Assignment 3:

Multithread Programming

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COMP 3411 – Operating System

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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

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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

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Script started on Sat 25 Sep 2021 08:04:32 PM PDT
 ]0;kocomp341130@cs2:~/comp3411/Assignments/A3  [?1034h[kocomp341130@cs2
A3]$ exit   java 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
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