Hash maps

CS 261 Lab #9

Oregon State University OSU

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And they're **associative arrays**, letting us work with **key/value** pairs

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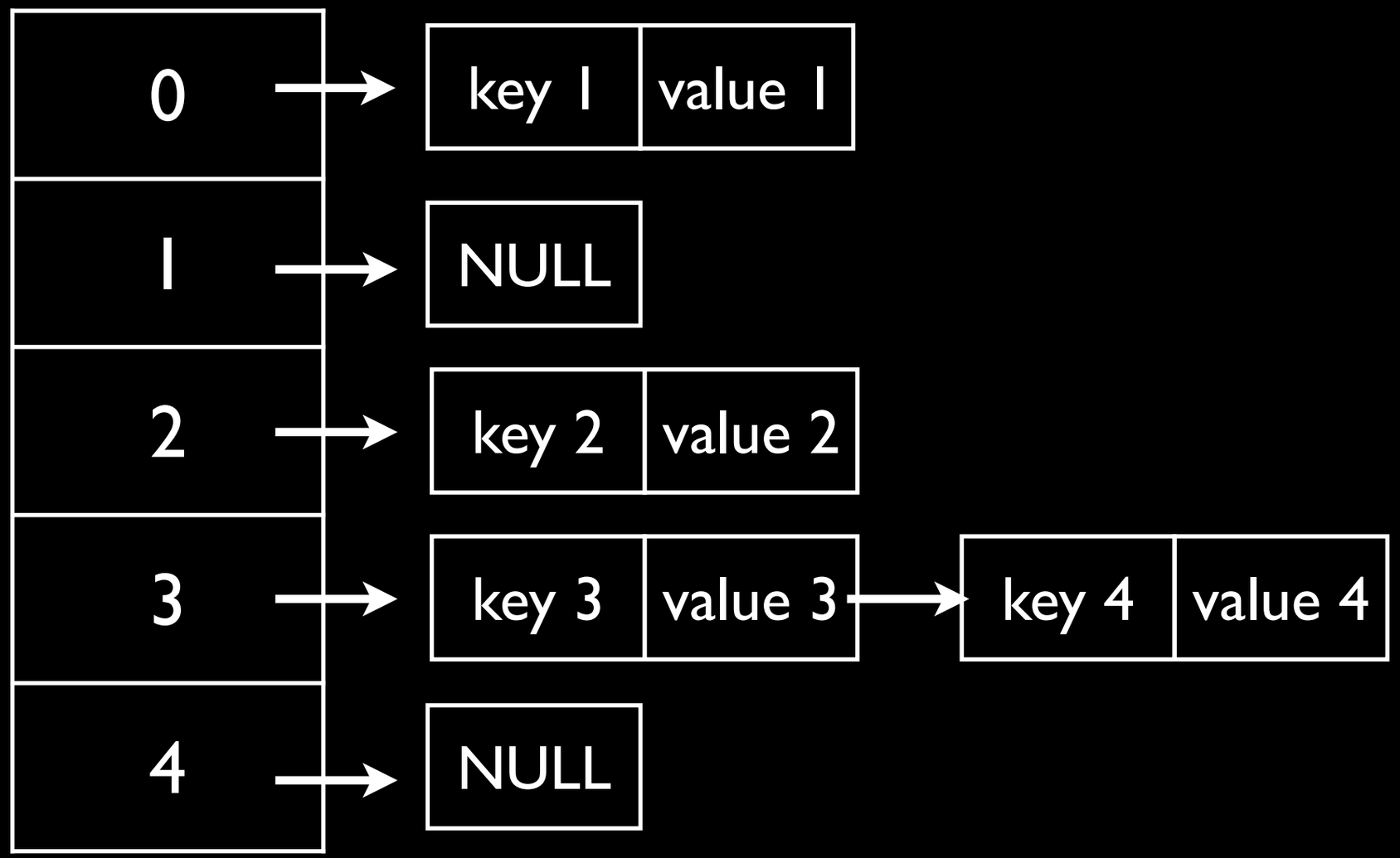

