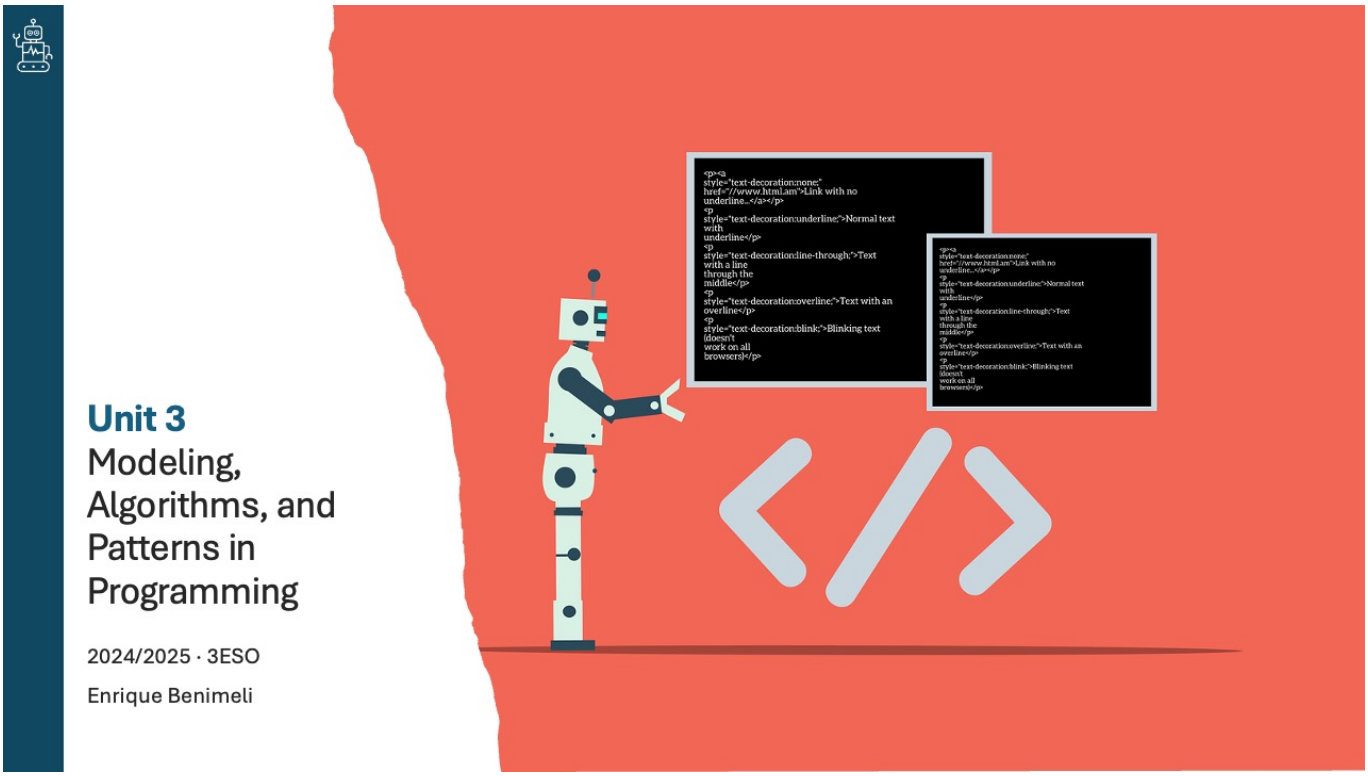
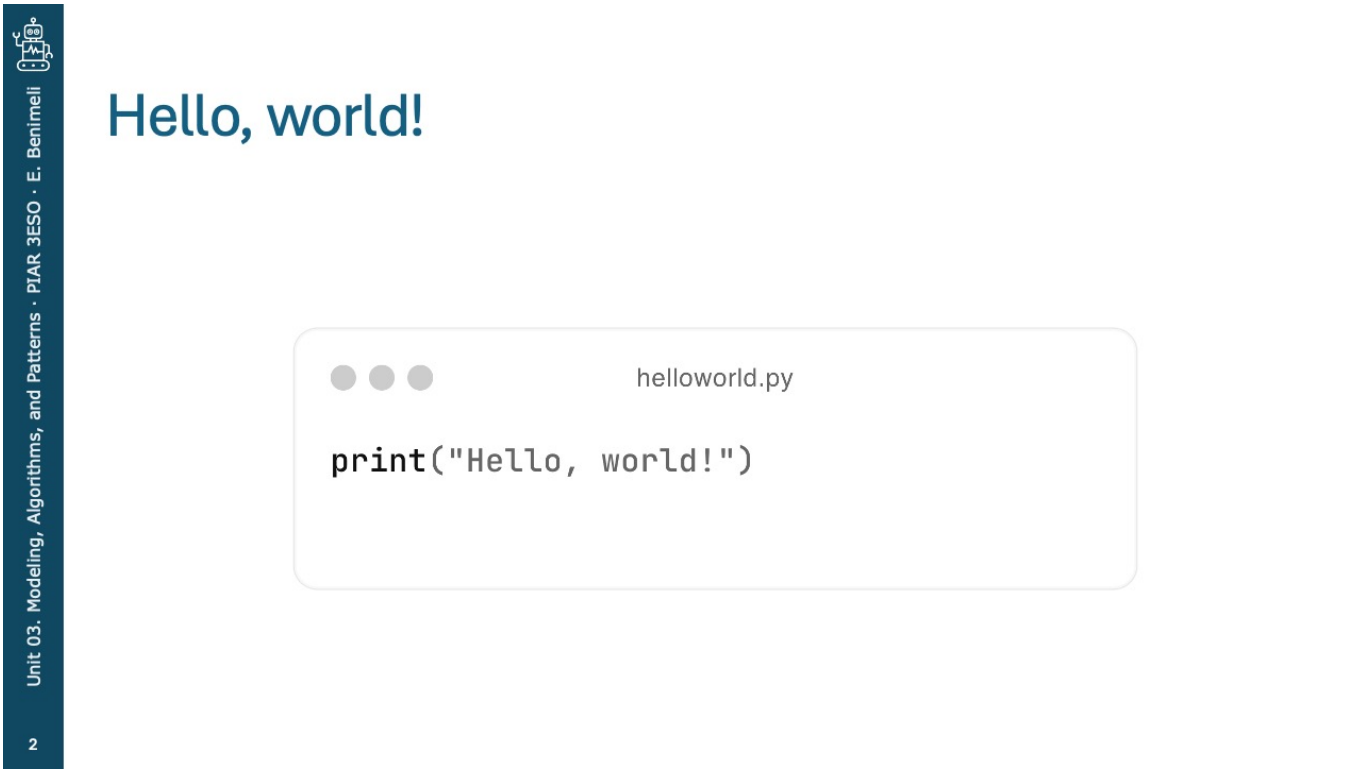
Unit 3. Presentation Slides

