CTCI solutions

# Chapter 1

## Write an algorithm to determine if a string has all unique characters without using additional data structures

The string is made up of a stream of characters. If the characters of the string are encoded in ASCII, we need 256 bits to store the occurrence of each character. That’s 8 bytes. If the characters of the string are encoded in UNICODE, we have a total of 2 ^ 16 possible characters and to determine if a character was seen, we would need 2 ^ 16 bits. With 16 bit unsinged integers, we could accomplish this with 2 ^ 12 or 4096 integers.

Run a pass through the string and perform bitwise AND to figure out if the character boolean was set.

## Given two strings, write a method to decide if one is a permutation of the other