**Python Assignment 1**

1. Create following variables in Python and print the type of each variable and explain if you face any errors
   1. a = 23
   2. var1 = 12.9
   3. var2 = ‘hello’
   4. var3 = “I’m Good”
   5. 5 = ‘python’

Ans : We cannot use number to assign a variable.

1. Write a program to take following user inputs using input() function, print it’s type to stdout and explain if you face any errors
   1. 256
   2. 2 + 3j
   3. Hello World
   4. ‘Hello World’

Ans : C. string should be in single quotes or double quotes

1. Repeat problem (2) using raw\_input() function

Ans : We have only eval(input()) function from python 3.x version

a->int, b ->complex,[ c -> error], d->string

1. Write a program which takes 100, 256, ‘Hello’, ‘World’ inputs using input() function and print the following:
   1. Output of 100 + 256 using print statement

print 100 + 256

356

* 1. Print Hello World using print statement (There is a space between Hello and World) print “Hello world”
  2. Print HelloWorld using print statement (There is no space between Hello and World) print “Helloworld”
  3. Concatenate 100 and ‘Hello’ and explain the output

Cannot concatenate string and integer to make this happen we should convert 100 to string

Print str(100)+”Hello”

1. Repeat problem (4) using raw\_input() function

For both 4th and 5th questions

p = input("a")

q = input("b")

r = input("c")

s = input("d")

print(eval(p)+eval(q))

print(r+" "+s)

print(r+s)

print(p+r)

1. Write a program which accepts user input and then prints whether it is even or odd integer

Ans :

p = eval(input('a'))

if (p%2)==0 :

print ("Even")

else:

print("Odd")

1. Write a program which takes user input and then does following:
   1. If value is greater than 0 then print ‘positive’
   2. If value is less than 0 then print ‘negative’
   3. If value is equal to 0 then print ‘zero’
   4. Else print ‘Error’

Ans :

a = eval(input('p'))

if a>0 :

print ("Positive")

elif a<0:

print("Negative")

elif a==0:

print ("Zero")

else:

print("Error")

1. Write a program to do the following:
   1. Create an empty string and print it to stdout
   2. Create a string variable and pass ‘pseudonymous’ using input()
   3. Print the length of value passed in (b)
   4. Iterate through the string created in (b) and print character and its corresponding index number onto stdout (like p, index is 0 – s, index is 1 etc.,)

Ans:

empty\_str = []

print (str)

var = input('string')

print(len(var))

i = 0

for x in var:

print("index is : "+str(i)+"-"+x )

i = i+1

1. What is slicing and membership in strings. Explain with examples

**Slicing:**

A python slice extracts elements, We take slices on many types in Python. We specify an optional first index, an optional last index, and an optional step.

**Example:**

values = [100,200,300,400,500 ]

# Get elements from second index to third index.

slice = values [1;3]

print(slice)

**output:** [200, 300]

**Member in string:**

Evaluates to true if it finds a variable in the specified sequence and false otherwise.

**Exmaple:**

#1/usr/bin/python

a = 10

b = 20

list = [1, 2, 3, 4, 5];

if ( a in list ):

print "Line 1 - a is available in the given list"

else:

print "Line 1 - a is not available in the given list"

if ( b not in list ):

print "Line 2 - b is not available in the given list"

else:

print "Line 2 - b is available in the given list"

a = 2

if ( a in list ):

print "Line 3 - a is available in the given list"

else:

print "Line 3 - a is not available in the given list"

**output:**

Line 1 - a is not available in the given list

Line 2 - b is not available in the given list

Line 3 - a is available in the given list