ECE406 Project 2 Report

Joseph Scarboro

Part 1.

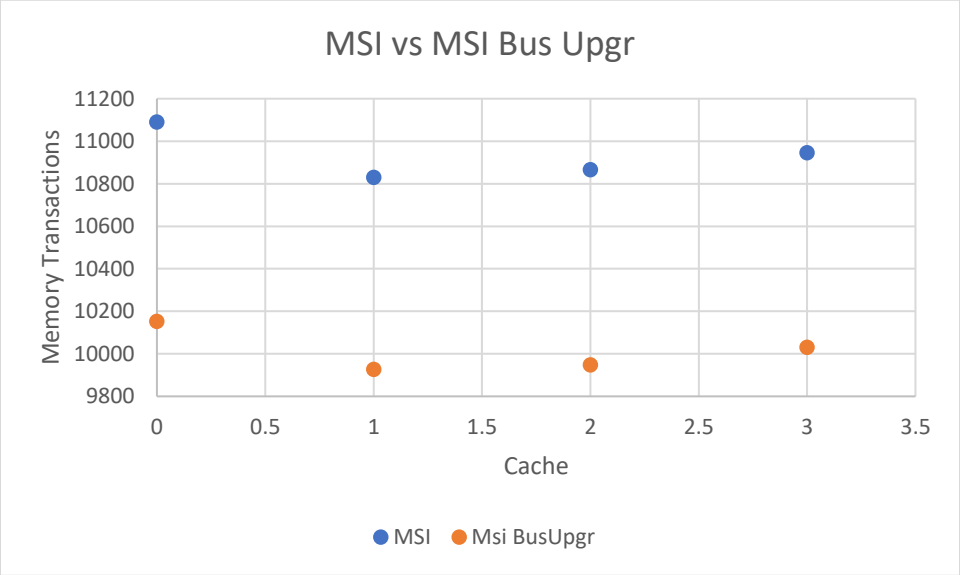
Implemented in Gradescope

Part 2.

a)

Implemented in Gradescope

b)



When BusUpgr is called, we can avoid a memory transactions. This lowers the amount of total memory transactions for Msi BusUpgr

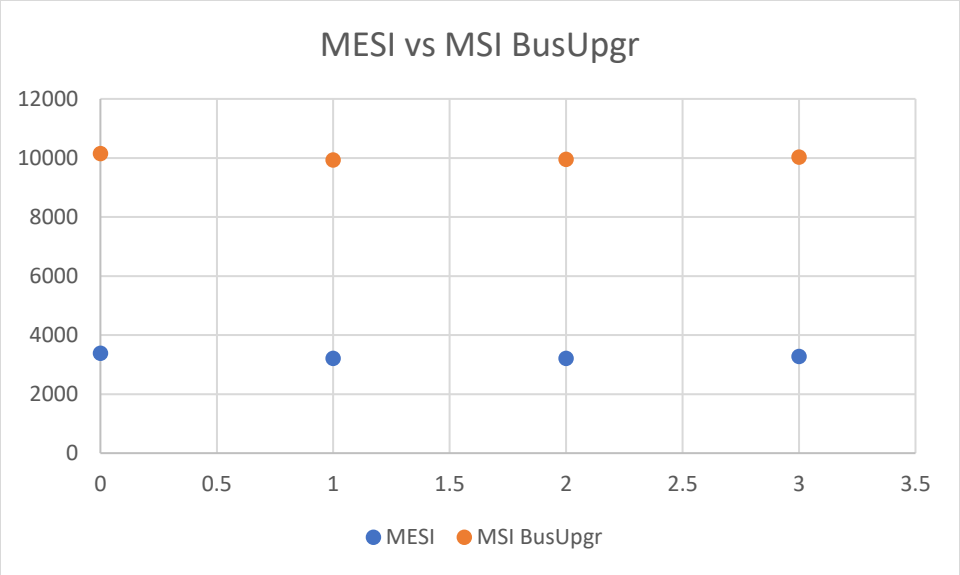
Implemented in Gradescope

Part 3.

a)

Implemented in Gradescope

b)



MESI drastically decreases total memory transactions. By the inclusion of the exclusive state and cache-to-cache transfers, trips to memory being done in MSI are no longer being done, decreasing the number.

Part 4.

a)

Implemented in Gradescope

b)

Implemented in Gradescope

c)

Could not get accurate results in time, impossible to compute based on what grade scope is showing me

The order of filtered snoops should be in number of filtered lookups:

16 fully associative > 4 set 4 way > 16 entry direct map

The order of useful snoops should be in number of filtered lookups:

16 fully associative > 4 set 4 way > 16 entry direct map

The order of wasted snoops should be in number of filtered lookups:

16 fully associative > 4 set 4 way > 16 entry direct map