strings

July 8, 2017

```
In [1]: s="python program"
        print len(s)

14


In [2]: s[0]

Out[2]: 'p'

In [3]: s[1]

Out[3]: 'y'

In [4]: s[2]

Out[4]: 't'

In [5]: s

Out[5]: 'python program'

In [6]: s[13]

Out[6]: 'm'

In [7]: s=raw_input("Enter a value:")
        print s[-1]

Enter a value:python
n


In [8]: s="python program"
        print len(s)

14


In [9]: s[13]
```

```
Out[9]: 'm'

In [10]: s[14]


        ------------------------------------------------------------------------

        IndexError                               Traceback (most recent call last)

        <ipython-input-10-057690f8ca17> in <module>()
    ----> 1 s[14]


        IndexError: string index out of range

In [11]: len(s)

Out[11]: 14

In [12]: a=10
         b=20
         a>b

Out[12]: False

In [13]: a>=b

Out[13]: False

In [14]: a<=b

Out[14]: True

In [15]: a=True

In [16]: b=False

In [17]: type(a)

Out[17]: bool

In [18]: type(b)

Out[18]: bool

In [19]: a=None

In [20]: type(a)

Out[20]: NoneType
```

```
In [21]: a>b

Out[21]: False

In [22]: bool(a>b)

Out[22]: False

In [23]: bool(10<20)

Out[23]: True

In [24]: # == > < is in not in not is
         s

Out[24]: 'python program'

In [25]: 'python' in s

Out[25]: True

In [26]: 'p' in s

Out[26]: True

In [27]: # and or !=

In [28]: a=10
         b=20
         c=30
         a<b and b<c

Out[28]: True

In [29]: a<b or b>c

Out[29]: True

In [30]: a>b and b<c

Out[30]: False

In [31]: a<b or b>c

Out[31]: True

In [32]: # bitwise operators
         a=10
         b=20
         print a&b
```

```
0


In [33]: print a|b

30


In [36]: print "{0:b}".format(a)
         print "{0:b}".format(b)

1010
10100


In [37]: s

Out[37]: 'python program'

In [38]: s="python program"
         ind=3
         print "value of the index:",ind,s[ind]
         print "index not present"

value of the index: 3 h
index not present


In [39]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
         if string_length<ind:
             print "value of the index:",ind,s[ind]
         else:
             print "index not present"

         print "other staements in program."
         print "program ending statements"

program starting statements
index not present
other staements in program.
program ending statements


In [41]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
```

```python
    if string_length>ind:
        print "if block started"
        print "value of the index:%s is %s"%(ind,s[ind])
        print "if block ended"
    else:
        print "else block started"
        print "index not present"
        print "else block ended."

    print "other staements in program."
    print "program ending statements"
```

```
program starting statements
if block started
value of the index:3 is h
if block ended
other staements in program.
program ending statements
```

```python
In [42]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
         if string_length>ind:
             print "if block started"
             print "value of the index:%s is %s"%(ind,s[ind])
             print "if block ended"

         print "other staements in program."
         print "program ending statements"
```

```
program starting statements
if block started
value of the index:3 is h
if block ended
other staements in program.
program ending statements
```

```python
In [43]: print "program starting statements"
         s="python program"
         ind=15
         string_length=len(s)
         if string_length>ind:
             print "if block started"
             print "value of the index:%s is %s"%(ind,s[ind])
             print "if block ended"
```

```python
        print "other staements in program."
        print "program ending statements"
program starting statements
other staements in program.
program ending statements


In [44]: print "program starting statements"
        s="python program"
        ind=3
        string_length=len(s)
        if string_length>ind:
         print "if block started"
         print "value of the index:%s is %s"%(ind,s[ind])
         print "if block ended"
        else:
            print "else block started"
            print "index not present"
            print "else block ended."

        print "other staements in program."
        print "program ending statements"
program starting statements
if block started
value of the index:3 is h
if block ended
other staements in program.
program ending statements


In [45]: print "program starting statements"
        s="python program"
        ind=3
        string_length=len(s)
        if string_length>ind:
            print "if block started"
            print "value of the index:%s is %s"%(ind,s[ind])
            print "if block ended"
        else:
            print "else block started"
            print "index not present"
            print "else block ended."

        print "other staements in program."
        print "program ending statements"
program starting statements
if block started
```

```
value of the index:3 is h
if block ended
other staements in program.
program ending statements
```

In [46]: `print` "program starting statements"
        s="python program"
        ind=3
        string_length=`len`(s)
        `if` string_length>ind:
            `print` "if block started"
            `print` "value of the index:**%s** is **%s**"%(ind,s[ind])
         `print` "if block ended"
        `else`:
            `print` "else block started"
            `print` "index not present"
            `print` "else block ended."

