16-17th Task 1 Practise

In [3]:
```
#this is the first comment
spam = 1 #this is the second comment
text = "#this is not a comment as it is enclosed in double quotations"
text
```

Out[3]:
```
'#this is not a comment as it is enclosed in double quotations'
```

In [9]:
```
#NUMBERS
2+2
```

Out[9]:
```
4
```

In [7]:
```
50*5-6
```

Out[7]:
```
244
```

In [8]:
```
50*5-6/4
```

Out[8]:
```
248.5
```

In [10]:
```
8/5 #divison always returns a floating point no.
```

Out[10]:
```
1.6
```

In [11]:
```
17 // 3 #floor divison
```

Out[11]:
```
5
```

In [12]:
```
17 % 3 #returns remainder of div
```

Out[12]:
```
2
```

In [13]:
```
5 * 3 + 2 #floored * divisor + remainder
```

Out[13]:
```
17
```

In [14]:
```
width = 69
height = 96
width * height
```

Out[14]:
```
6624
```

In [16]:
```
5 * 3.7 + 1
```

Out[16]:
```
19.5
```

In [17]:
```
5 * _
```

Out[17]:
```
97.5
```

In [22]:
```
price = 100.50
tax = 12.5/100
price * tax
```

Out[22]: 12.5625

In [24]:
```
price + _
```

Out[24]: 113.0625

In [25]:
```
round(_,2)
```

Out[25]: 113.06

In [26]:
```
#TEXT
'spam eggs' #single qoutes
```

Out[26]: 'spam eggs'

In [27]:
```
"Paris rabbit got your back :)! Yay!" #double quotes
```

Out[27]: 'Paris rabbit got your back :)! Yay!'

In [28]:
```
'1975' #no. can aslo be included in qoutes
```

Out[28]: '1975'

In [29]:
```
'doesn\'t' # use \' to escape the single quote
```

Out[29]: "doesn't"

In [30]:
```
"doesn't" # ...or use double quotes instead
```

Out[30]: "doesn't"

In [33]:
```
'Yes," they said.'
```

Out[33]: 'Yes," they said.'

In [34]:
```
"\"Yes, \" they said."
```

Out[34]: '"Yes, " they said.'

In [35]:
```
'"Isn\'t," they said.'
```

Out[35]: '"Isn\'t," they said.'

In [40]:
```
S = 'First line.\n Second line.' # \n means newline
print(S)
```

```
First line.
 Second line.
```

In [1]:
```
print('C:\some\name') #just for checking purpose if we print without 'r'
```

```
C:\some
ame
```

```
<>:1: SyntaxWarning: invalid escape sequence '\s'
<>:1: SyntaxWarning: invalid escape sequence '\s'
C:\Users\Affan\AppData\Local\Temp\ipykernel_6872\729558793.py:1: SyntaxWarning: i
nvalid escape sequence '\s'
  print('C:\some\name') #just for checking purpose if we print without 'r'
```

In [42]:
```
print(r'C:\some\name')
```

```
C:\some\name
```

In [45]:
```
print("""
...
Usage: thingy [OPTIONS]
-h                        DISPLAY THIS USAGE MESSAGE
-H hostname                HOSTNAME TO CONNECT TO
...
""")
```

```
Usage: thingy [OPTIONS]
-h                        DISPLAY THIS USAGE MESSAGE
-H hostname                HOSTNAME TO CONNECT TO
```

In [47]:
```
3 * 'un' + 'ranium'
```

Out[47]: 'unununranium'

In [49]:
```
text = ('Put several strings within parentheses')
text
```

Out[49]: 'Put several strings within parentheses'

In [51]:
```
word = 'Python'
word[0]
```

Out[51]: 'P'

In [52]:
```
word[2]
```

Out[52]: 't'

In [53]:
```
word[10] #as there is no value at 10th index thats why the error has come
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
Cell In[53], line 1
----> 1 word[10]

IndexError: string index out of range
```

In [54]:
```
word[-1]
```

Out[54]: 'n'

In [55]:
```
word[-6]
```

Out[55]: 'P'

In [56]:
```
word[0:2]
```

Out[56]: 'Py'

In [57]:
```
word[3:6]
```

Out[57]: 'hon'

In [58]:
```
word[:3]
```

Out[58]: 'Pyt'

