

We were asked to design a cache simulator containing the different kinds of cache associativity.

SIMULATION

- Implementation:
 - Since I did not have a lot of time and my focus on Assignment 4, I have only implemented the direct-mapped cache simulation. Elements implemented:
 - Direct-mapped cache.
 - FIFO replacement algorithm.
 - Write-back and write-through options.
- Write-back vs. Write-through:
 - Write through cache is where inputs and outputs are pointed to the cache directly and the user gets the data immediately to insure the data to be updated.
 - Write back cache is where all operations in the memory are applied before pointing back to the user at the end as a whole.
- Different types of misses depend on whether the location checked is dirty or not (modified before).