

Python Review

Boolean expressions

```
print(2 > 1)

print(5 % 2 == 0)

print(not 5 % 2 == 0)

print(2 > 1 or 2 < 1)

print(True or False)

print(5 % 2 == 0 or 5 % 3 == 0)

print(2 > 1 and 2 < 1)

print(True and False)

print(False and False)
```

Functions vs. Methods

```
message = "Hello World!"  
print(message)  
print(type(message))  
print(message.lower().upper().title())
```

Defining functions with arguments

```
def main():
    n1 = 1
    n2 = 2
    n3 = 3

    print(function(n1, n2, n3))
    print(function(1, 2, 3))
    print(function(a = n1, b = n2, c = n3))
    print(function(b = n2, a = n1, c = n3))

def function(a, b, c):
    return b

main()
```

```
def function1():
    return x

def function2(x):
    return x

def function3():
    x = 1
    return x

def function4(x=0):
    return x

function1()
function1(1)
function2()
function2(1)
function3()
function3(1)
function4()
function4(1)
```

Where should we call `main()`?

```
# 1  
  
def main():  
    hello()  
  
# 2  
  
def hello():  
    print("Hello World!")  
  
# 3
```

return to break out of a function

```
def main():
    print("Hello World!")
    return # equivalent to "return None"
    print("Goodbye World!")

main()
print(main())
```

Indentation matters

```
def function():
    if condition1:
        do_something()

    if condition2:
        do_something_else()

    else:
        for item in lst:
            do_something()

    return something
```

Quiz prep

1. Review the slides and code examples (No DataCamp)
2. Mock exam on Ed
3. Post questions on Ed

Quiz format

- Part1: 30 minutes, 20 questions * 3 points each = 60 points
- Part2: 60 minutes, 8 questions * 5 points each = 40 points
 - You will have access to the correct versions of functions from previous questions.
- Click "Submit" for each question

A screenshot of a user interface for a quiz or lesson. At the top, there is a dark purple header bar with white text and icons. From left to right, the header contains: a back arrow icon labeled "Lessons", a menu icon labeled "Slides", and two buttons labeled "Prev" and "Next". Below the header, the main content area has a white background. In the center, the text "Quiz1 - Part1" is displayed in a large, bold, black font. Below this, there is a horizontal list of items. The first item is highlighted with a light blue background: it features a small icon of a checklist with three green checkmarks, followed by the text "Python Fundamentals". To the right of this highlighted item, there is a vertical gray line that separates it from the rest of the list. The remaining items in the list are white with black text: "Data Structures", "Control Flow", "Functions", "Lists", "Tuples", "Dictionaries", "Sets", "Strings", and "File I/O".

A screenshot of the same user interface as the first one, but with a different visual state. The "Python Fundamentals" item from the previous list is now highlighted with a light green background. This highlight extends from the icon to the end of the item's text. A green checkmark icon is positioned to the right of the word "Fundamentals". The rest of the interface, including the header and the other items in the list, remains identical to the first screenshot.