In [59]:
```
word[4:]
```

Out[59]: 'on'

In [60]:
```
word[:4] + word [4:] #Note how the start is always included, and the end always
```

Out[60]: 'Python'

In [61]:
```
word[42] #out of range
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
Cell In[61], line 1
----> 1 word[42]

IndexError: string index out of range
```

In [62]:
```
word[4:42] #within range to out of range
```

Out[62]: 'on'

In [63]:
```
word[42:]
```

Out[63]: ''

In [64]:
```
word[0]="J"
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[64], line 1
----> 1 word[0]="J"

TypeError: 'str' object does not support item assignment
```

In [67]:
```
'J' + word[1:]
```

Out[67]: 'Jython'

In [68]:
```
s = 'supercalifragilisticexpialidocious'
len(s)
```

Out[68]: 34

In [69]:
```
word[:2] + 'py'
```

Out[69]: 'Pypy'

In [1]:
```
#LIST
squares = [1, 4, 9, 16, 25]
squares
```

Out[1]: [1, 4, 9, 16, 25]

In [2]:
```
squares[0]
```

Out[2]: 1

In [3]:
```
squares[-1]
```

Out[3]: 25

In [4]:
```
squares[:-3]
```

Out[4]: [1, 4]

In [5]:
```
squares + [2, 5, 10, 17, 26]
```

Out[5]: [1, 4, 9, 16, 25, 2, 5, 10, 17, 26]

In [6]:
```
cubes = [1, 8, 27, 65, 125]
4 **3
```

Out[6]: 64

In [7]:
```
cubes[3] = _
cubes
```

Out[7]: [1, 8, 27, 64, 125]

In [10]:
```
cubes.append(216)
cubes
```

Out[10]: [1, 8, 27, 64, 125, 216]

In [11]:
```
cubes.append(7 **3)
cubes
```

Out[11]: [1, 8, 27, 64, 125, 216, 343]

In [12]:
```
rgb= ["Red", "Green", "Blue"]
rgba=rgb
id(rgb) == id(rgba)
# they reference the same object
rgba.append("Alph")
rgb
```

Out[12]: ['Red', 'Green', 'Blue', 'Alph']

In [13]:
```
correct_rgba = rgba[:]
correct_rgba [-1] = "Alpha"
correct_rgba
```

Out[13]:
```
['Red', 'Green', 'Blue', 'Alpha']
```

In [14]:
```
rgba
```

Out[14]:
```
['Red', 'Green', 'Blue', 'Alph']
```

In [15]:
```
letters = [ 'a','b','c','d','e','f','g']
letters
```

Out[15]:
```
['a', 'b', 'c', 'd', 'e', 'f', 'g']
```

In [16]:
```
letters[2:5]=['C','D','E'] #replace
letters
```

Out[16]:
```
['a', 'b', 'C', 'D', 'E', 'f', 'g']
```

In [17]:
```
letters[2:5] = [] #remove
letters
```

Out[17]:
```
['a', 'b', 'f', 'g']
```

In [18]:
```
letters[:]=[]
letters #clear
```

Out[18]:
```
[]
```

In [19]:
```
letters = [ 'a','b','c','d']
len(letters)
```

Out[19]:
```
4
```

In [21]:
```
a= [ 'a','b','c']
n = [1,2,3]
x=[a,n] #storing two list in one list
x
```

Out[21]:
```
[['a', 'b', 'c'], [1, 2, 3]]
```

In [22]:
```
x[0][1]
```

Out[22]:
```
'b'
```

In [23]:
```
x[1][2]
```

Out[23]:
```
3
```

In [24]:
```
#FIRST STEP TOWARDS PROGRAMMING
#Fibonacci Series
a, b = 0, 1
while a<10:
    print(a)
    a,b = b, a+b
```

```
0
1
1
2
3
5
8
```

In [25]:
```
i = 256 ** 2
print('The value of i is', i)
```

```
The value of i is 65536
```

In [27]:
```
#if you want the fibonacci series o/p to be in the same line then

a, b = 0, 1
while a<1000:
    print(a, end=',')
    a,b = b, a+b
```

```
0,1,1,2,3,5,8,13,21,34,55,89,144,233,377,610,987,
```

In [ ]:
```

```