, Num of IO op: 12, Execution Time: 19

Job #1, Wait Time: 1123, Num of IO op: 12, Execution Time: 17

Job #9, Wait Time: 1010, Num of IO op: 12, Execution Time: 17

Job #14, Wait Time: 946, Num of IO op: 10, Execution Time: 9

Job #20, Wait Time: 859, Num of IO op: 12, Execution Time: 17

Job #19, Wait Time: 903, Num of IO op: 10, Execution Time: 15

Job #29, Wait Time: 757, Num of IO op: 12, Execution Time: 17

Total elapsed time was 1434.

Multi CPU

Average Job time:

Average Wait time for ready Q: 1599

Average RAM used: 26.4%

Average Cache per CPU used: 68%

Average Num of IO operations: unchanged from Single CPU

Average Total Execution Time: 2167

Multi CPU Example Execution

Job #4, Wait Time: 1453, Execution Time: 145

Job #1, Wait Time: 1406, Execution Time: 222

Job #3, Wait Time: 1438, Execution Time: 234

Job #2, Wait Time: 1422, Execution Time: 246

Job #7, Wait Time: 1548, Execution Time: 134

Job #8, Wait Time: 1562, Execution Time: 142

Job #6, Wait Time: 1529, Execution Time: 182

Job #5, Wait Time: 1520, Execution Time: 193

Job #11, Wait Time: 1614, Execution Time: 161

Job #9, Wait Time: 1583, Execution Time: 168

Job #10, Wait Time: 1598, Execution Time: 177

Job #12, Wait Time: 1631, Execution Time: 181

Job #16, Wait Time: 1704, Execution Time: 86

Job #14, Wait Time: 1661, Execution Time: 119

Job #15, Wait Time: 1690, Execution Time: 156

Job #13, Wait Time: 1651, Execution Time: 167

Job #19, Wait Time: 1773, Execution Time: 150

Job #18, Wait Time: 1757, Execution Time: 170

Job #20, Wait Time: 1791, Execution Time: 174

Job #17, Wait Time: 1728, Execution Time: 181

Job #21, Wait Time: 1809, Execution Time: 147

Job #23, Wait Time: 1840, Execution Time: 172

Job #24, Wait Time: 1855, Execution Time: 183

Job #22, Wait Time: 1821, Execution Time: 190

Job #26, Wait Time: 1886, Execution Time: 108

Job #25, Wait Time: 1877, Execution Time: 134

Job #27, Wait Time: 1902, Execution Time: 181

Job #28, Wait Time: 1918, Execution Time: 193

Job #30, Wait Time: 1935, Execution Time: 185

Job #29, Wait Time: 1925, Execution Time: 170

Total elapsed time for execution was 2130.

Notes about Multi CPU

-CPUs #1-4 are available for jobs

-jobs are queued by FIFO Scheduling

-so CPU 1 gets Job #1 and Job#5 and Job #9 and so on.

-CPU 2 gets Job#2 and Job#6 and Job#10 and so on.

-CPUs 1 and 2 get 26.6% of the jobs while CPUs 3 and 4 get 23.3%

-this is due to only 4 jobs(one per CPU) being loaded every Scheduling cycle

and the total number of jobs not being evenly divisible by 4

-the drastic difference between the execution of the Multi CPU simulation and the Single CPU simulation

is due, in large part to the inclusion of cache. Copying from RAM to cache and back from cache to RAM

is an EXTREMELY expensive request. As a result, the wait times are longer due to the back and forth copying