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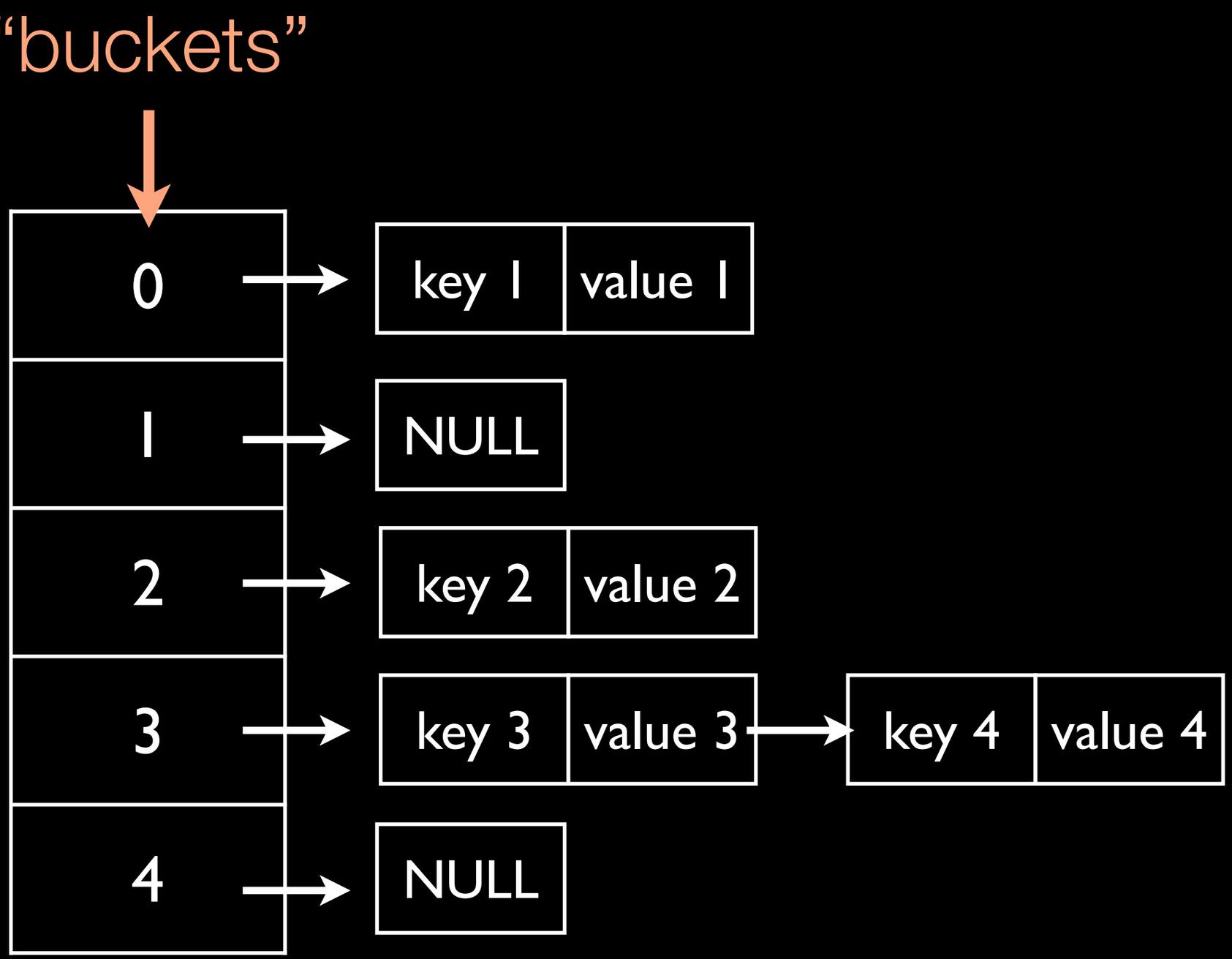

