

Quickcheck 04: Solutions

Name:

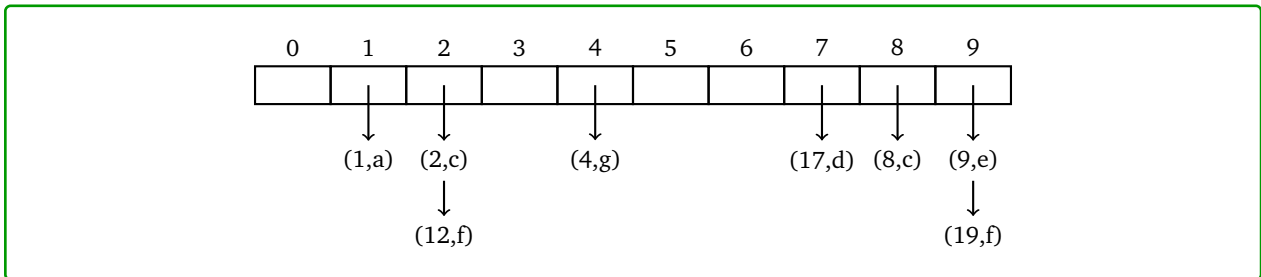
Consider the following key-value pairs:

$(1, a), (4, b), (2, c), (17, d), (12, e), (9, e), (19, f), (4, g), (8, c), (12, f)$

- (a) Suppose we have a hash table implemented using separate chaining. This hash table has an internal capacity of 10. Its buckets are implemented using a linked list where new elements are appended to the end. Do not worry about resizing.

Show what this hash table internally looks like after inserting the above key-value pairs in the order given using the hash function $h(x) = x$.

Solution:



- (b) Now, suppose we have a hash table implemented using linear probing, also with an internal capacity of 10. Show that the internal state of this hash table looks like after inserting the same elements. Again, do not worry about rehashing.

Solution:

