

# Ch01\_Introduction- String Processing

September 5, 2018

```
In [3]: var1 = 'Welcome to Dubai'
        var2 = "Python Programming"

        print ("var1[0]:", var1[0])
        print ("var2[1:5]:", var2[1:5])
```

```
var1[0]: W
var2[1:5]: ytho
```

```
In [5]: st1="Hello"
        st2=' World'
        fullst=st1 + st2
        print (fullst)
```

```
Hello World
```

```
In [11]: # looking inside strings
        fruit = 'banana'
        letter= fruit[1]
        print (letter)

        index=3
        w = fruit[index-1]

        print (w)
        print (len(fruit))
```

```
a
n
6
```

```
In [14]: # Convert string to int
        str3 = '123'
        str3= int (str3)+1
        print (str3)
```

```
In [15]: # Read and convert data
        name=input('Enter your name: ')
        age=input('Enter your age: ')
        age= int(age) + 1

        print ("Name:%s"% name ,"\t Age:%d"% age)
```

```
Enter your name: Ossama
Enter your age: 41
Name:Ossama      Age:42
```

```
In [30]: # Looking through string
        fruit = 'banana'
        index=0
        while index< len(fruit):
            letter = fruit [index]
            print (index, letter )
            index=index+1
```

```
0 b
1 a
2 n
3 a
4 n
5 a
```

```
In [31]: print ("\n Implementing iteration with continue")
        while True:
            line = input('Enter your data>')
            if line[0]=='#':
                continue
            if line == 'done':
                break
            print (line )
        print ('End!')
```

```
Implementing iteration with continue
Enter your data>Higher Colleges of Technology
Higher Colleges of Technology
Enter your data>#
Enter your data>done
End!
```

```
In [32]: print ("\nPrinting in reverse order")
        index=len(fruit)-1
        while index>=0 :
            letter = fruit [index]
            print (index, letter )
            index=index-1
```

Printing in reverse order

```
5 a
4 n
3 a
2 n
1 a
0 b
```

```
In [33]: Country='Egypt'
        for letter in Country:
            print (letter)
```

```
E
g
y
p
t
```

```
In [2]: # Looking and counting
        word='banana'
        count=0
        for letter in word:
            if letter == 'a':
                count +=1
        print ("Number of a in ", word, "is :", count )
```

Number of a in banana is : 3

```
In [3]: # Slicing Strings
        s="Welcome to Higher Colleges of Technology"
        print (s[0:4])
        print (s[6:7])
        print (s[6:20])
        print (s[:12])
        print (s[2:])
        print (s [:])
        print (s)
```

```
Welc
e
e to Higher Co
Welcome to H
lcome to Higher Colleges of Technology
Welcome to Higher Colleges of Technology
Welcome to Higher Colleges of Technology
```

```
In [43]: var1 = ' Higher Colleges of Technology '
        var2='College'
        var3='g'
```

```
print ( var2 in var1)
print ( var2 not in var1)
```

```
True
False
```

```
In [29]: var1 = ' Higher Colleges of Technology '
        var2='College'
        var3='g'
```

```
print (var1.upper())
print (var1.lower())
print ('WELCOME TO'.lower())
print (len(var1))
print (var1.count(var3, 2, 29) )  # find how many g letters in var1
print ( var2.count(var3) )
```

```
HIGHER COLLEGES OF TECHNOLOGY
higher colleges of technology
welcome to
31
3
1
```

```
In [33]: print (var1.endswith('r'))
        print (var1.startswith('O'))
        print (var1.find('h', 0, 29))
```

```
print (var1.lstrip())  # It removes all leading whitespace of a string in var1
print (var1.rstrip()) # It removes all trailing whitespace of a string in var1
print (var1.strip())
print ('\n')
print (var1.replace('Colleges', 'University'))
```



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[illegible]

# 1 EXERCISES AND ANSWERS

```
In [47]: var1 = 'HCT'
          index=0
          while index< len(var1):
              letter = var1[index]
              print (letter)
              index+=1
```

H  
C  
T

```
In [48]: var1 = 'HCT'
          index=0
          while len(var1)> index:
              letter = var1[index]
              print (letter)
              index+=1
```

H  
C  
T

```
In [54]: strvar1 = 'X-DSPAM-Confidence: 0.8475'
         post = strvar1.find(':')
         numer=float(strvar1[post+1:])
         print (numer )
```

0.8475