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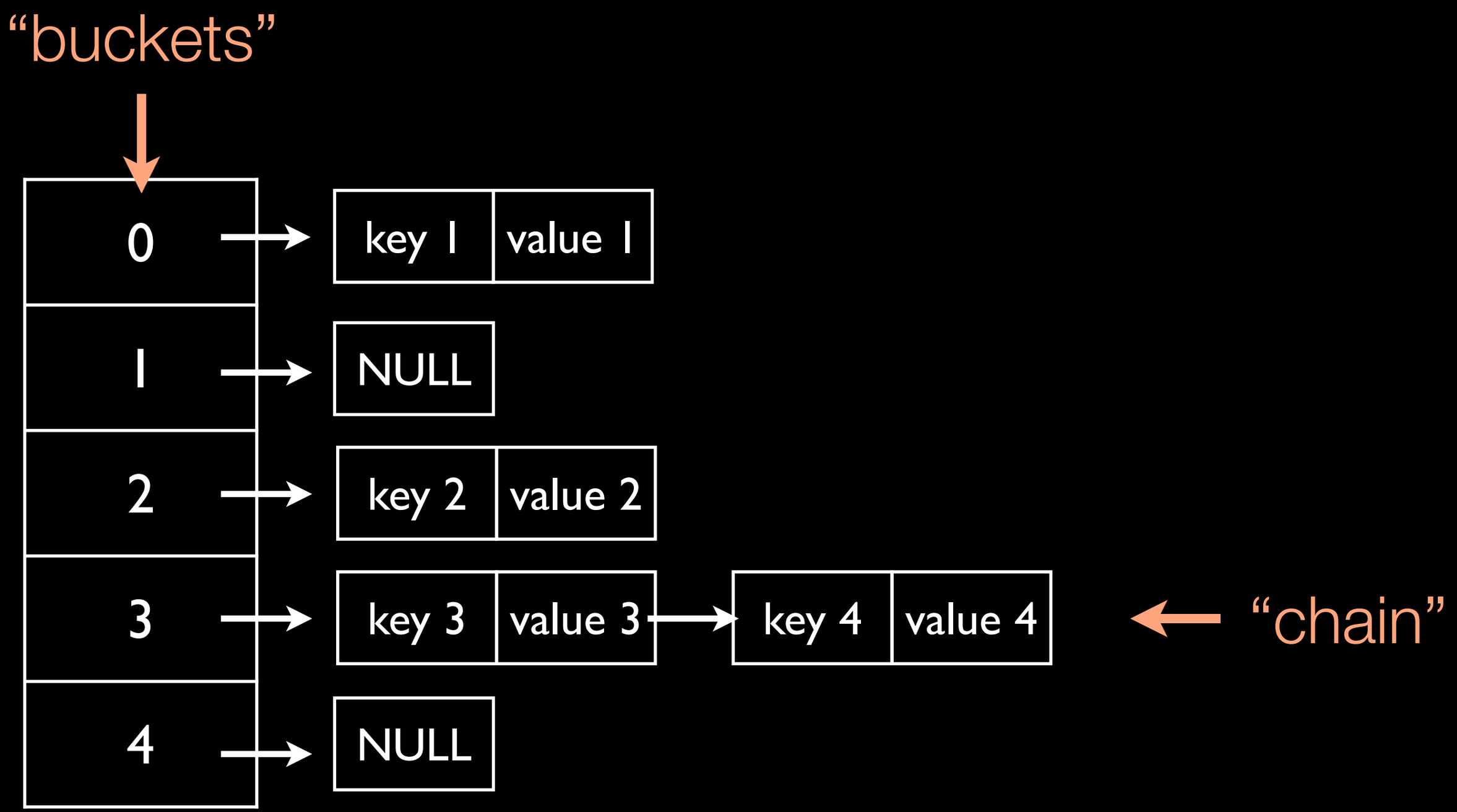

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3) If the bucket doesn't have any items in it, **make the bucket point to our item**. If it does have other items, **add our item to the chain**.

