Day 3 notes

Python functions

1. function parameters which do not have default values are called as compulsory parameters.
2. function parameters which has default value are called as optional parameters.

def f2(x,y=12,z=34): # x is compulsory parameter and y and z are optional parameter

1. Once you assign default value to a parameter the all on the right side should have default parameter

def f1(x=34,y): #error

def f2(a=23,b,c=45) #error

def f3(a,b=12,c=34) #ok

def f3(a=10,b=12,c=34) #ok

1. Every function has 2 scopes global and local, but nested functions has 3 scopes

global, local, nonlocal (parent’s scope)

1. Global variable is accessible inside the function till you do not change its value, if you try to change the value of any variable inside function then it will become local variable
2. To modify value of global variable inside function use global keyword, to modify value of nonlocal variable use keyword nonlocal

def f1():

x=34

print(x)

def f2():

#global x

nonlocal x

x=45

print(x)

print(x)

f2()

print(x)

x=10

print(x)

f1()

print(x)

Build in functions

Number functions

are available math

String functions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | H | I | S |  | I | S |  | S | T | R | I | N | G |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| -14 | -13 | -12 | -11 | -10 | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | -1 |

Print(s[-3:3,-1])

Print(s[1::2])

print(S[-1])

print(s[3:10]) #s is st

print(s[2:]) # 2 nd character to end

print(s[:6]) #start to 5 th index

print(s[2:10:2])

print(s[::-1]) #reverse the string

print(s[0::-1])

|  |  |  |
| --- | --- | --- |
| S1.find(substr,[start,end]) | It will find the position of the first occurrence of the substr if it finds, otherwise it will return -1 |  |
| S1.rfind(substr,[start,end]) | It will find the position of the last occurrence of the substr if it finds, otherwise it will return -1 |  |
| S1.index(substr,[start,end]) | It will find the position of the first occurrence of the substr if it finds, otherwise it throws exception |  |
| S1.rindex(substr,[start,end]) | It will find the position of the last occurrence of the substr if it finds, otherwise it throws exception |  |
| S1.split(delimeter) | It will break the string into parts at delimiter character and it store it in the list |  |
| Delimiter.join(lst) | It will join the words from the list by given delimiter and converts into string |  |
| S1.strip(str) | To remove all occurrences of the given characters in the str from both sides of the string |  |
| S1.lstrip(str) | To remove all occurrences of the given characters in the str from left sides of the string |  |
| S1.rstrip(str) | To remove all occurrences of the given characters in the str from right sides of the string |  |
| S1.upper() | To convert string in to upper case |  |
| S1.lower() | To convert string in to lower case |  |
| S1.isalpha() | To check whether the string contains all alphabets |  |
| S1.isnumeric(), s1.isdecimal(),s1.isdigit() | It will check whether the string contains only digits |  |
| S1.isalnum() | It will check whether the string contains only alphabets or digits |  |

| **String Type** | **Example** | **Python .isdecimal()** | **Python .isdigit()** | **Python .isnumeric()** |
| --- | --- | --- | --- | --- |
| Base 10 Numbers | '0123' | True | True | True |
| Fractions and Superscripts | '⅔', '2²' | False | True | True |
| Roman Numerals | 'ↁ' | False | False | True |