INFO-5717-Assignment-One-CodeQuestion 1 (The program for question 1 blew)

In [3]:
```
#The code for Question 1-(1)
'And now for something completely different'
```
Out[3]: 'And now for something completely different'

In [9]:
```
#The code for Question 1-(2)
n=17
pi=3.1415926535897932

n + 25
```
Out[9]: 42

In [42]:
```
#The code for Question 1-(3)
n=17
print(n)
```
```
17
```

In [11]:
```
#The code for Question 1-(4)
miles=26.2
miles*1.61
```
Out[11]: 42.182

In [12]:
```
#The code for Question 1-(5)
miles = 26.2
print(miles * 1.61)
```
```
42.182
```

In [13]:
```
#The code for Question 1-(6)
x = 5
x + 1
```
Out[13]: 6

In [18]:
```
#The code for Question 1-(7)
first = 'throat'
>>> second = 'warbler'
>>> first + second
```
Out[18]: 'throatwarbler'

In [26]:
```
#The code for Question 1-(8)
int('32')
```
Out[26]: 32

In [27]:
```
#The code for Question 1-(9)
int('Hello')
```
```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-27-d11ecb3b94b4> in <module>
----> 1 int('Hello')

ValueError: invalid literal for int() with base 10: 'Hello'
```

Chapter 3

In [28]:
```
#The code for Question 1-(10)
int(3.99999)
```
Out[28]: 3

In [29]:
```
#The code for Question 1-(11)
int(-2.3)
```
Out[29]: -2

In [30]:
```
#The code for Question 1-(12)
float(32)
```
Out[30]: 32.0

In [31]:
```
#The code for Question 1-(13)
float('3.14159')
```
Out[31]: 3.14159

In [34]:
```
#The code for Question 1-(14)
str (32)
```
Out[34]: '32'

In [35]:
```
#The code for Question 1-(15)
str(3.14159)
```
Out[35]: '3.14159'

In [53]:
```
#The code for Question 1-(16)
>>> decibels = 10 * math.log10(ratio)
>>> radians = 0.7
>>> height = math.sin(radians)
>>> degrees = 45
>>> radians = degrees / 180.0 * math.pi
>>> math.sin(radians)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-53-32345924516a> in <module>
----> 1 decibels = 10 * math.log10(ratio)
      2 radians = 0.7
      3 height = math.sin(radians)
      4 degrees = 45
      5 radians = degrees / 180.0 * math.pi

NameError: name 'math' is not defined
```

In [54]:
```
#The code for Question 1-(17)
>>> math.sqrt(2) / 2.0
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-54-afdbfbe3e5a6> in <module>
----> 1 math.sqrt(2) / 2.0

NameError: name 'math' is not defined
```

In [59]:
```
#The code for Question 1-(18)
minutes = hours * 60
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-59-d5a8cb978558> in <module>
----> 1 minutes = hours * 60

NameError: name 'hours' is not defined
```

In [60]:
```
 #The code for Question 1-(19)
   hours * 60 = minutes
```
```
  File "<ipython-input-60-1d02e1092509>", line 1
    hours * 60 = minutes
                          ^
SyntaxError: can't assign to operator
```

In [70]:
```
#The code for Question 1-(20)
>>> print_lyrics():
    print("I'm a lumberjack, and I'm okay.")
    print("I sleep all night and I work all day.")
```
```
  File "<ipython-input-70-113b7c5c379a>", line 1
    print_lyrics():
                   ^
SyntaxError: invalid syntax
```

In [73]:
```
#The code for Question 1-(21)
>>>print_twice('Spam')
```
```
  File "<ipython-input-73-cd7c4db357d8>", line 1
    >>>print_twice('Spam')
     ^
SyntaxError: invalid syntax
```

In [87]:
```
#The code for Question 1-(22)
>>>print_twice('Spam'*4)
```
```
  File "<ipython-input-87-a29e8bc55a01>", line 1
    >>>print_twice('Spam'*4)
     ^
SyntaxError: invalid syntax
```

