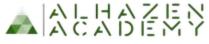


Python – Data Types



#JagolT

READY TO START?



السلام عليكم

Doa ilmu bermanfaat

رَبِّ زِدْنِي عِلْمًا وَارْزُقْنِيْ فَهُمًا وَاجْعَلْنِيْ مِنَ الصَّالِحِيْنَ

Robbi zidnii 'ilmaa warzuqnii fahmaa, waj'alnii minash-shoolihiin

"Ya Allah, tambahkanlah aku ilmu dan berikanlah aku rezeki akan kepahaman, dan jadikanlah aku termasuk golongan orang-orang yang saleh."

As Saffat ayat 6

إِنَّا زَيَّنَّا السَّمَاءَ الدُّنْيَا بِزِينَةٍ الْكَوَاكِبِ

Sesungguhnya Kami telah menghiasi langit dunia (yang terdekat) dengan hiasan (berupa) bintang-bintang.



PAY ATTENTION!



for Teacher & Student

- Prepare Laptop / PC
- Focus & Listen carefully
- Open Cam and Mic
- Share screen project
- Good Communication
- Respect and kindness
- Do your best



In this lesson, you will learn about

- 1. Data Types
- 2. Get Data Types
- 3. Set Data Types
- 4. Convert Data Types





Introduction

A data type is an attribute associated with a piece of data that tells a computer system how to interpret its value.

In programming, data type is an important concept.

Variables can store data of different types, and different types can do different things.





Introduction

Python has the following data types built-in by default, in these categories:

```
# Python Data Types

Type Data Types
========

Text str
Numeric int, float, complex
Sequence list, tuple, range
Mapping dict
Boolean bool
NoneType None
```





Get Data Type

To find out what data type in the data, we can use type() function

```
# Get Data Types
name = "Jaka"
print(type(nama))
number1 = 150
print(type(number1))
number2 = 12.5
print(type(number2))
fruits = ["apple", "banana", "cherry"]
print(type(fruits))
active = True
print(type(active))
car_model = None
print(type(car_model))
```



Set Data Type

Setting data type is just about assigning value with a proper data-type-way

```
# Set Data Type
# str, use "" or ''
name = "Jaka"
print(type(nama))
# int, only numbers
number1 = 150
print(type(number1))
# float, numbers with floating point
number2 = 12.5
print(type(number2))
# list, many values stored insise [ ]
fruits = ["apple", "banana", "cherry"]
print(type(fruits))
# boolean, True or False
active = True
print(type(active))
# None, to set a None or Null value
car_model = None
print(type(car_model))
```



Convert Data Type

A date type can be converted into another data type by using its constructor function

```
# Converting Data Types
integer = 150
float_num = 13.6
string = "Welcome"
# to srting, str()
string1 = str(integer)
string2 = str(float_number)
# to list, list()
list1 = list(string)
# to float, float()
number1 = float(integer)
# to integer, int()
number2 = int(float_num)
```

Designed by Reza Malik UU No. 19 Tahun 2002 tentang Hak Cipta

Not all data types can be converted to

any data types



Project

Let's create a project based on the case!

Case = Data Type List

- Create a new file called python-data-types.py
- Create 5 variables with its values in various data types
 - . String
 - . Integer
 - . Float
 - . Boolean
 - . None
- Print each values followed by its data type using type() function



Conclusion

- A data type is an attribute associated with a piece of data that tells a computer system how to interpret its value.
- Variables can store data of different types, and different types can do different things.
- To find out what data type it is, we can use type() funciton
- Setting data type is just about assigning value with a proper data-type-way
- Converting data type is allowed using its data type constructor, but not all data types can be converted into any data types