Learning Python





Functions

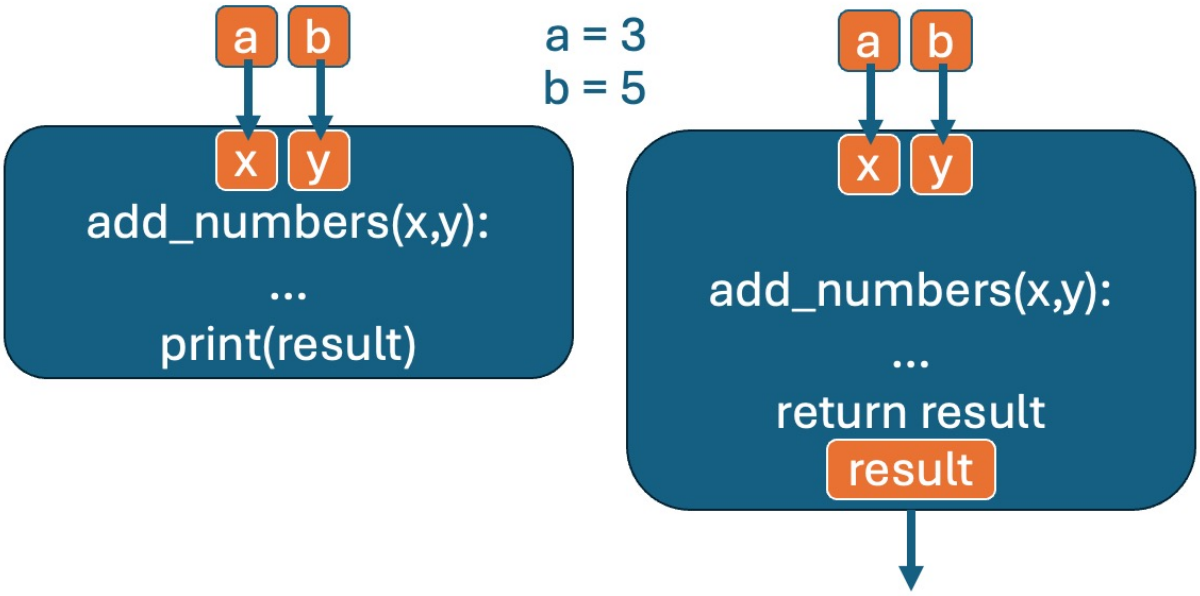
- In Python, **functions** are like little helpers that perform specific tasks.
- They make **code organized** and reusable.
- Let's explore different **types** of functions.

f_sayhello.py

```
# Function definition
def say_hello():
    print("Hello, world!")

# Function Call
say_hello()
```


Functions with/without return value



Function: *add_numbers* (without return value)

- This Python code **defines** and **calls** a function that adds two numbers and prints the result.
- This is a function <u>without</u> a **return value**.

add_numbers.py

```python
# Function definition
def add_numbers(x, y):
    result = x + y
    print("Sum:", result)

# Function call
add_numbers(5, 3)
```


Function: *add_numbers* (with return value)

- This Python code **defines** and **calls** a function that adds two numbers and prints the result.
- This is a function **<u>with</u>** a **return value**.

add_numbers_r.py

```python
# Function definition
def add_numbers(x, y):
    result = x + y
    return result

# Function call and return value
sum_xy = add_numbers(5, 3)
# Print result
print("Sum:", sum_xy)
```

Function: *get_average*

- This Python code defines a function that **calculates the average** of two numbers and **returns** the result.

get_average.py

```python
# Function definition
def getAverage(x1, x2):
    x = (x1 + x2) / 2
    return x
# Function call
average = getAverage(6,4)
print(average)
```


Function: getTextGrade

- This Python code defines a function that **converts** a numerical grade into a text-based evaluation (e.g., "Very good", "Good", or "Fail").

get_text_grade.py

```python
# Function definition
def getTextGrade(ngrade):
    text = ""
    if ngrade >= 7.5:
        text = "Very good"
    elif 5 <= ngrade < 7.5:
        text = "Good"
    else:
        text = "Fail"
    return text

#Function call
t = getTextGrade(8)
print("Final grade: ", t)
```

Programming, Artificial Intelligence and Robotics II

Presentation

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