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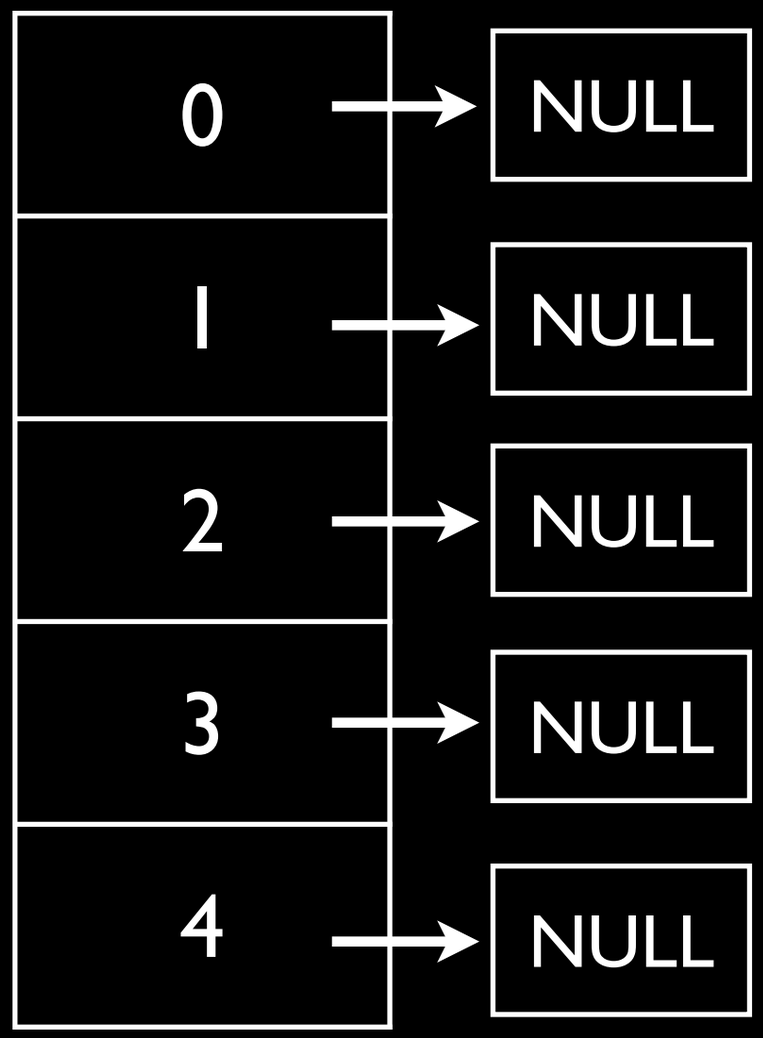
3) Examine each key/value pair in the bucket until you **find the matching key**, then return the key's value.

Example: adding the key “hello” with a value of “world”



