



Session 4



alphacloudone.com



Object Oriented Programming

- Programming concept where objects can contain data and code
- Most of the more commonly used programming languages out there are Object Oriented
 - Includes C++, JavaScript, Java, C# (.Net), and Python
- In Python, Methods are the functions that are built into objects





Object Oriented Programming

- We've already been using methods
 - `.pop()`, `.sort()`
- No shortage of Methods available to use in Python
 - Libraries add even more





Object Oriented Programming

How do we get more information on *Methods* and *Functions*

- In Jupyter, hit tab after the object to see available methods

Hit shift-tab to get detailed information

- Run the help function

`help(function)`

- Go to [Docs.python.org](https://docs.python.org)

- Google it





Functions

You can create your own functions in Python

- Why?
 - Create repeatable blocks of code
 - Make a change once, instead of in multiple places
 - Foundational leap in your programming skills





Bootcamp

Creating a Function

def indicates
you're
defining a
new function

Snake case
name for your
function

Empty parenthesis or
name of input
variable enclosed in
parenthesis, followed
by colon

```
def function_name(input):
```

```
    """ this function does this """
```

```
    some code
```

```
    some more code
```

```
    return(output)
```

Doc string enclosed
in triple quotes
explains what the
function does as well
as the
required/optional
inputs and outputs

The code
your function
will run,
indented

Optional return statement.
When running the function,
the output is the variable
shown here