

Web Application Development using Python

Introduction to Programming using Python

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Outline

- The Python interpreter
- Your first Python script
- Numbers and Math
- Storing data in variables
- Text and Strings



The Python interpreter

```
Python 3.8.5 (v3.8.5:580fbb018f, Jul 20 2020, 12:11:27)
[Clang 6.0 (clang-600.0.57)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> 2+4
6
>>> 2+3*4
14
>>> name = "Python Web"
>>> name
'Python Web'
>>> print("Hello,", name)
Hello, Python Web
>>>
```

Your first Python script

W2/S1/printing/hello_world.py

```
# A simple hello, world script.
```

```
print("Hello, world!")  
print("Welcome to Python Web.")
```

Numbers and Math

W2/S1/arithmetic/

- **Basic arithmetic**

- $+ - / * \%$

- **Logical comparator**

- $< > <= >= != ==$

- **Additional operators**

- $**$

- $//$



Storing data in variables

W2/S1/variables

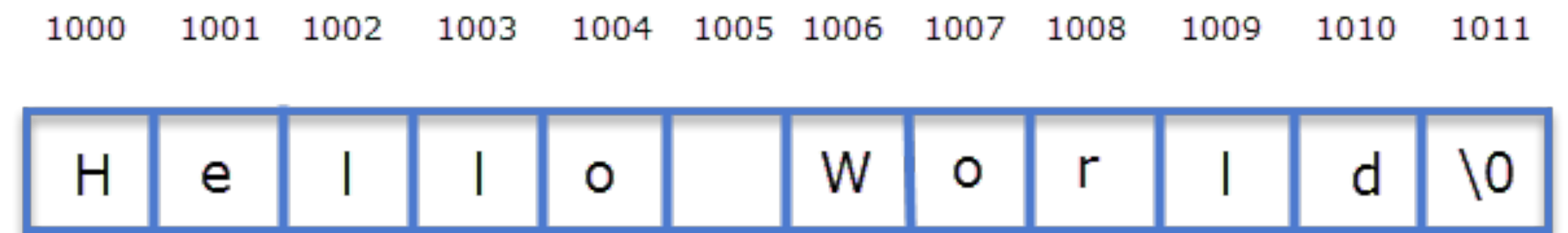
- What is a **variable**?
 - A variable is nothing more than a name for something.
- Variables in Python are dynamically typed.
- `name = "Nicola Tesla"`
- `age = "86"`



Text and Strings

W2/S1/variables

- Strings are used as the data type for text.
- We can create them simply by enclosing characters in quotes.
- Python treats single quotes the same as double quotes.



- `hello = 'Hello World!'`
- `class_msg = "Welcome to Python web (ICTC5)."`

String formatting

ex8.py / ex9.py / ex10.py / ex11.py

- `name = Alan Turing`
- `balance = 11001111`
- `print('Hello, %s.' % name)`
- `print('Your current balance is %d.' % balance)`

Learning Resources

- <https://docs.python.org/3/tutorial/index.html>
- <https://docs.python.org/3/tutorial/interpreter.html>
- <https://docs.python.org/3/tutorial/introduction.html>