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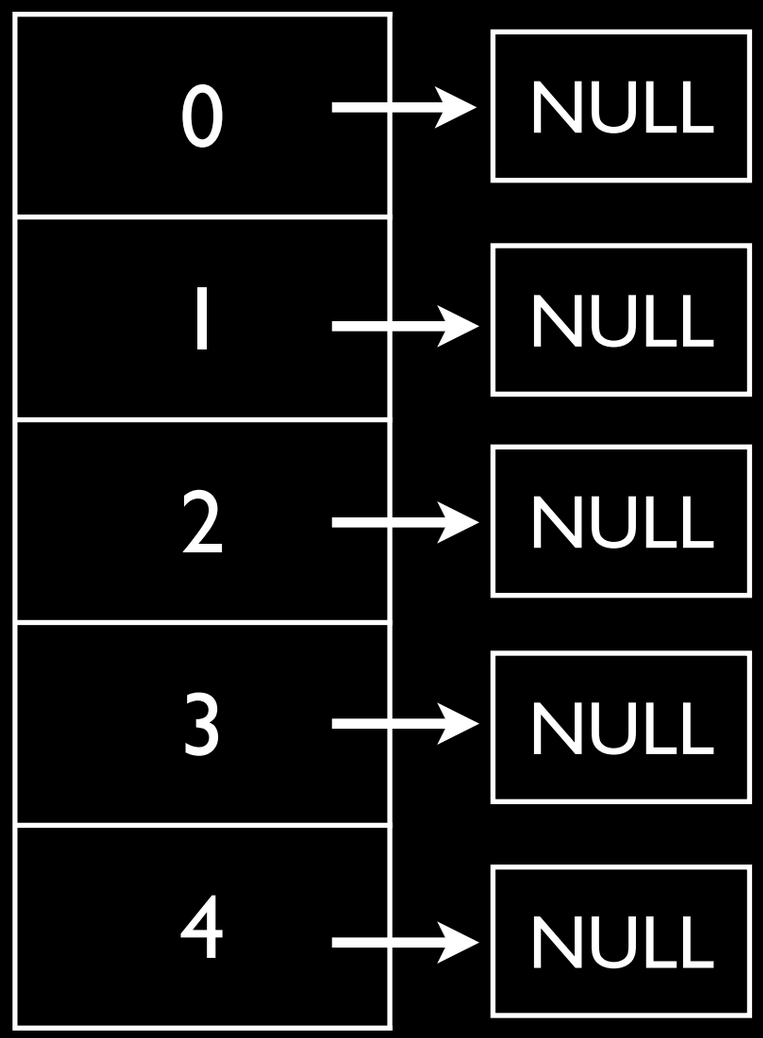

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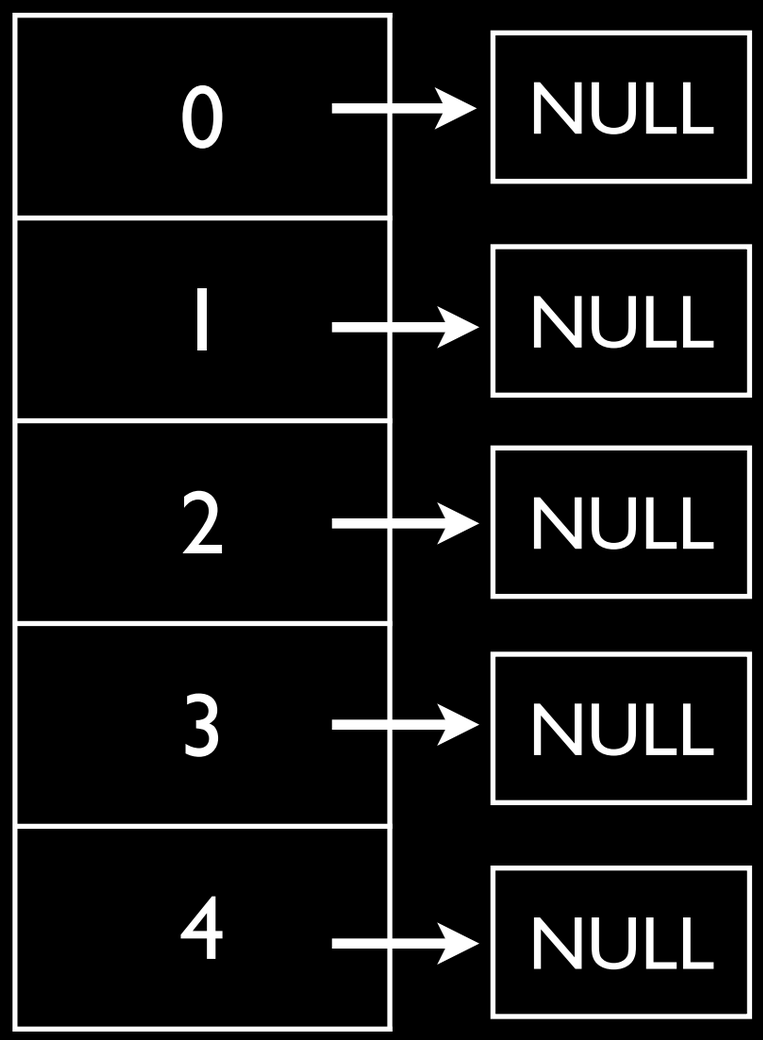