In [88]:
```
#The code for Question 1-(23)
>>>print_twice(42)
```
```
  File "<ipython-input-88-cfd9f09af927>", line 1
    >>>print_twice(42)
     ^
SyntaxError: invalid syntax
```

In [43]:
```
 #The code for Question 1-(24)
>>>print_twice(math.pi)
```
```
  File "<ipython-input-43-29a173c68d35>", line 2
    >>>print_twice(math.pi)
     ^
SyntaxError: invalid syntax
```

In [89]:
```
#The code for Question 1-(25)
michael = 'Eric, the half a bee.'
>>> print_twice(michael)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-89-21b5f836ce75> in <module>
      1 michael = 'Eric, the half a bee.'
----> 2 print_twice(michael)

NameError: name 'print_twice' is not defined
```

In [90]:
```
#The code for Question 1-(26)
>>> line1 = 'Bing tiddle '
>>> line2 = 'tiddle bang.'
>>> cat_twice(line1, line2)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-90-0264bd41bbbd> in <module>
      1 line1 = 'Bing tiddle '
      2 line2 = 'tiddle bang.'
----> 3 cat_twice("line1, line2")

NameError: name 'cat_twice' is not defined
```

In [91]:
```
#The code for Question 1-(27)
print('cat')
```
```
cat
```

In [94]:
```
#The code for Question 1-(28)
x = math.cos(radians)
golden = (math.sqrt(5) + 1) / 2

>>> math.sqrt(5)
```
```
  File "<ipython-input-94-fa85ed05d717>", line 4
    >>> math.sqrt(5)
     ^
SyntaxError: invalid syntax
```

In [98]:
```
#The code for Question 1-(29)
result = print_twice('Bing')
print(result)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-98-cee9f6e28709> in <module>
----> 1 result = print_twice('Bing')
      2 print(result)

NameError: name 'print_twice' is not defined
```

Chapter 4

In [102]:
```
#The code for Question 1-(30)
import turtle
bob = turtle.Turtle()
print(bob)
```
```
<turtle.Turtle object at 0x00000219EC915DD8>
```

Chapter 5

In [103]:
```
#The code for Question 1-(31)
minutes = 105
>>> minutes / 60
```
Out[103]: 1.75

In [104]:
```
#The code for Question 1-(32)
minutes = 105
>>> hours = minutes // 60
>>> hours
```
Out[104]: 1

In [105]:
```
#The code for Question 1-(33)
remainder = minutes - hours * 60
>>> remainder
```
Out[105]: 45

In [106]:
```
#The code for Question 1-(34)
remainder = minutes % 60
>>> remainder
```
Out[106]: 45

In [107]:
```
#The code for Question 1-(35)
5 == 5
```
Out[107]: True

In [109]:
```
#The code for Question 1-(36)
5 == 6
```
Out[109]: False

In [110]:
```
#The code for Question 1-(37)
type(True)
```
Out[110]: bool

In [111]:
```
#The code for Question 1-(38)
type(False)
```
Out[111]: bool

In [3]:
```
#The code for Question 1-(39)
42 and True
```
Out[3]: True

In [5]:
```
#The code for Question 1-(40)
text = input()
>>> What are you waiting for?
>>> text
```
```
  File "<ipython-input-5-13f351328d95>", line 2
    What are you waiting for?
               ^
SyntaxError: invalid syntax
```

In [6]:
```
#The code for Question 1-(41)
>>> name = input('What...is your name?\n')
What...is your name? Arthur, King of the Britons!
>>> name
```
```
  File "<ipython-input-6-df52e9bc9cle>", line 2
    What...is your name? Arthur, King of the Britons!
           ^
SyntaxError: invalid syntax
```

