



Bytes Beginner Fall 2021 Session 2!

Boston University Girls Who Code

The background features a white central area with the text "How was your week?". Surrounding this are several abstract, organic shapes in teal, dark blue, yellow, and red. A dark brown wavy line starts from the top left, loops around the text, and ends at the bottom right. The teal shape in the top left has white scribbles. The dark blue shape in the top right has small teal dots. The yellow shape in the bottom left has small teal dots. The red shape in the bottom right has a white scribble.

How was your week?

Women in STEM Spotlight



Rana el Kaliouby

- Egyptian-American computer scientist and CEO of AI software company *Affectiva*
- One of Forbes' Top 50 Women in Tech
- Driver of AI research, especially emotional recognition in AI softwares
- Applied AI into bettering communication for people with autism or mental health struggles
- Author of *Girl Decoded*

Refresher!

Which one is an assignment operator?

- A. #
- B. =
- C. ==

Variables can store...

- A. strings
- B. lists
- C. integers
- D. All of the above!

`print('hello')` **and** `print("hello \nworld")`
are valid print statements:

- A. True
- B. False

Refresher! - Answers

Which one is an assignment operator?

- A. #
- ☒ B. =
- C. ==

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Data Types

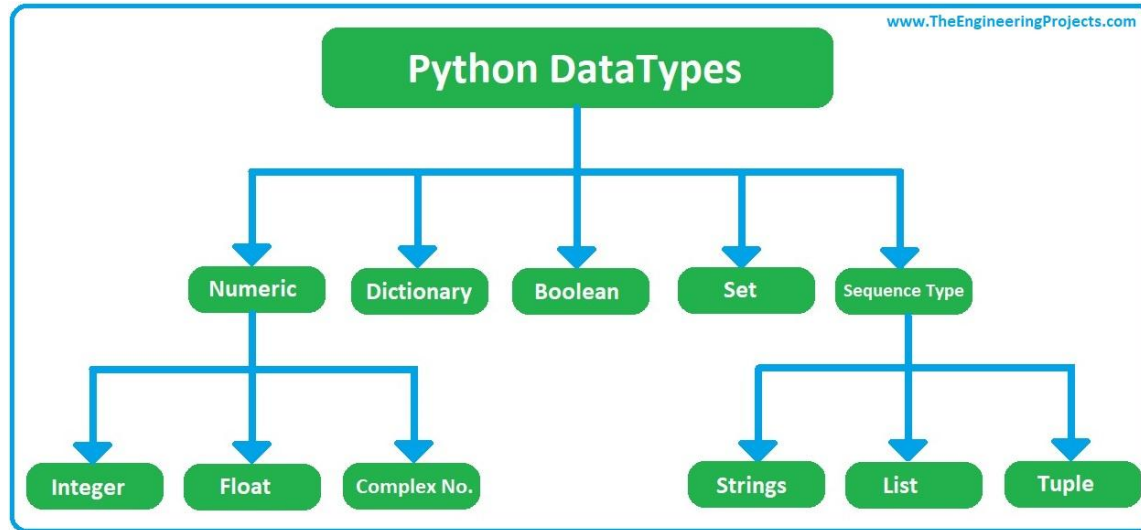
What are data types?

- Stored in variables
- Have different properties

Use **type()** to find a variable's data type:

```
age = 12  
print(type(age))
```

Output: <class 'int'>



Arithmetic Operations

Can use many arithmetic operators in python

- + addition
- - subtraction
- * multiplication
- / division

Other operators:

% modulus: returns the remainder

// integer division: returns the result of the division with no decimal places

What do these return?

$5\%2 = ??$ 

1



$7//3 = ??$ 

2



$11\%7 = ??$ 

4



New Functions

input()

- Takes user input to use in a program
- Allows for an interactive program

Ex:

```
input(str("Enter your name:"))
```

Console:

Enter your name:

While-loop

- Runs code within the loop while a certain condition is met
- Can keep track of a variable
 - while (x > 0):
- Or run continuously
 - while(True):

The background features abstract, organic shapes in dark blue, red, yellow, and teal. The red shape in the top right contains several small white dots. The teal shape in the bottom left contains several small dark blue dots. A thin black line curves across the middle of the image, passing behind the text.

Calculator Activity!

Open your python IDE

● Code in the drive



Questions?

- **Homework:** Finish your calculator and add extra functions (exponential, remainder division)

See you next week!

