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# CMSC 115 Reading Guide

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## Chapter 4

## Section 4.1 The String Type Read

### Section 4.1.1 Re-read

1. What is a triple-quote string? The triple-quote string keeps all the formatting information that is inside of the triple-quotes.

### Section 4.1.2 Re-Read

1. What does “\n” do? “\n” allows the string following it to be put onto a new line

### Section 4.1.3 Read

1. What is UTF-8? UTF-8 is a representation of each character and special characters that are represented by an integer in Python.
2. What is the UTF-8 encoding for ‘A’? (See appendix F.) 65

### Section 4.1.4 Read

1. How can you access individual characters within a String? You can access individual characters within a string by indexing the string.

### Section 4.1.5 Re-read

1. What is a slice? A slice allows you to select more than just one character of the string, or the subsequences of the string.
2. Suppose a string variable alphabet contains “abcdefghij”. How would you access the substring “cdef”? You would use alphabet[2:6]

### Section 4.1.6 Read

1. What does iterability mean? Iterability means that the individual elements can be “iterated through” using a for loop or other methods.

## Section 4.2 String Operations Read

### 4.2.1 Read

1. What is concatenation? Concatenation adds the ability to add two strings together.
2. What does it mean that the concatenation operator (+) creates a new string and doesn’t alter the existing strings? The ability to create a new string means that it makes a copy of the strings and doesn’t alter the originals.

### 4.2.2 Skim

### 4.2.3 Read

1. What does the > operator mean for strings? The > operator evaluates the strings UTF-8 value and checks if one is greater than the other.

### 4.2.4 Read

1. What does the in operator do? The in operator checks if an object is a member of a collection.

### 4.2.5 Re-read

1. What does it mean that strings are *immutable*? Why would the Python designers choose this? When a string is immutable it means that it cannot be modified. The python designers chose this as it allows the interpreter to calculate faster, and it guarantees the original string is not modified.