Assignment 3:

Multithread Programming

Duc M. Le

Thompson Rivers University

COMP 3411 – Operating System

Kevin O’Neil

September 25, 2021

Screen capture for 3D matrix multiplication

Script started on Sat 25 Sep 2021 08:03:24 PM PDT

]0;kocomp341130@cs2:~/comp3411/Assignments/A3[?1034h[kocomp341130@cs2 A3]$ java MatrixMultiplication.[K

Testing the multiplication of 3D matrixes

Printing the source matrix

1 6 6

3 8 6

2 1 5

Printing the target matrix

4 4 5

0 0 2

5 4 0

I am the 1'th worker thread

Calculating the element at (0, 0)

Thread 1 is done

I am the 2'th worker thread

Calculating the element at (0, 1)

Thread 2 is done

I am the 3'th worker thread

Calculating the element at (0, 2)

Thread 3 is done

I am the 4'th worker thread

Calculating the element at (1, 0)

Thread 4 is done

I am the 5'th worker thread

Calculating the element at (1, 1)

Thread 5 is done

I am the 6'th worker thread

Calculating the element at (1, 2)

Thread 6 is done

I am the 7'th worker thread

Calculating the element at (2, 0)

Thread 7 is done

I am the 8'th worker thread

Calculating the element at (2, 1)

Thread 8 is done

I am the 9'th worker thread

Calculating the element at (2, 2)

Thread 9 is done

I am the main thread

Printing the result matrix

34 28 17

42 36 31

33 28 12

]0;kocomp341130@cs2:~/comp3411/Assignments/A3[kocomp341130@cs2 A3]$ exit

exit

Script done on Sat 25 Sep 2021 08:03:57 PM PDT

Screen capture for 4D matrix multiplication

Script started on Sat 25 Sep 2021 08:04:32 PM PDT

]0;kocomp341130@cs2:~/comp3411/Assignments/A3[?1034h[kocomp341130@cs2 A3]$ exitjava MatrixMultiplication

Testing the multiplication of 4D matrixes

Printing the source matrix

4 7 1 1

3 2 6 5

3 0 5 3

2 4 9 5

Printing the target matrix

8 9 4 4

8 6 5 9

8 3 7 9

3 6 6 0

I am the 1'th worker thread

Calculating the element at (0, 0)

Thread 1 is done

I am the 2'th worker thread

Calculating the element at (0, 1)

Thread 2 is done

I am the 3'th worker thread

Calculating the element at (0, 2)

Thread 3 is done

I am the 4'th worker thread

Calculating the element at (0, 3)

Thread 4 is done

I am the 5'th worker thread

Calculating the element at (1, 0)

Thread 5 is done

I am the 6'th worker thread

Calculating the element at (1, 1)

Thread 6 is done

I am the 7'th worker thread

Calculating the element at (1, 2)

Thread 7 is done

I am the 8'th worker thread

Calculating the element at (1, 3)

Thread 8 is done

I am the 9'th worker thread

Calculating the element at (2, 0)

Thread 9 is done

I am the 10'th worker thread

Calculating the element at (2, 1)

Thread 10 is done

I am the 11'th worker thread

Calculating the element at (2, 2)

Thread 11 is done

I am the 12'th worker thread

Calculating the element at (2, 3)

Thread 12 is done

I am the 13'th worker thread

Calculating the element at (3, 0)

Thread 13 is done

I am the 14'th worker thread

Calculating the element at (3, 1)

Thread 14 is done

I am the 15'th worker thread

Calculating the element at (3, 2)

Thread 15 is done

I am the 16'th worker thread

Calculating the element at (3, 3)

Thread 16 is done

I am the main thread

Printing the result matrix

99 87 64 88

103 87 94 84

73 60 65 57

135 99 121 125

]0;kocomp341130@cs2:~/comp3411/Assignments/A3[kocomp341130@cs2 A3]$ exit

exit

Script done on Sat 25 Sep 2021 08:04:46 PM PDT