Hash map: A key-value store that uses an array and a hashing function to save and retrieve values.

Key: The identifier given to a value for later retrieval.

Hash function: A function that takes some input and returns a number.

Compression function: A function that transforms its inputs into some smaller range of possible outputs.

Recipe for saving to a hash table:

- Take the key and plug it into the hash function, getting the hash code.

- Modulo that hash code by the length of the underlying array, getting an array index.

- Check if the array at that index is empty, if so, save the value (and the key) there.

- If the array is full at that index continue to the next possible position depending on your collision strategy.

Recipe for retrieving from a hash table:

- Take the key and plug it into the hash function, getting the hash code.

- Modulo that hash code by the length of the underlying array, getting an array index.

- Check if the array at that index has contents, if so, check the key saved there.

- If the key matches the one you're looking for, return the value.

- If the keys don't match, continue to the next position depending on your collision strategy.