README.pdf
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CSE241 lab 4

Implementation:
Events are contained within EventNodes, which have an array of next pointers to another EventNode. Each EventNode has a unique corresponding key (the year of events contained within it), and I supported multiple events with the same key by chaining them within a LinkedList.

Dynamically resizing heads and tails:
Whenever an event with a new unique was to be added, I checked whether the height of the allocated pillar was greater than the current maximum height. If so, I checked whether this would exceed the height of the head pillar (equivalent to the height of the tail pillar). If so, I doubled the height of the head and tail pillars until they were greater than the maximum height needed. Then I copied all the pointers from the old head to the new, taller one, and filled the empty spots with pointers to the tail.

Singly-linked skip list:
In my initial version of code, I did not rely on previous pointers to find events within a range of years, and so there was no difficult regarding that. I simply found the EventNode most recent to the start year, then checked if it was equal to the start year, and if so started there. Otherwise, I started at the next node. I then dropped down to the lowest level and walked along the list until I reached a node with key <= to the last year of the range.
However, I encountered difficulty removing a node without the help of previous pointers. I achieved this by making sure that at every level I got to the closest node as possible before the node to be deleted, then deleted the node.