**OS ASSIGNMENT-3**

**BY: K.S.ABHIHKESHAV**

**21CSB0F03**

1. **Sieve.c**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Data size | No of Threads | Execution time 1 | Execution time 2 | Execution time 3 | Execution time 4 | Average Execution time |
| Size 1 | 1 | 0.000095 | 0.000115 | 0.000115 | 0.000179 | 0.000126 |
| 2 | 0.000479 | 0.001231 | 0.000783 | 0.000456 | 0.000737 |
| 4 | 0.000417 | 0.000437 | 0.000510 | 0.000505 | 0.000467 |
| 8 | 0.000639 | 0.001934 | 0.000748 | 0.000583 | 0.000976 |
| Size 2 | 1 | 0.000110 | 0.000256 | 0.000299 | 0.000111 | 0.000194 |
| 2 | 0.000636 | 0.000527 | 0.000460 | 0.000508 | 0.000533 |
| 4 | 0.000837 | 0.000638 | 0.000550 | 0.000511 | 0.000634 |
| 8 | 0.000793 | 0.000452 | 0.001083 | 0.001619 | 0.000987 |
| Size 3 | 1 | 0.000011 | 0.000020 | 0.000011 | 0.000015 | 0.000014 |
| 2 | 0.000885 | 0.000590 | 0.000538 | 0.000852 | 0.000716 |
| 4 | 0.000667 | 0.001686 | 0.000669 | 0.000515 | 0.000884 |
| 8 | 0.000894 | 0.001000 | 0.000876 | 0.000912 | 0.00092 |
| Size 4 | 1 | 0.000023 | 0.000017 | 0.000011 | 0.000011 | 0.000015 |
| 2 | 0.000972 | 0.000682 | 0.001042 | 0.000939 | 0.000909 |
| 4 | 0.000705 | 0.001088 | 0.001081 | 0.000911 | 0.000946 |
| 8 | 0.000918 | 0.001075 | 0.000961 | 0.000866 | 0.000955 |

1. **Reduct.c**

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| --- | --- | --- | --- | --- | --- | --- |
| Data size | No of Threads | Execution time 1 | Execution time 2 | Execution time 3 | Execution time 4 | Average Execution time |
| Size 1 | 1 | 0.000012 | 0.000013 | 0.000017 | 0.000019 | 0.000015 |
| 2 | 0.000500 | 0.000548 | 0.000571 | 0.000566 | 0.000546 |
| 4 | 0.000640 | 0.000613 | 0.000519 | 0.000715 | 0.000622 |
| 8 | 0.001089 | 0.001643 | 0.000607 | 0.001068 | 0.001102 |
| Size 2 | 1 | 0.000013 | 0.000015 | 0.000012 | 0.000021 | 0.000015 |
| 2 | 0.000620 | 0.000525 | 0.000705 | 0.000534 | 0.000596 |
| 4 | 0.000587 | 0.000743 | 0.000714 | 0.000632 | 0.000669 |
| 8 | 0.000802 | 0.000921 | 0.002546 | 0.001386 | 0.001414 |
| Size 3 | 1 | 0.000015 | 0.000013 | 0.000013 | 0.000013 | 0.000014 |
| 2 | 0.000694 | 0.000569 | 0.000555 | 0.000546 | 0.000591 |
| 4 | 0.000705 | 0.000651 | 0.000628 | 0.000815 | 0.0007 |
| 8 | 0.000967 | 0.001387 | 0.000865 | 0.000890 | 0.001027 |
| Size 4 | 1 | 0.000012 | 0.000014 | 0.000015 | 0.000019 | 0.000015 |
| 2 | 0.000509 | 0.000825 | 0.000564 | 0.000635 | 0.000633 |
| 4 | 0.000417 | 0.000788 | 0.000622 | 0.000737 | 0.000641 |
| 8 | 0.000824 | 0.001855 | 0.001792 | 0.001087 | 0.001389 |

1. **Quicksort.c**

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| --- | --- | --- | --- | --- | --- | --- |
| Data size | No of Threads | Execution time 1 | Execution time 2 | Execution time 3 | Execution time 4 | Average Execution time |
| Size 10 | 1 | 0.000103 | 0.000177 | 0.000108 | 0.000133 | 0.00013 |
| 2 | 0.000777 | 0.001054 | 0.000871 | 0.000808 | 0.000877 |
| 4 | 0.000880 | 0.000780 | 0.000910 | 0.000762 | 0.000833 |
| 8 | 0.001023 | 0.001403 | 0.001065 | 0.000776 | 0.001067 |
| Size 20 | 1 | 0.000103 | 0.000114 | 0.000104 | 0.000104 | 0.000106 |
| 2 | 0.000821 | 0.000690 | 0.000758 | 0.000775 | 0.000761 |
| 4 | 0.000493 | 0.000634 | 0.000703 | 0.000532 | 0.00059 |
| 8 | 0.000829 | 0.001333 | 0.000849 | 0.001222 | 0.001058 |
| Size 30 | 1 | 0.000104 | 0.000119 | 0.000106 | 0.000108 | 0.000109 |
| 2 | 0.000740 | 0.000778 | 0.000835 | 0.001137 | 0.000872 |
| 4 | 0.000631 | 0.000552 | 0.000247 | 0.000686 | 0.000529 |
| 8 | 0.001206 | 0.000745 | 0.000742 | 0.001042 | 0.000934 |
| Size 40 | 1 | 0.000094 | 0.000233 | 0.000136 | 0.000102 | 0.000141 |
| 2 | 0.000700 | 0.000689 | 0.000607 | 0.000886 | 0.00072 |
| 4 | 0.000620 | 0.000674 | 0.000816 | 0.000678 | 0.000697 |
| 8 | 0.000772 | 0.001880 | 0.001254 | 0.000905 | 0.001203 |

1. **Matmult.c**

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| --- | --- | --- | --- | --- | --- | --- |
| Data size | No of Threads | Execution time 1 | Execution time 2 | Execution time 3 | Execution time 4 | Average Execution time |
| Constant size | 1 | 0.686978 | 0.770205 | 0.715972 | 0.739018 | 0.728043 |
| 2 | 0.724905 | 0.712800 | 0.706123 | 0.700028 | 0.710964 |
| 4 | 0.689084 | 0.689060 | 0.664876 | 0.720387 | 0.690852 |
| 8 | 0.713203 | 0.672217 | 0.715454 | 0.706673 | 0.701887 |