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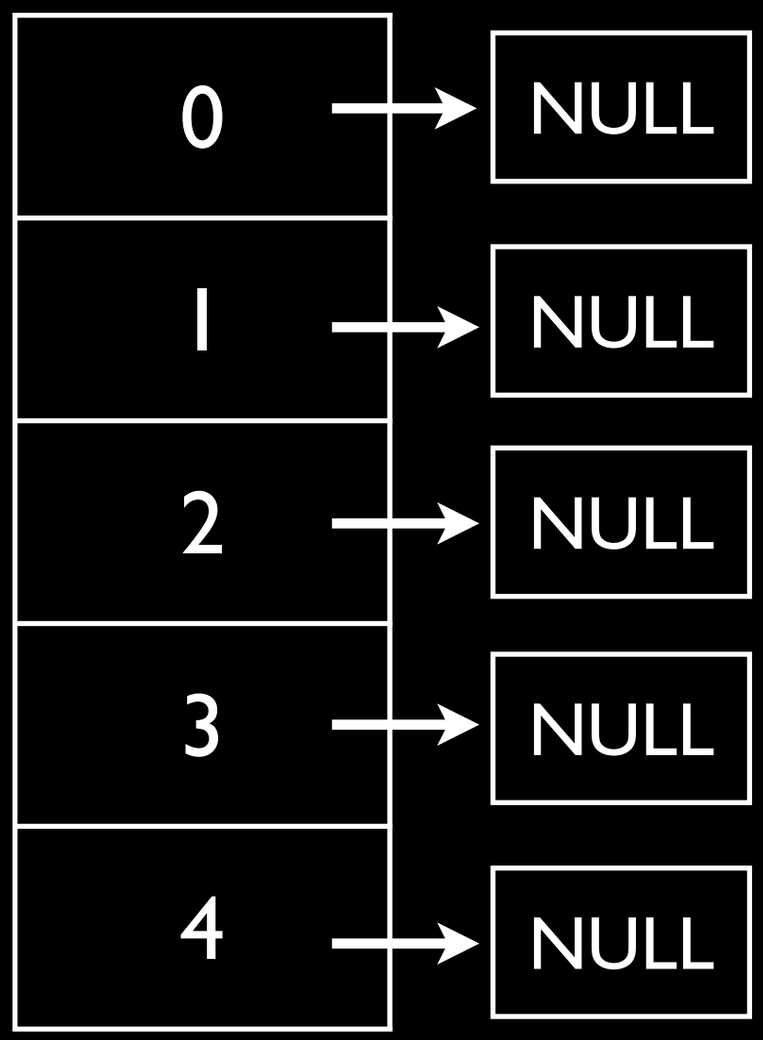

