STRING METHODS

COMP130 – INTRODUCTION TO COMPUTING

DICKINSON COLLEGE

PYTHON STRINGS ARE OBJECTS

- Recall:
  - An **object** represents *a thing* in a program that has **state** and **methods**.
    - An **object's state** is the collection of internal variables and values that represent the object.
    - An **object's methods** are functions that operate on the state of the object.
      - A **constructor** is a special method that *creates a new object* and *initializes its state*.
      - **Instance Methods** (usually just called **methods**) are functions that *operate on a specified object* (i.e. use or manipulate its state.)

PYTHON'S STRING OBJECT

- The `String` Object:
  - **State**: The characters in the string are the state.
  - **Operations**:
    - Constructor: `s = str('Hello World!')`   Typically not used.
                      `s = 'Hello World!'`   Equivalent shortcut!

    - (some) Methods:
      - Searching: `find(s),endswith(s),startswith(s),replace(s1,s2)`
      - Contents: `isalnum(),isalpha(),isdecimal()`
      - Conversion: `lower(),upper(),strip(),lstrip(),rstrip()`
      - See links on course page for all methods and full documentation.

THE `IN` OPERATOR

- The `in` operator searches for one string within another.
  - `str1 in str2`
    - True if `str1` appears in `str2`, False otherwise.

```
print('x' in 'xylophone')      True
print('p' in 'xylophone')      True
print('z' in 'xylophone')      False

print('phone' in 'xylophone')  True
```