         `print` "other staements in program."
         `print` "program ending statements"

          File "<ipython-input-46-2843dc2bce0e>", line 8
        print "if block ended"
                           ^
    IndentationError: unindent does not match any outer indentation level

In [47]: `print` "program starting statements"
        s="python program"
        ind=3
        string_length=`len`(s)
        `if` string_length>ind:
         `print` "if block started"
            `print` "value of the index:**%s** is **%s**"%(ind,s[ind])
            `print` "if block ended"
        `else`:
            `print` "else block started"
            `print` "index not present"
            `print` "else block ended."

         `print` "other staements in program."
         `print` "program ending statements"

          File "<ipython-input-47-164e9a853eb5>", line 7
        print "value of the index:%s is %s"%(ind,s[ind])

```
        ^
    IndentationError: unexpected indent


In [48]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
         if string_length>ind:
             print "if block started"
             print "value of the index:%s is %s"%(ind,s[ind])
         print "if block ended"
         else:
             print "else block started"
             print "index not present"
             print "else block ended."

         print "other staements in program."
         print "program ending statements"


           File "<ipython-input-48-ac230e3b4277>", line 9
         else:
             ^
     SyntaxError: invalid syntax



In [49]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
             if string_length>ind:
                 print "if block started"
                 print "value of the index:%s is %s"%(ind,s[ind])
                 print "if block ended"
             else:
                 print "else block started"
                 print "index not present"
                 print "else block ended."

         print "other staements in program."
         print "program ending statements"


           File "<ipython-input-49-005c6606d902>", line 5
         if string_length>ind:
             ^
```

8

```
        IndentationError: unexpected indent


In [50]: print "program starting statements"
         s="python program"
         ind=3
         string_length=len(s)
         if string_length>ind:
                 print "if block started"
                 print "value of the index:%s is %s"%(ind,s[ind])
                 print "if block ended"
         else:
                 print "else block started"
                 print "index not present"
                 print "else block ended."

         print "other staements in program."
         print "program ending statements"

program starting statements
if block started
value of the index:3 is h
if block ended
other staements in program.
program ending statements


In [51]: """
         Mobiles available in store:
         1.Android
         2.Ios
         3.Windows
         """
         print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"

Mobiles available in store:
1.Android
2.IOS
3.wondows


In [52]: """
         Mobiles available in store:
         1.Android
         2.Ios
         3.Windows

         """
```

```python
        print "starting staeemnts"
        print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
        opt=raw_input("Enter an option:")
        if opt==1:
            print "GOTO 1st FLOOR"
        print "other statements in program."
        print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:1
other statements in program.
program ended.
```

```
In [53]: 1=="1"

Out[53]: False

In [54]: """
        Mobiles available in store:
        1.Android
        2.Ios
        3.Windows

        """
        print "starting staeemnts"
        print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
        opt=raw_input("Enter an option:")
        if opt=="1":
            print "GOTO 1st FLOOR"
        print "other statements in program."
        print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:1
GOTO 1st FLOOR
other statements in program.
program ended.
```

```
In [55]: 12>20
```

```
Out[55]: False

In [56]: "2"<12

Out[56]: False

In [57]: "2">12

Out[57]: True

In [58]: "1">10000000

Out[58]: True

In [59]: "2">"10000"

Out[59]: True

In [60]: "2"<"10000"

Out[60]: False

In [61]: # bat ant apple
         # ant apple bat
         # "2" "13" "10000"
         # 10000 13 2
         print "bat" > "apple"

True


In [62]: """
         Mobiles available in store:
         1.Android
         2.Ios
         3.Windows

         """
         print "starting staeemnts"
         print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
         opt=raw_input("Enter an option:")
         if opt=="1":
             print "GOTO 1st FLOOR"
         if opt=="2":
             print "GOTO 2nd FLOOR"
         if opt=="3":
             print "GOTO 3rd FLOOR"
         print "other statements in program."
         print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:1
GOTO 1st FLOOR
other statements in program.
program ended.
```

