**LAB 3 – PYTHON REVIEW – DEVELOPMENT TOOLS AND CLASSES**

Part 1: Python Programming Review

Lab netacad: Cisco DEVNET 1.3.3

Document your findings and important commands.

1. Type(): gives the variable type

String=”e”

Example: type(string) => class’str’

1. f{}: value in string

example: f”The string contains {string}”

1. .2f : decimals

Example: pi = “{:.2f}”.format(num)

1. List: []

Example: testlist = [“one”,”two”,”three”]

1. Del testlist[x] = removes list item at position x
2. Dictionary: {}

Example: Routers: {“R1”:”10.1.1.1”,”R2”:10.2.2.1”}

1. Len() command: number of items in list
2. Input(“enter a value”): asks for input with the prompt enter a value:
3. Print(“test”): print test to the console
4. If else/elif function example with input & print:

age = string(input(’Enter your age:”))

if age >=18:

print(“You are 18 years of age or older”)

elif age >=16:

print(“You are 16 years of age or older”)

else:

print(“You are under 16 years of age”)

1. For loop example: print all items in a list

namelist[“Brecht”,”Rick”,”Gert”]

for name in namelist:

print(name)

1. While loop example: count to 10

a = 10

b = 0

While a>b:

print(b)

b=b+1

1. Open(“test.txt”) opens a file named text.txt

Part 2: Explore Python Development Tools

Lab netacad: Cisco DEVNET 3.1.12

Document your findings and important commands.

Text

Description automatically generated

Interesting:

Pip3 freeze > requirements.txt: > puts output in fileText

Description automatically generated

Interesting :

Pip3 install -r <filename> installs everything in a txt file

Text

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Part 3: Explore Python Classes

Lab netacad: cisco DEVNET 3.4.6

Document your findings and important commands.

Define & call a function:

Def newfunction:

Print(“Function called”)

Newfunction()

Define & call method in a class:

Class Person:

Def age:

Print(“23”)

Def name:

Print(“Brecht”)

Brecht = Person()

Brecht.Age()

Brecht.Name()

A picture containing graphical user interface

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Gives output:



Class with variables:

Text

Description automatically generatedGives output: Text

Description automatically generated

Initiating multiple instances of the location class and call the method:

Text

Description automatically generated

Add these lines, gives output:

Text

Description automatically generated

Text

Description automatically generated

Circle has 2 functions excluding init to store the radius

3 circle instances, 6,11,14 are used in this example

Def Circumference uses the pi variable to calculate the circumference of the circle with the radius provided by self and returns the value

Def printcircumference prints the result