



**TOT - Python Programming Essentials**

**Day 5**

# FUNCTION

A function is a block of organized, reusable code that is used to perform a single, related action. Functions provide better modularity for your application and a high degree of code reusing.

# DEFINING A FUNCTION

A function is a block of organized, reusable code that is used to perform a single, related action. Functions provide better modularity for your application and a high degree of code reusing.

- ❑ Function blocks begin with the keyword **def** followed by the function name and parentheses ( ( ) ).
- ❑ Any input parameters or arguments should be placed within these parentheses. You can also define parameters inside these parentheses.
- ❑ The code block within every function starts with a colon (:) and is indented.
- ❑ The statement `return [expression]` exits a function, optionally passing back an expression to the caller. A return statement with no arguments is the same as `return None`.

# DEFINING AND CALLING A FUNCTION

```
def greet():  
    print("hi")
```

```
greet();
```

# FUNCTION WITH PARAMETERS

```
def greet(name):  
    print("hi" + name)  
  
greet('John');
```

# FUNCTION WITH DEFAULT VALUE PARAMETERS

```
def greet(name="John Doe"):
    print("hi" + name)
```

```
greet();
greet("Ana");
```

# FUNCTION WITH RETURN

```
def greet():  
    return "Hello"
```

```
print(greet());
```

# DAY 5 ACT 1

1. Write a program that computes students average
2. Use a function with 4 parameters (Name, Math, English and Science Grade)
3. Reference the function 3 times with different values
4. Save your file as **lastname\_firstname\_day5\_act1.py**

## Output

John's grade (Math=?, Science=?, English=?) and the average is ?

Ana's grade (Math=?, Science=?, English=?) and the average is ?

Frank's grade (Math=?, Science=?, English=?) and the average is ?



# REVERSING A STRING

```
revstr1 = 'This TEXT is REVERSED!'  
print(revstr1[::-1])
```

# USING REVERSE IN A FUNCTION

```
def revstr(str1):  
    return str1[::-1]  
  
mytxt = revstr("You will see that this text is reversed!")  
  
print(mytxt)
```

## DAY 5 ACT 2

1. Write a Python program to reverse a string
2. The user will input a word
3. Create a function that will reverse the string.
4. Display the original word, the reversed word in all caps and string count.
5. Save your file as **lastname\_firstname\_day5\_act2.py**

INPUT: **Hello World**

OUTPUT: **DLROW OLLEH (11 characters)**