Intro to Python

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TECHNOLOGY SCHOOL 1.0 (2022)

DATA ANALYSIS AND DATA VISUALIZATION

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   Estimated time needed: **50 min**

Python - Let's get to work now!</h1>

Welcome! This series of notebook will teach you to deepen your knowledge of Python programming language. You can go a step further by doing more than you have learnt here ?.

```
### Python Syntax
```

Exercise

Write a python comments using:

1. python programming
2. Data Science
3. Saturdays Learnning

```python
#Python programming
#Data Science
#Saturdays Learnning
```

Exercise

Write your name, age, favourite_number i.e using

1. my_name
2. my_age
3. my_favourite_number

```python
my_name = 'chisom'
my_age = 26
my_favourite_number = 17

print('My name is: ', my_name)
print('My_age: ', my_age)
print('My_favourite_number: ', my_favourite_number)
```

Variables

Exercises

1. Define `my_name` and `my_age` variables with values corresponding to your own name and age and print them.
2. Use your `my_age` variable to print out how old you will be in 10 years.
3. Difference between Variables and Names.

```python
my_name = "chisom"
my_age   = 26
age_in_ten_years = 10 + my_age
```

```python

```

Exercises

1. What is the value of x, where x = 3 + 2 * 2
2. What is the value of y = (3 + 2) * 2
3. What is the value of z, where z = x + y

```python
x = 3 + 2 * 2
y = (3 + 2) * 2
z = x + y
```

Strings

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Write your words into strings

1. `Electromagrntism`
2. `Python Programming`
3. `Classes`

In [ ]:
```python
A = "Electromagrntism"
B = "Python Programming"
C = "Classes"
```

Exercise

1. Use slicing to find the first four elements of the following string: `Letters = "ABCDEFGHIJK"`
2. Use a stride value of two on the following string : `Good = "GsoAo+d"`
3. Convert the string "uppercase" to `uppercase, lowercase  and titlecase`.

In [ ]:
```python
### Exercise
Letters="ABCDEFGHIJK"
Letters[0:5]
```

In [ ]:
```python
Good="GsoAo+d"
Good[::2]
```

In [ ]:
```python
a = "uppercase"
a.upper()
a.lower()
a.title()
```

Object Types

Exercise

1. List the types of basic objects types in python.
2. What is the difference between Data Types and Object Types.
3. What methods helps you determine object type in python.

Exercise

1. `34566` is of what object type?
2. `Arsenal` is of what object type?
3. `'Dora'` is of what object type?

In [ ]:
```python
type(34566)
```

In [ ]:
```python
type("Arsenal")
```

In [ ]:
```python
type("Dora")
```

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Type Casting

Exercise

1. What is the value of the `result = 6 / 2`
2. Save the result to a variable and check the type
3. Convert variable to a string

```
In [ ]:  result = 6/2
```

```
In [ ]:  type(result)
```

```
In [ ]:  str(result)
```

Exercise

1. Convert a String your choice to float
2. Convert a float your choice to Boolean
3. Convert a Int your choice to String

```
In [ ]:  float('12')
```

```
In [ ]:  bool(2.1)
```

```
In [ ]:  str(23456)
```

About this Instructor:

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ChisomLoius is very passionate about Data Analysis and Machine Learning and does lot of free lance teaching and learning. Holding a B.Eng. in Petroleum Engineering, my focused is leveraging the knowledge of Data Science and Machine Learning to help build solutions in Education and High Tech Security. I currently work as a Petrochemist.

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