In [63]: ```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
    print "GOTO 1st FLOOR"
if opt=="2":
    print "GOTO 2nd FLOOR"
if opt=="3":
    print "GOTO 3rd FLOOR"
print "other statements in program."
print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:2
GOTO 2nd FLOOR
other statements in program.
program ended.
```

In [64]: ```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
```

```python
        print "starting staeemnts"
        print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
        opt=raw_input("Enter an option:")
        if opt=="1":
            print "GOTO 1st FLOOR"
        if opt=="2":
            print "GOTO 2nd FLOOR"
        if opt=="3":
            print "GOTO 3rd FLOOR"
        print "other statements in program."
        print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:3
GOTO 3rd FLOOR
other statements in program.
program ended.
```

```python
In [65]: """
        Mobiles available in store:
        1.Android
        2.Ios
        3.Windows

        """
        print "starting staeemnts"
        print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
        opt=raw_input("Enter an option:")
        if opt=="1":
            print "GOTO 1st FLOOR"
        if opt=="2":
            print "GOTO 2nd FLOOR"
        if opt=="3":
            print "GOTO 3rd FLOOR"
        print "other statements in program."
        print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:4
```

```
other statements in program.
program ended.
```

In [66]:
```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
    print "GOTO 1st FLOOR"
if opt=="2":
    print "GOTO 2nd FLOOR"
if opt=="3":
    print "GOTO 3rd FLOOR"
else:
    print "wrong option."
print "other statements in program."
print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:4
wrong option.
other statements in program.
program ended.
```

In [67]:
```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
    print "GOTO 1st FLOOR"
```

```python
    if opt=="2":
        print "GOTO 2nd FLOOR"
    if opt=="3":
        print "GOTO 3rd FLOOR"
    else:
        print "wrong option."
    print "other statements in program."
    print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:3
GOTO 3rd FLOOR
other statements in program.
program ended.
```

In [68]:
```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
    print "GOTO 1st FLOOR"
if opt=="2":
    print "GOTO 2nd FLOOR"
if opt=="3":
    print "GOTO 3rd FLOOR"
else:
    print "wrong option."
print "other statements in program."
print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:2
GOTO 2nd FLOOR
```

```
wrong option.
other statements in program.
program ended.
```

In [69]:
```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
    print "GOTO 1st FLOOR"
elif opt=="2":
    print "GOTO 2nd FLOOR"
elif opt=="3":
    print "GOTO 3rd FLOOR"
else:
    print "wrong option."
print "other statements in program."
print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:1
GOTO 1st FLOOR
other statements in program.
program ended.
```

In [70]:
```python
"""
Mobiles available in store:
1.Android
2.Ios
3.Windows

"""
print "starting staeemnts"
print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
opt=raw_input("Enter an option:")
if opt=="1":
```

```python
        print "GOTO 1st FLOOR"
    elif opt=="2":
        print "GOTO 2nd FLOOR"
    elif opt=="3":
        print "GOTO 3rd FLOOR"
    else:
        print "wrong option."
    print "other statements in program."
    print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:2
GOTO 2nd FLOOR
other statements in program.
program ended.
```

```python
In [71]: """
        Mobiles available in store:
        1.Android
        2.Ios
        3.Windows

        """
        print "starting staeemnts"
        print "Mobiles available in store:\n1.Android\n2.IOS\n3.wondows"
        opt=raw_input("Enter an option:")
        if opt=="1":
            print "GOTO 1st FLOOR"
        elif opt=="2":
            print "GOTO 2nd FLOOR"
        elif opt=="3":
            print "GOTO 3rd FLOOR"
        else:
            print "wrong option."
        print "other statements in program."
        print "program ended."
```

```
starting staeemnts
Mobiles available in store:
1.Android
2.IOS
3.wondows
Enter an option:4
```

```
wrong option.
other statements in program.
program ended.
```

In [ ]:   # take the substring from the user and check whether it is ther in actual s
          # number: check even or odd
          # age: check the person eligible for voting shystem.
          # take age, height, weight cal BOM. take decision for healthy state.
          # take number of people. number of seats for a bus. Howmany buses required.