PYTHON FUNDAMENTALS

Joris Hoendervangers

Bootcamp

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AGENDA

Review yesterday's lab topics

- ✓ Comparisons
- ✓ Flow control:
    - ✓ "if / else" statements
    - ✓ "for" loops
    - ✓ "while" loops

Lab Session 4

- Functions
    - User defined functions
    - Modules
    - Packages

LEARNING OBJECTIVES

During this Bootcamp, you will learn:

Day 1:

- ✓ Variables
- ✓ Datatypes (string, int, float, bool)
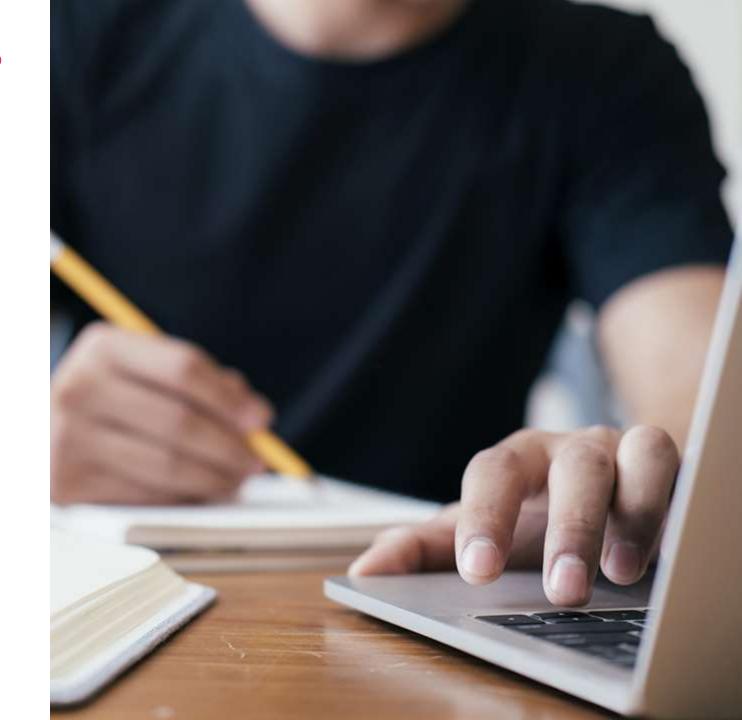
Day 2:

- ✓ Data structures (lists, tuple, dict, set)

Day 3:

- ✓ Flow control
  - ✓ If / else statements
  - ✓ For loops

Day 4:

- • Functions
  - • User defined functions
  - • Modules
  - • Packages

COMPARISON OPERATORS

```
x == y          # equal

x != y          # not equal


x > y           # greater

x < y           # less


x >= y          # greater or equal

x <= y          # less or equal
```

IF / ELSE

```python
temperature = 60


if temperature > 85:

    print("It is hot")

elif temperature > 65:

    print("It is nice")

else:

    print("It is cold")
```

FOR LOOPS

```python
ingredients = ["spam", "bacon", "ham", "eggs"]

for item in ingredients:
    print(item)
print("---> finished")



# break / continue
for item in ingredients:
    if item == "bacon":
        break
    print(item)
```

WHILE LOOPS

```
n = 1

while n < 5:
    print(n)
    n = n + 1

# Output
1
2
3
4
```

RANGE & ENUMERATE

```python
ingredients = ["spam", "bacon", "ham", "eggs"]

# Solution 1
n = 1
for item in ingredients:
    print(n, item)
    n = n + 1


# Solution 2
for n in range(len(ingredients)):
    print(n + 1, ingredients[n])


# Solution 3
for i, item in enumerate(ingredients, start=1):
    print(i, item)
```

```
# Desired output
1 spam
2 bacon
3 ham
4 eggs
```

LAB SESSION 4

Functions

- Built-in functions
- User defined functions
- Modules
- Packages

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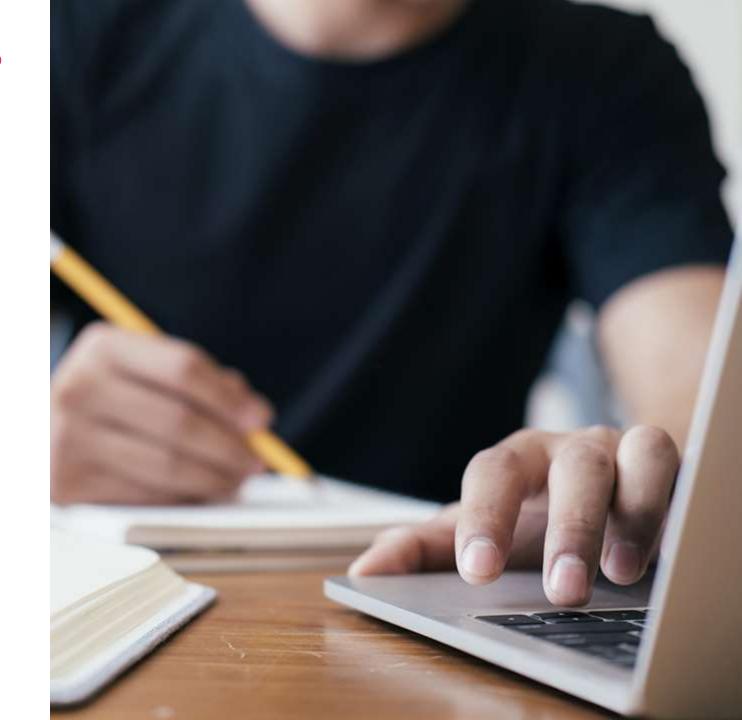
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WHAT'S NEXT?

WEB DEVELOPMENT

- Flask

- Django

DATA SCIENCE / ANALYTICS

- Pandas

- Numpy

- Matplotlib

- BeautifulSoup

THANK YOU!

Joris Hoendervangers

LinkedIn: https://www.linkedin.com/in/jorishoendervangers/