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# Python Programming: Data Types

Present By. \_\_\_\_\_

**Dr Myo Thida**

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# Table of Content

- Different Data Types
- Identify data types
- Type Casting
- Methods under String Data Type

# Different Data Types

word

number

string

integer

float

int

float

string

Boolean

# Different Data Types - Quiz

1 1 1 1 1

3

3.99

“Bhutan”

True

-456

‘teacher’

False

# Identify data types

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- `type(12)` →
- `type(12.0)` →
- `type('12')` →
- `type("True")` → **string**
- `type(True)` → **bool**

# Type Casting

```
✓ [11] usd = 2000
0s
bp = usd *0.82
print("USD " + str(usd) + " is equivalent to " + str(bp))

{x}
USD 2000 is equivalent to 1640.0
```



# Type Casting

3.2

→ int(3.2)



'1'

→ int('1')



3

→ float(3)



2

→ str(2)



'A'

→ int('A')



# Convert 2 to a float

```
float(2)
```

# Convert integer 2 to a float and check its type

```
type(float(2))
```

# Casting 1.1 to integer will result in loss of information

```
int(1.1)
```

# Type Casting

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```
# Type of True  
type(True)
```

```
# Type of False  
type(False)
```

```
# Convert True to int  
int(True)
```

```
# Convert 1 to boolean  
bool(1)
```

```
# Convert 0 to boolean  
bool(0)
```

# Type Casting and Math Operation

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```
usd_amount = input ("Enter the amount in USD: ")
bp_amount = int(usd_amount) *0.82
print("{} usd is equivalent to {} british pound".format(usd_amount, bp_amount))
```

```
Enter the amount in USD: 1500
1500 usd is equivalent to 1230.0 british pound
```

# Math Operation

✓  $45 + 21$

✓  $16 - 72$

✓  $45 * 5$

✓  $25 / 5 \longrightarrow 5.0$

✓  $25 // 5 \longrightarrow 5$

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# String

"Myo Thida"

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# String Indexing

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- Positive Index starts from 0
- Negative Index from -1

```
my_name [-1]  
↓  
my_name = "Myo Thida"  
↑  
my_name [0]
```

# String Slicing

```
my_name = "Myo Thida"
```

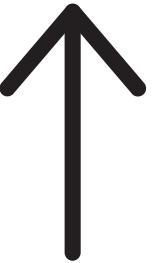
my\_name [0:3] → "Myo"

my\_name [4:] → "Thida"

# String Stride

```
my_name = "Myo Thida"
```

my\_name [0:5:2] → "MoT"



my\_name [:2] →

# Concatenating String

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```
my_name = "Myo Thida"
```

```
print("Hello" + my_name)
```

```
print("Hello" + 3*my_name)
```

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# Function and Methods for String

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# Functions for String

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```
my_name = "Myo Thida"
```

- To check the number of elements in a string or length of the string
  - `len(my_name)`
- To convert the string to upper or lower case
  - `my_name.upper()`
  - `my_name.lower()`

# Methods for String

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```
my_name = "Myo Thida"
```

- To find the word or character in the given string
  - `my_name.find("Thida")`
  - `my_name.find("a")`
- To replace the word or characters
  - `my_name.replace("Thida", "Thidar")`

# Methods for String

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```
my_str = "Python is awesome. I love Python"
```

- To count the number of appearance of a word or character.
  - `my_str.count("Python")`
- To split the sentence into group of words (by space)
  - `my_str.split(" ")`

# Methods for String

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```
my_str_white_space= " Python "
```

- To remove the white space (tailing or leading).
  - my\_str.strip()

# String format Method

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- To format a string using the placeholder {}
- Identify using named indexes {price}, numbered indexes {0}, or even empty placeholders {}
  - "My name is {name}, I'm {age}"".format(name = "Myo", age = 36)
  - "My name is {0}, I'm {1}"".format("Myo", 36)
  - "My name is {}, I'm {}".format("Myo", 36)

# Reading..

- A Practical Introduction to Python Programming

## Home work

Python Exercise – 2

## Get In Touch

 +95122334455

 myothida@parami.edu.mm

