

Lesson: Python for Web Development

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Objective

The next few series of lectures on python are introductory. These lectures are aimed to get familiar with python, and how to use for web development.

Python -3

- Python is a pretty popular language because
 - Easy to learn
 - Less verbose
 - Python has support for external framework such as Tensor flow, pyCuda etc.
- Python can be used for web development, there are some well known popular python based web-frameworks such as Django, and flask
- Real-World Python based web application- Instagram, Facebook (Migrating from PHP)

Python 3

- Python is an interpreter, just like JavaScript
- Interpreter is different from compiler, one significant difference is we can only see error during run-time
- Unlike C/C++, Java they have compilers, if there is any syntax error we will know at the time of compiling
- There are many version of Python, we will use Python 3.7 or the latest version available

Python 3 - Installation

- Let's install python-
 - Python Installation Link - <https://www.python.org/>
- After we install python, we should be able to run it from command line such as git bash
- Class Demo -- helloworld.py
- *.py is used for all python files, similar to what we do *.html for html files

Python Examples

Class Demo, Examples will be uploaded to Github

Indentations

- In all languages indentation is for readability purpose, however in python indentation is pretty important
- If indentation is wrong, python will give you a runtime error
- Try adding extra space, and see what happens

Python Variables, Types & Casting

- In JavaScript if you remember we used to define variables using var, In python we don't need to use var, just simply say `x=10`
 - `y= 10, test="abcd"`
- To know the data type of a variable try `type(x)`
- We can change the variable datatype `x= int("5")`, now x becomes int

Python Strings

- Strings can be surrounded by single quotation or double quotation
 - `x='test'` or `x="test"` both are correct
 - Strings have few inbuilt functions such as length of String, strip whitespace.
- Examples -- Class Demo

Python Loops & Condition

- We can use the for loop for iterating Example

For x in fruits :

```
print(x)
```

- If condition can be used for validation

```
If b<a : print("I am in ")
```

Python Functions

- Function is a block of code which only runs when it is called
- We can create functions in Python as well
 - Syntax - `def my_function():`
- Example- Classroom demo