Parallel & Distributed Computing
CSE525

Assignment **#2** - to be submitted to **Dr. Masroor Hussain**

Comparisons of Processors

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Processors' Comparison

Select any five processors of different companies and compare the performances and parameters, such as cache memory, pipeline, etc.

Sr #	Name	No. of Cores	No. of Threads	Normal Clock Frequency (MHz)	Overclocked Frequency (MHz)	No. of Pipeline Stages	Cache Size (MB)
1	Intel Core i9 10900K[1] (Comet - Lake)	10	20	3700	4800	14 (16 with fetch/retire)[6]	20
2	Intel Core i7 10700K[2] (Comet - Lake)	8	16	3800	4700	14 (16 with fetch/retire)[6]	16
3	Intel Core i3 105G1[3] (Sunny Cove – Ice Lake)	2	4	1100	3200	14-20[6]	4
4	Intel Xeon Platinum 8380HL[4] (Cooper - Lake)	28	56	2900	4300	14 (16 with fetch/retire)[6]	39
5	AMD Ryzen 7 Pro 3700[5] (Zen-2 microarchitecture)	8	16	3600	4400	N/A	32

[1] https://ark.intel.com/content/www/us/en/ark/products/199332/intel-core-i9-10900k-processor-20m-cache-up-to-5-30-ghz.html

[2] https://ark.intel.com/content/www/us/en/ark/products/199335/intel-core-i7-10700k-processor-16m-cache-up-to-5-00-ghz.html

[3] https://ark.intel.com/content/www/us/en/ark/products/196588/intel-core-i3-1005g1-processor-4m-cache-up-to-3-40-ghz.html

[4] https://ark.intel.com/content/www/us/en/ark/products/205684/intel-xeon-platinum-8380hl-processor-38-5m-cache-2-90-ghz.html

[5] https://www.amd.com/en/products/cpu/amd-ryzen-7-pro-3700

[6] https://en.wikipedia.org/wiki/List_of_Intel_CPU_microarchitectures

Old List:

Sr #	Name	Number of Cores	Number of Threads	Normal Clock Frequency (MHz)	Overclocked Frequency (MHz)	Number of Pipeline Stages	Cache Size
1	INTEL CORE I9 10900K	10	20	3700	5300 (single core) 4900 (all cores)	14 (16 with fetch/retire)	L3: 20MB
2	Intel Core i7 9700K	8	8	3600	4900	14 (16 with fetch/retire)	L3: 12MB
3	AMD Ryzen 9 3900X	12	24	3600	4900	No info. avail.	L3: 64MB (total)
4	AMD Ryzen 7 3700X	8	16	3600	4400	No info. avail.	L3:32MB (total)
5	Intel Core i5 9400F	6	6	2900	4100		L3: 9MB