

CS 150 Fall 2022 – Quiz 2 “Cheat Sheet”

Numeric Operators

+, **-**, **/**, *****: Addition, subtraction, division, multiplication

//: Floor division: Round division result down to nearest whole number

%: Modulus: Evaluate to remainder of division

- Range

range(stop): Equivalent to `range(0, stop, 1)`

range(start, stop[, step]): Create sequence of integers from inclusive **start** to exclusive **stop** by **step**

- Slicing

seq[start[:stop[:step]]]: Slice sequence **seq** from inclusive **start** to exclusive **stop** by **step**

Strings

- The following functions are built-in

len(string): Returns the number of characters in the string

int(string), **float(string)**: Converts numeric string to int or float

str(object): Converts object, e.g. int or float to a string

sorted(string): Returns the characters of the string as a list in sorted order

- String object methods

upper(), **lower()**, **capitalize()**: Returns a new upper or lower-cased, or 1st letter upper-cased string

find(some_string): Returns the first index that **some_string** occurs at in the string or -1 if not found

find(some_string, index): Same as above, but starts searching at index

replace(old, new): Return a copy of the string with all occurrences of old substituted with new

startswith(prefix): Returns **True** if the string starts with prefix, **False** otherwise

endswith(suffix): Returns **True** if the string ends with suffix, **False** otherwise

strip(): Returns a copy of the string with only the leading and trailing whitespace removed

split(): Return a list of the words in the string using whitespace as the delimiter

- String operators

string1 + string2: Returns a new string that is the concatenation of string1 and string2

string * int: Returns a new string that is string repeated int times

substr in string: Returns **True** if substr is a substring of string, **False** otherwise

Modules

- **random** module

randint(a, b): Return a random integer N such that $a \leq N \leq b$

uniform(a, b): Return a random floating point number N such that $a \leq N \leq b$

- **math** module

sqrt(num): Return the square root of num