Recitation 01
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First steps with Python

Exercise 1 - Evaluate expression

Using the Python interpreter, type `1 + 2` and then hit return. Check out what happens.

`*` is the *multiplication operator*, and `**` is the *exponentiation operator*. Experiment by entering different expressions and recording what is displayed by the Python interpreter.

Exercise 2 - Syntax error

Type `1 2` and then hit return. Check out what happens this time.

In many cases, Python indicates where the syntax error occurred, but it is not always right, and it doesn't give you much information about what is wrong. So, for the most part, the burden is on you to learn the syntax rules.

Exercise 3 - Print `hello`

Type `print("hello")` at the Python prompt. Check out what happens.

Now type `"hello"` and check your result.

Exercise 4 - Say "cheese"

Type `cheese` without the quotation marks. What kind of error is this?

Exercise 5 - Shell vs. script mode

Type `6 + 4 * 9` at the Python prompt and hit enter. Check what happens.

Now create a python script named `test1.py` with the following contents:

```
6 + 4 * 9
```

What happens when you run this script? Now change the contents to:

```
print(6 + 4 * 9)
```

and run it again. What happened this time?

Exercise 6 -   Getting to know `print`

Write a program named `using_print1.py` that displays the following then run from the command prompt:

```
This is line 1.

This is line 2, with a blank line above it.
```

Exercise 7 -   Binary Numbering System

Numbers are represented in decimal system by default in Python. But it is also possible to input positive integers in binary directly.
Type in the interpreter `0b10011010` and check out what happens. Try different binary values and check if the conversion is correct.

Python also has a *built-in function* that allows one to display numbers in binary representation. Type `bin(100)` and check out what happens. What kind of output is displayed?
Try with different values.