🔴 **Task 07**

Topics: Functions in Python, Docstrings, Definition, Calling, Passing Arguments to Functions, Returning Values, Arbitrary Number of Arguments, explore "Don't Repeat Yourself"

Functions in Python

```python
# Message
def display_message():
    print("I love to learn new things")
display_message()
# Favourite Book
def favorite_book(title):
    print("One of my favorite book is " + title.title())
favorite_book("Holy Quran")
```

```
I love to learn new things
One of my favorite book is Holy Quran
>
```

Passing Arguments to Functions

```python
def describe_city(name, country='Pakistan'):
    print(name.title() + " is in " + country.title())



describe_city("Rawalpindi")
describe_city("Makkah", "KSA")
```

```
Rawalpindi is in Pakistan
Makkah is in Ksa
>
```

Returning Values

```python
def city_country(city, country):
    info = '"' + city + ', ' + country + '"'
    return info


print(city_country("Islamabad", "Pakistan"))
print(city_country("Auckland", "New Zealand"))
print(city_country("Sydney", "Australia"))
```

```
"Islamabad, Pakistan"
"Auckland, New Zealand"
"Sydney, Australia"
>
```

```
main.py                                              David Blaine
                                                     David Copperfield
1 v def show_magicians(magicians):                   Apollo Robbins
2 v     for magician in magicians:                   Shin Lim
3           print(magician)                          >
4
5
6   magicians = ['David Blaine', 'David Copperfield', 'Apollo
    Robbins', 'Shin Lim']
7
8   show_magicians(magicians)
```

Arbitrary Number of Arguments

```
main.py                                              Your sandwich contains:

1 v def make_sandwich(*ingredients):                 roast beef
2       print("Your sandwich contains:\n")           cheddar cheese
3 v     for ingredient in ingredients:               lettuce
4           print(ingredient)                        honey dijon
5       print('\n')
6                                                     Your sandwich contains:
7
8   make_sandwich('roast beef', 'cheddar cheese', 'lettuce',   turkey
    'honey dijon')                                   apple slices
9   make_sandwich('turkey', 'apple slices', 'honey mustard')   honey mustard
10  make_sandwich('peanut butter', 'strawberry jam')
11                                                    Your sandwich contains:

                                                     peanut butter
                                                     strawberry jam
```

End