



DAY 1

Instructor: Balu MOHANDAS
Menon

Christian B. Wiberg
Philip Jess Teining

COMPARISON & LOGICAL OPERATORS

AND	<code>a && b</code>	True if a <i>and</i> b are true
OR	<code>a b</code>	True if a <i>or</i> b are true
NOT	<code>!a</code>	True if a is false
Equal to	<code>a == b</code>	True if a and b are equal
Not equal to	<code>a != b</code>	True if a are false and b are false
Greater than	<code>a > b</code>	True if a are greater than b
Less than	<code>a < b</code>	True if a are less than b
Less than or equal to	<code>a <= b</code>	True if a is smaller or as large as b
Greater than or equal to	<code>a >= b</code>	True if a is larger or as large as b



PYTHON DATA STRUCTURES

- Lists, Tuples, Sets, Dictionaries are the python data structures

Used to store and organize the data in an efficient manner.

Differ basically on mutability and order



PYTHON DATA STRUCTURES – LISTS



List_A = [item 1, item 2, item 3....., item n]



A list can be nested, which means that it can contain any type of object.



Lists are mutable

PYTHON DATA STRUCTURES - TUPLES

`tuple_A = (item 1, item 2, item 3,..., item n)`

Lists are mutable, whereas tuples are immutable.

Tuples cannot be modified, added, or deleted once they've been created.

Tuples are preferred over lists when the user does not want the data to be modified.

PYTHON DATA STRUCTURES - SETS



```
set_a = {"item 1", "item 2", "item 3", ....., "item n"}
```



A set is defined as a unique collection of unique elements that do not follow a specific order.



Unlike tuples, sets are mutable – they can be modified, added, replaced, or removed. Unique Elements: Sets only store unique elements. Adding a duplicate element will have no effect.

PYTHON DATA STRUCTURES - DICTIONARY

- An unordered collection of items
- Key : value pair

```
userpass_dict = { key      : value
                  "chris"  : "passwd123",
                  "admin"  : "admin123",
                  "admin"  : "ad", #this overwrites the
                  }
userpass_dict['chris']
```