# Command line tools

dir – command to view all directory

cd – Go to the directory where python files exist

than python file\_name.py OR file\_name.py

apm install script – To install a package

apm uninstall script – Uninstall a package

# Numeric Expressions

For power like 2 power 3 = 2\*\*3

type function – Used to tell the type of variable like type(‘Hello’) will print

Type conversion – float(10), int(123), str(1233)

Integer division by default produces a floating point result – 10 / 2 = 5.0

To input any value – num = input(“Who are you ?”) will always return a string

Print(“Welcome”, num) will take the name and print with the text

# - Used for commenting

Boolean value: x = False or True

None value – x = None

is keyword – It checks everything like if x is True

# Conditional Statements

If x>5 :

Print(“This is to use conditioals”)

Indenting after if statement requires 4 empty spaces

elif – else if in python

try/except used to catch unwanted errors like try catch

astr = “Het Buddy”

try:

asttr = int(astr)

except:

asttr = -1

# Functions

def abc():

print(“ABCD”)

Parametric functions –

Def abc(value):

Print(“Value of abc is”, abc)

Abc(“Hi World”)

For return

Def abc:

Return “ADASDASDAsd”

Range – for i in range(0,1000):

Print(i)

# Loops and Iterations

While n > 3:

Print(“ASDAS”)

For I in [10,23,14,56]:

Print(i)

10,23,14,56 – Will prknt this

# More about functions

Optional parameters

def func\_make(a,b,c=None):

print(a+b)

func\_make(2,7)

## Other DS

Tuples -> Immutable – Cannot be changed for ex : - x = (1,’a’,2,’b’)

Lists -> Mutable – Can be changed for ex : - x = [1,’a’,2,’b’]

x.append(3) – In list only

min(),max(),len(x)

[1] \* 3 = [1,1,1]

1 in [1,2,3] will return true

X = “This is a string”

Print(x[0]) – T

Print(x[0,1]) – T

Print(x[2,4]) – is

Print(x[-1]) – g

Print(x[-4:-2]) – ri

Print(x[:3]) – Thi

Print(x[3:]) - s is a string

Dictionaries – x = {1: “Anupansh”, 2: “PPaansh”}

X[1] = “Anupansh”

For name in x:

Print(x) => 1,2

for i in x:

print(x[i]) => Anupansh, PPaansh

For i in x.values():

Print(i) => Anupansh, PPaansh

for i,j in x.items():

print(i)

print(j) will print

1

Anupansh

2

Ppaansh

Unpacking – Converting a list or a tuple value to variables like

X = (1,’ab’,2,’bc’)

A,b,c,d = x

Print(a) = 1

Print(b) = ‘ab’

Print(c) = 2

Print(d) = ‘bc’

# String formatting

dict = {

"name" : "John",

"age" : 24

}

str = " {} is {} years old"

print(str.format(dict["name"],dict["age"]))

Will print – “John is 24 years old”

# Classes

class Person:

name = "Sahibzada Farhan"

email = "sfarhan@gmail.com"

def changeName(self,name):

self.name = name

def changeEmail(self,email):

self.email = email

def printName(self):

print(self.name)

def printEmail(self):

print(self.email)

person = Person()

person.changeName("Total Farhan")

person.printName()

person.changeEmail("tFarhan@gmail.com")

person.printEmail()

This will print Total Farhan

[tFarhan@gmail.com](mailto:tFarhan@gmail.com)

# Map function

def mergeName(fName,lName):

return "{} {}".format(fName,lName)

fName = ["Anupansh" ,"Gourav" ,"Sudhanshu" ]

lName = ["Aggarwal" ,"Yadav" ,"Mishra"]

print(list(map(mergeName,fName,lName)))

This will print ['Anupansh Aggarwal', 'Gourav Yadav', 'Sudhanshu Mishra']

# Lambda

Used to give function a name

function = lambda x : x + 30

print(function(20))

Will print 50

# List Comprehension

Syntax:- newlist = [expression for item in iterable if condition == True]

newList = [x\*x for x in range(0,100) if x % 2 == 0]

print(newList)

Will print square of all the numbers whose % 2 == 0

# Numpy