**Python training Notes:**

**Course Name:** **SCRIPT 502 Intermediate Python**

**Day 2 : 21 Feb 2020**

**Expectation Setting : ASL (Assisted Self-Learning) 4Hrs session daily**

**And then do self-study and hands on assignments form below learning course link:**

**ROC course :**

<https://knowledgecenter.persistent.co.in/ViewCourse/pmoc>

***Please visit the following URL to view the collaborative learning group :***

<https://persistentuniversity.persistent.co.in/CollaborativeLearningGroup/view.aspx?SkillId=10339>

You can also view my Python Video recording as a part Smart India Hackathon 2018 at -

<https://www.youtube.com/watch?v=zF-0vJeIxt8&feature=youtu.be>

**Topics covered:**

**Functional Programming:**

List Comprehension

Lambda

Map(), map with lambda, map in multiple itarable objects

Filter()

List sorting

**OOP**

OOP class , object creation, constructor, instance method

Class variable

Static method

Class method

Special methods overriding implementation : \_\_str\_\_ , \_\_repr\_\_, \_\_add\_\_

**Modules/Packages**

Module – Procedural oriented programming

OOP

**Miscellaneous Modules**

**Database connectivity**

**Linux execution**

**\*\*\*\*\*To Do for Day2:**

<https://knowledgecenter.persistent.co.in/ViewCourse/pmoc>

**Learn all nuggets from above KC link (These are Pre requisite Basic Python learning modules)**

Nugget 1 : Introduction to Python & Python Fundamentals

Nugget 2 : Python Basics

Nugget 3 : Nugget 3 : Python Control Structures

Subjective Assignment for Nugget 1 to 3 : Only for self Practice

Nugget 4 : Functions & Modules

Nugget 5 : I/O & Exception handling

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**Intermediate Python Nuggets:**

Nugget 6 : Regular Expressions in Python

Nugget 7 : OOPs in Python

522

1. Complete reading all above Nuggets

2. Please execute all codes in these nuggets

3. Start solving assignment at the end of Nuggets

**Execute all codes from the folder :**

**Day 2 –**

**Functional Programming**

**OOP**

**Database**

**some modules**

**Assignments to do:**

1. Create BankAccount class

Specify initial amount in Bank account as 50000

Write functionality for showBalance()

Deposit(amount)

WithDrawl(amount)

Error to be handled if Withdraw amount is greater that available balance.

2.

Given html tab line as below as input,

htmltag = "<img>Image Text</img>”

#or

#htmltag = "<a>Anchor tag</a>”

validate a given html tag for img or a tag

Hint:

pattern =r"^<(img)>[\w\s]+<\/\1>$"

4.Given temperatures in a list like-

Celsius = [39.2, 36.5, 37.3, 37.8]

1. Convert all these temperature values into Fahrenheit and store in a target list – Fahrenheit =[]

Use map and lambda. Hint : formula - (float(9)/5)\*x + 32

b) Convert above Fahrenheit list into Celsius list.

Use map and lambda. Hint : formula - (float(5)/9)\*(x-32),

5. Let’s say I give you a list saved in a variable: a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100].

Write one line of Python that takes this list a and makes a new list b

that has only the even elements of this list in it. (Use filter and lambda)

***6***. Given a string

sentence = 'It is raining cats and dogs'

get 1 target list with length of each word in this sentence

Hint : Use map, lambda, split appropriately

**6.** sort the list of following names by an ascending order of number of letters in each name

unsortedList = ['Aaaa', 'bb', 'cccccccc', 'zzzzzzzzzzzz']

**7.**

Write Python script for database connectivity using sqlite3 or MySQLdb module.Create a table from the script, please drop it if it already exists.

CREATE TABLE users(id INTEGER PRIMARY KEY, name TEXT,

phone TEXT, email TEXT unique, password TEXT)

Accept some values for varaibles-

name1 ,phone1 ,email1, password1 , e.g.

name1 = 'Ravi Verma'

phone1 = '9923849335'

email1 = 'ravi\_verma@gmail.com'

password1 = 'tough@password!!'

* Insert these values in table users.
* Read the data back and display
* Accept name from user, display the details for that user if it exists in table users.

**Create a folder: Int\_Python\_Assignments \Day2\ Q1.py, Q2.py, Q3.py**