

## Computational Finance and FinTech – Problem Set 1

**Exercise 1.** Download and install Python and Jupyter Notebook (e.g. via Anaconda). Make sure you can run the Jupyter Notebook `00_getting_started.ipynb`.

**Exercise 2.** Let `name = "John Smith"`. What are (explain!)

- `name[1]`,
- `name[-2]`,
- `name[1:-1]`?

How do you refer to all letters except the first one?

**Exercise 3.** What is the result of `f"{2+2}+{10%3}"`? Explain.  
(Hint: <https://realpython.com/python-f-strings/>)

**Exercise 4.** Let `name = "john smith"`. What does `name.title()` return? Explain.

**Exercise 5.** How can you check if `name` contains `"John"`?

**Exercise 6.** If `x = 1`, what is the value of `x` after executing `x += 2`? Explain!

**Exercise 7.** What is the result of `10 == "10"`? Explain!

**Exercise 8.** What is the result of `"bag" > "apple"`? Explain!

**Exercise 9.** Write a function that returns the maximum of two numbers.

**Exercise 10.** Write a function that takes one integer parameter and returns all prime numbers between 1 and the given argument (the value passed as the parameter).