



PYTHON FUNDAMENTALS

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Bootcamp

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AGENDA

- Review yesterdays 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

```
temperature = 60

if temperature > 85:
    print("It is hot")
elif temperature > 65:
    print("It is nice")
else:
    print("It is cold")
```

FOR LOOPS

```
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

```
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

A photograph of three people in a classroom or office setting. In the foreground, a man with glasses and a beard, wearing a light blue shirt, is focused on his laptop. Behind him, two women are also working on laptops, slightly out of focus. They are all seated at a long wooden table. The image is partially obscured by a pink diagonal graphic element.

LAB SESSION 4

- Functions
 - Built-in functions
 - User Defined Functions
 - Modules
 - Packages

LEARNING

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WHAT'S NEXT?

Instructor video will appear here during live session. Delete this placeholder before presenting

WEB DEVELOPMENT

- Flask
- Django

DATA SCIENCE / ANALYTICS

- Pandas
- Numpy
- Matplotlib
- BeautifulSoup



THANK YOU!

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