

## Assingment 3: Is it on cache?

Group #: 4

Grade: 100

Item	Description	Percentage	Grade	Comments
Delivery of log files	Provides the following files: part_1.txt, part_2_column.txt and part_2_row.txt	15	15	
First reference misses	Provides the correct analysis for the questions a) and b)	20	20	Good! One interesting thing, besides the application does nothing and its source code is almost empty it causes lot of cache references, this is because it also causes the system to load all the linked code.
Optimizing memory accesses on loops	Provides the correct analysis for the questions a), b), c), d) and e)	50	50	Great analysis! Actually you found the trick :) The statistics reported by perf are only related to the LLC, this means that it ignores whether most of the accesses had a hit on layers closer to the CPU such as Level 1 or Level 2. Based on this the cache-misses rate may be confusing: when using row-major approach likely we get more hits on the other levels so the cache accesses to the LLC are lower, but not all the data we need is on the cache so the amount of data we need to copy to the cache is mostly the same for both examples. This condition provides a fake result for the row-major giving the impression it has a higher miss rate.
Documentation	Provides the report on PDF format in addition to the LaTeX source files	15	15	
Total	-	100	100	-