
PYTHON WORKSHOP

Python Fundamentals

Prepared by the Artificial Intelligence Research Center (AIRC), Ajman
University, Ajman, UAE



Workshop Outlines

 ~~Workshop Overview~~

 ~~Project Demo~~

 ~~Introduction to Python~~

 ~~Starting with Colab~~

 ~~Comment and Print~~

 ~~Variables and simple
data types~~

 ~~String manipulation~~

 ~~If Statements~~

 ~~Loops~~

 **Functions**

 **Lists**

 **Dictionaries**

 **Final Project**

Functions : create & call

 Create Function :



```
def function_name (arguments)
    #statements to be executed
    return -999
```

 Calling Function :



```
X = function_name(arguments)
X
```

-999

Functions: Special parameters

 Arbitrary Arguments, *args

If you do not know how many arguments that will be passed into your function, add a * before the parameter name in the function definition.

This way the function will receive a *tuple* of arguments, and can access the items accordingly:



```
def my_function(*kids):  
    print("The youngest child is " + kids[2])  
  
my_function("Emil", "Tobias", "Linus")
```

Functions: Special parameters

Default Parameter Value

If we call the function without argument, it uses the default value:



```
def my_function(country = "Norway"):  
    print("I am from " + country)  
my_function()  
my_function("Brazil")
```

Functions: pass statement





function definitions cannot be empty, but if you for some reason have a function definition with no content, put in the pass statement to avoid getting an error



```
def myfunction():  
    pass
```

Exercise 1





python

-  Create a function with name printList and a list parameter
-  Iterate through the list and print each element in the list
-  Return statement of the function should return the list
-  call the function

Start

Exercise 2

python

-  Create a function with name `there_exists` and a list of strings , and a string variable as parameters and if user forgot to enter a string assume it to be "do nothing"
-  Iterate through the list of strings and search for word match with the string variable
-  Return true if match is found and false If match was not found
-  Call/test the function as the following

```
there_exists(["what's the time","tell me the time","what time is it","what is the time"],"what is time now")
```

Start