G. H. Raisoni College Of Engineering And Management, Wagholi Pune 2021- 2022 Group B :-Assignment no :- 3			
Department	CE [SUMMER 2022 (Online)]		
Term / Section	III/B	Date Of **submission**	08-10-2021
Subject Name /Code	Python for Data Science / UCSP204		
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Group B :→ Experiment No 3 (10)

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Aim :→ Write a python program to search for a string in a heterogeneous array of 7 items by using a user defined function that accepts two arguments.

(I) If string found, return the position of the string

(II) If string not found, add the string to the list.

Note :→ do not use a build in functions / methods.

Theory :→ String →

Python string is the collection of the characters surrounded by single quotes, double quotes or triple quotes. it is encoded by ASCII or unicode characters

Syntax :→ Str = " Statement "

Accessing values in strings :→

Python does not support characters type it is taken as string of length one.

Ex

```
var1 = ' Hello World'
var2 = " Python"
print "var1[0] :", var1
print var2[1:5]; var2
```

Output

```
var1[0] : H
var2[1:5] : 'Ython
```

- **Heterogeneous list :-**

List in a python is a collection of heterogeneous data that means we can have different types of data elements inside any list. we can store int, float, str, tuples, lists & dictionaries but commonly used to store collection of homogeneous objects.

There are 3 methods to split Heterogeneous lists.
(1) using type()
(2) ininstance()
(3) using defaultdict().

- **User defined Function :-** Function ~~that~~ readily comes with python are called ~~user defined~~ build in Function.

The Function that we define are called as user defined Functions.
If we use others function in terms of library then it is called as Library Function.

```
Syntax :
        def My_Function():
            print("This is the body")
```

- **Advantages :-**

(1) decompse a large program into small segments

(2) If repeted code occurs in the program Function can be used to include those code and execute when needed by calling that function

(3) large projects can be divided into The workload.

Group B 03 Assignment program code

```
print("****************************************")
print("SCOB77_Pratham pitty_Group B Assignment 3")
print("****************************************\n")
def list1(a):
 return (list1)
a = ['department', 'pincode', 412207, 123.24,'name', 10, 11.11]

b = input("Enter the string :")
if b in a:
 print (" The string is in the list1 in the position: ", a.index(b)+1)
else:
 print ("String is not in list1")
 b= (a) +[b]
 print ("The search string is added to the list1: \n",b)
```

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Run Code

In [5]:
```
print("*****************************************")
print("SCOB77_Pratham pitty_Group B Assignment 3")
print("*****************************************\n")
def list1(a):
 return (list1)
a = ['department', 'pincode', 412207, 123.24,'name', 10, 11.11]

b = input("Enter the string :")
if b in a:
 print (" The string is in the list1 in the position: ", a.index(b)+1)
else:
 print ("String is not in list1")
 b= (a) +[b]
 print ("The search string is added to the list1: \n",b)
```

```
*****************************************
SCOB77_Pratham pitty_Group B Assignment 3
*****************************************

Enter the string :pincode
 The string is in the list1 in the position:  2
```

In [6]:
```
print("*****************************************")
print("SCOB77_Pratham pitty_Group B Assignment 3")
print("*****************************************\n")
def list1(a):
 return (list1)
a = ['department', 'pincode', 412207, 123.24,'name', 10, 11.11]

b = input("Enter the string :")
if b in a:
 print (" The string is in the list1 in the position: ", a.index(b)+1)
else:
 print ("String is not in list1")
 b= (a) +[b]
 print ("The search string is added to the list1: \n",b)
```

```
*****************************************
SCOB77_Pratham pitty_Group B Assignment 3
*****************************************

Enter the string :ram
String is not in list1
The search string is added to the list1:
 ['department', 'pincode', 412207, 123.24, 'name', 10, 11.11, 'ram']
```