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CS341

HW 3 Write up

	C++	Haskell	Haskell	Haskell	Haskell
	Compiled	Natural	Natural	Accumulator	Accumulator
		Compiled	Interpreted	Compiled	Interpreted
Time 1	0.002s	0.003s	0.01s	0.002s	0.01s
Time 2	0.002s	0.002s	0.01s	0.002s	0.01s
Time 3	0.002s	0.002s	0.01s	0.002s	0.01s
Avg	0.002s	0.0233s	0.01s	0.002s	0.01s

The timings I, personally, have found to be completely consistent across all the programs written.

As expected, the interpreted GHCI programs ran about 20 times slower on average since the computer must have the code interpreted before it can be executed during the runtime of the program.

Even further, I saw that there was no difference at all between the accumulated and the natural Haskell programs. This could be for several reasons. To name a few, I completed all these timings using a virtual machine, which could have affected the recorded times. The commands to time these programs could not allow enough precision to accurately show a noticeable and reasonable timing. Also, the amount of background processes I had could have interfered with the execution of all the programs.

The final observation I can make from these timings, is that Haskell seems to be very similar in performance to C++. Based on the timings, C++ is slightly faster but could well be within margin of error.

Conclusively, perhaps if I had been using slower hardware, the differences between C++,

Haskell, and the Accumulated vs Natural program executions would have shown more expected timings.