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Comments

Q1
In general Caches were more familiar than virtualization and storage. In particular, the general scope of system virtualization was not particularly understood.
The questions on caches were particularly good reflecting the good general understanding of the topic. And this reflected in higher marks for question 1.

Q2
On the other side, the question on virtualization created, in general, more than one problem to students.
Question 2d on the goals of system virtualization was not answered correctly by most of the students, and this resulted in partial marks in the majority of the cases.

Apparently Q3 and Q4 were more challenging for students than I expected, hence performance for these questions could have been better.

Specifics about Q3: most students seem to understand dependencies and the concept of pipelining. Some common errors were not considering a superscalar architecture in part b, not managing results (delay writing and/or rename registers) in part c and forgetting about conditional branches in part d. Some common minor issues were considering structural hazards a problem in in-order pipelines, and using the term ‘branch detection’ rather than ‘branch prediction’.

With regards to Q4, a significant number of students failed parts a and b, which I expected to be flawless in most of the cases; this means that the concepts of multicore, multithreading and superscalar are not understood well. The coherency protocol is generally well understood but the underlying bus transitions are generally incorrect. Finally part d is generally good, but a number of students didn’t seem to have understood the question and were answering random stuff.