

Lab 10: Cache



By: CS 382 CAs

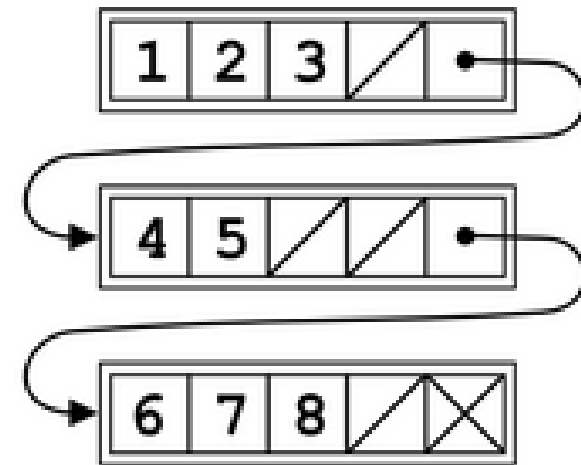
Unrolled Linked List

Unrolled Linked List

- Compromise between array and linked list
- Minimizes cache misses when looking up elements
- Behaves just like a linked list, but with more values stored in each node
- Each node holds an array to take advantage of locality

Nodes

- Contain a fixed-size array of elements which hold values
- Iterates over the internal array before moving to next node



Your Assignment

Your assignment

- Profile the implementations of the linked list and the array, put their times in a graph or chart
- Write about why the results are the way they are using cache/locality as your perspective
- Repeat for the unrolled linked list, graph your findings again
- Once again write about your results from the perspective of cache/locality
- Starter code for C and C++, you get to choose!