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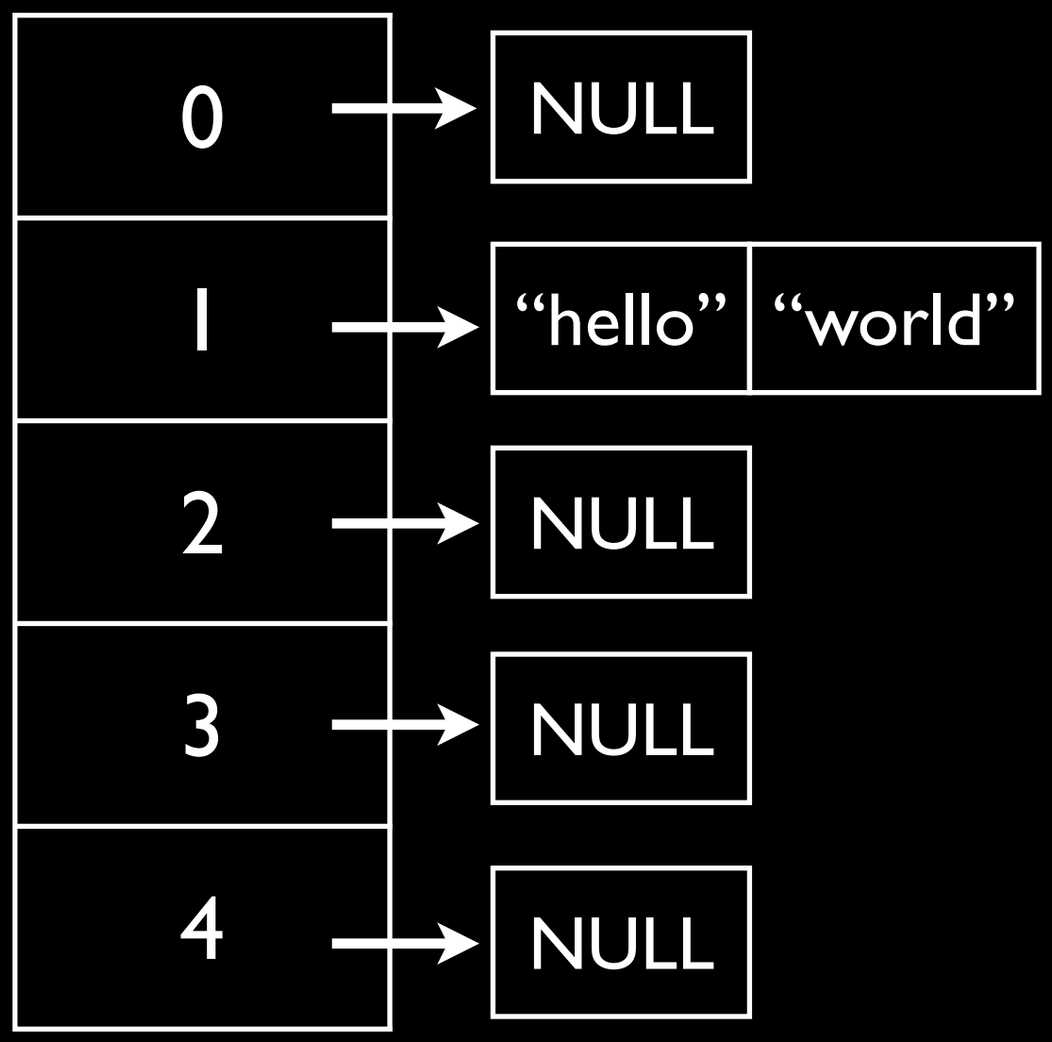

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This is a **very simplified** version of the hash map you'll need to implement in Assignment #6

(but with a better hashing function!)

Your program will need to read the *dictionary.txt* file

If you use the **Makefile** to compile this lab (via Xcode, Eclipse, or manually), place *dictionary.txt* in the same directory as the Makefile

Visual Studio users will need to place *dictionary.txt* in Visual Studio's build directory (usually *yourProjectDirectory***Debug**)

Download the files from
http://classes.engr.oregonstate.edu/eecs/spring2015/cs261-001/lab9.php

Implement the **insertMap**, **containsKey**, and **tableLoad** functions in *hashmap.c*

In *main.c*, **use the hash map** to check whether words the user enters are spelled correctly

Experiment with different values of **size** in *main.c* to see how it **impacts the hash map's speed and table load**