

# Data Types in Python



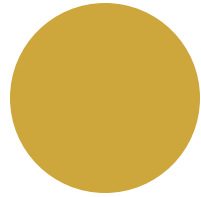
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GROUP SINTAKS

# Group Sintaks



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# Data Types

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- List
  - Tuple
  - Set
  - Dictionary
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# List



List is a data type similar to array. It's an ordered collection of items. The items in the list don't have to be of the same data type. Items in the list can be changed or mutable.

```
list = ["askar", "galang", "khalishah", "tifani", "ilham"]  
  
type(list)  
  
list  
  
print(list)  
  
['askar', 'galang', 'khalishah', 'tifani', 'ilham']
```



# List



There are several operations that can be done on list.

- `len()`, is used to check the length of a list

```
list = ["askar", "galang", "khalishah", "tifani", "ilham"]  
len(list)
```

```
5
```

- `del`, is used to delete the item of a list in a specified index

```
del list[4]
```

```
print(list)
```

```
['askar', 'galang', 'khalishah', 'tifani']
```

# List



- `append()`, is used to add an item to a list

```
list.append("ilham")
```

```
print(list)
```

```
['askar', 'galang', 'khalishah', 'tifani', 'ilham']
```

- `extend()`, is used to add multiple items to a list

```
list.extend([2.0, "sintaks"])
```

```
print(list)
```

```
['askar', 'galang', 'khalishah', 'tifani', 'ilham', 2.0, 'sintaks']
```

# Slicing

Slicing is not a data type. In Python, it is a feature that enables accessing parts of sequences like strings, tuples, and lists. You can specify where to start and where to end the slicing, separated by a colon (:). And you can also specify the step, which determines the increment between each index.

```
list[4]
```

```
'ilham'
```

```
list[1:4]
```

```
['galang', 'khalishah', 'tifani']
```

```
list[:3]
```

```
['askar', 'galang', 'khalishah']
```

```
list[-2:]
```

```
['tifani', 'ilham']
```




# Tuple



Tuples are the same as lists, the difference is that the elements of list is mutable, while the elements of tuple is immutable.

```
tuple = ("askar", "galang", "khalishah", "tifani", "ilham")  
  
type(tuple)  
  
tuple  
  
print(tuple)  
  
( 'askar', 'galang', 'khalishah', 'tifani', 'ilham' )
```



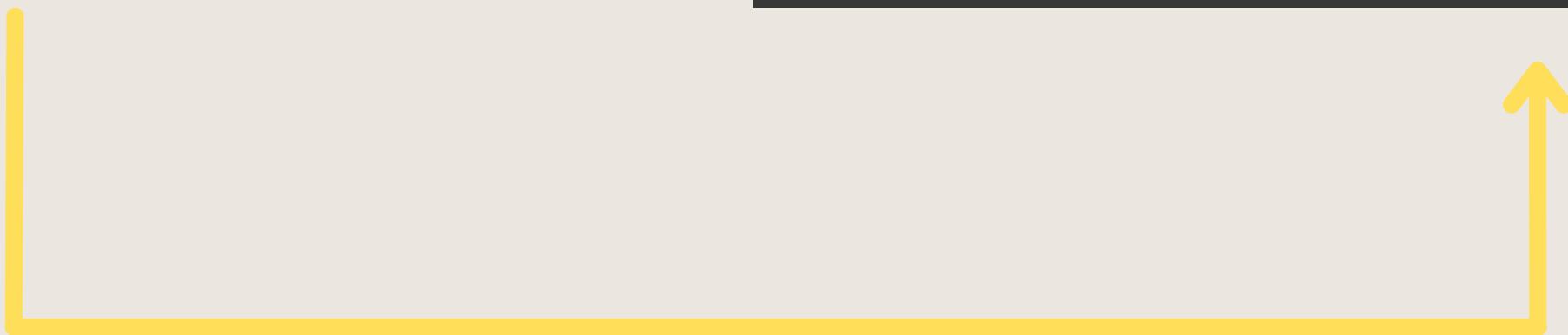


# Set



Set is an unordered data type, and set is mutable. The output of a Set is a data with no duplicates.

```
set = {"askar", "galang", "khalishah", "tifani", "ilham"}  
  
type(set)  
  
set  
  
print(set)  
  
{'ilham', 'tifani', 'khalishah', 'galang', 'askar'}
```



# Dictionary

Dictionary is an unordered data type. In Dictionary, there is a pair of **key: value**, each key has only one value, and is separated by a colon (:).



```
dictionary = {"group": "sintaks",  
              "class" : "data science B",  
              "mentor": "Kak Suwarti"}
```

```
type(dictionary)
```

```
dict
```

```
dictionary["group"]
```

```
'sintaks'
```

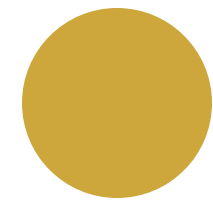
```
dictionary["class"]
```

```
'data science B'
```

```
dictionary["mentor"]
```

```
'Kak Suwarti'
```





# What's the difference ?

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- List `[]`

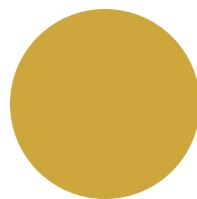
```
list = ["askar", "galang", "khalishah", "tifani", "ilham"]
```
  - Tuple `()`

```
tuple = ("askar", "galang", "khalishah", "tifani", "ilham")
```
  - Set `{}`

```
set = {"askar", "galang", "khalishah", "tifani", "ilham"}
```
  - Dictionary `{key:value}`

```
dictionary = {"group":"sintaks", "class" : "data science B", "mentor":"Kak Suwarti"}
```
- 



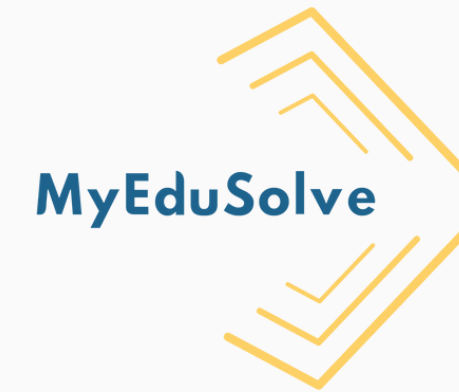
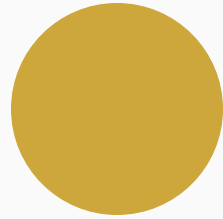


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If you are interested in learning more, you  
can access our GitHub about data types

 <https://github.com/haqiqi7/Python-Data-Types>





# Thank You

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“Everybody should learn to program a computer, because it teaches you how to think.” - Steve Jobs

