CS 150 Spring 2020 – Quiz 3 "Cheat Sheet"

Strings

- Slicing
  `string[start:end:stride]:` Returns string starting at index **start**, up to but not including the character at index **end**, and jumping by **stride**. **start** defaults to 0, **end** defaults to length of string, **stride** defaults to 1.

- 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 (invoked with the `object.method` syntax)
  `upper(), lower(), capitalize():` Returns a new upper or lower-cased, or 1st letter upper-cased string
  `find(substring):` Returns the first index that **substring** occurs at in the string or -1 if not found
  `find(subtring, index):` Same as above, but starts searching at index
  `replace(old, new):` Returns 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

for-loops on strings

To loop over each character in string s:

```
for <element> in <string>:
    <statements>
```

For example, if the variable **word** contains 'abc':

```
for letter in word:
    print(letter)
```

produces output
```
a
b
c
```