In [7]:
```
#The code for Question 1-(42)
>>> prompt = 'What...is the airspeed velocity of an unladen swallow?\n'
>>> speed = input(prompt) What...is the airspeed velocity of an unladen swallow?
42
>>> int(speed)
```
```
  File "<ipython-input-7-672d477bcd82>", line 2
    speed = input(prompt) What...is the airspeed velocity of an unladen swallow?
                              ^
SyntaxError: invalid syntax
```

In [8]:
```
#The code for Question 1-(43)
int==42
>>>int
```
```
  File "<ipython-input-8-6075fdeb4f15>", line 2
    >>>int
     ^
SyntaxError: invalid syntax
```

In [9]:
```
#The code for Question 1-(44)
>>> speed = input(prompt)
What...is the airspeed velocity of an unladen swallow? What do you mean, an African or a European swallow?
>>> int(speed)
```
```
  File "<ipython-input-9-00f42f74ad6c>", line 2
    What...is the airspeed velocity of an unladen swallow? What do you mean, an African or a European swallow?
           ^
SyntaxError: invalid syntax
```

In [12]:
```
#The code for Question 1-(45)
>>> x = 5
>>> y = 6
 File "<stdin>", line 1
    y = 6
```
```
  File "<ipython-input-12-9d298790e64e>", line 3
    File "<stdin>", line 1
    ^
IndentationError: unexpected indent
```

Chapter 6

In [14]:
```
#The code for Question 1-(46)
>>> print(absolute_value(0))
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-14-d41c4a8c8ba5> in <module>
----> 1 print(absolute_value(0))

NameError: name 'absolute_value' is not defined
```

In [15]:
```
#The code for Question 1-(47)
>>> distance(1, 2, 4, 6)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-15-6a1d6538ea59> in <module>
----> 1 distance(1, 2, 4, 6)

NameError: name 'distance' is not defined
```

In [16]:
```
#The code for Question 1-(48)
>>> is_divisible(6, 4)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-16-036688ead8d9> in <module>
----> 1 is_divisible(6, 4)

NameError: name 'is_divisible' is not defined
```

In [17]:
```
#The code for Question 1-(49)
>>> is_divisible(6, 3)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-17-df8f243cb052> in <module>
----> 1 is_divisible(6, 3)

NameError: name 'is_divisible' is not defined
```

In [18]:
```
#The code for Question 1-(50)
>>> factorial(1.5)
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-18-76683e6cb948> in <module>
----> 1 factorial(1.5)

NameError: name 'factorial' is not defined
```

In [19]:
```
#The code for Question 1-(51)
>>> print(factorial('fred'))
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-19-ef8f99d344fb> in <module>
----> 1 print(factorial('fred'))

NameError: name 'factorial' is not defined
```

In [20]:
```
#The code for Question 1-(52)
>>> print(factorial(-2))
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-20-939cd69b8edb> in <module>
----> 1 print(factorial(-2))

NameError: name 'factorial' is not defined
```

Chapter 7

In [21]:
```
#The code for Question 1-(53)
>>> x = 5
>>> x
```
Out[21]: 5

In [22]:
```
#The code for Question 1-(54)
>>> x = 7
>>> x
```
Out[22]: 7

In [23]:
```
#The code for Question 1-(55)
>>> a = 5
>>> b = a # a and b are now equal
>>> a = 3 # a and b are no longer equal
>>> b
```
Out[23]: 5

In [26]:
```
#The code for Question 1-(56)
>>> a = 4
>>> x = 3
>>> y = (x + a/x) / 2
>>> y
```
Out[26]: 2.1666666666666665

In [27]:
```
#The code for Question 1-(57)
>>> x = y
>>> y = (x + a/x) / 2
>>> y
```
Out[27]: 2.0064102564102564

In [28]:
```
#The code for Question 1-(58)
>>> x = y
>>> y = (x + a/x) / 2
>>> y
```
Out[28]: 2.0000102400262145

In [29]:
```
#The code for Question 1-(59)
>>> x = y
>>> y = (x + a/x) / 2
>>> y
```
Out[29]: 2.0000000000262146

In [30]:
```
#The code for Question 1-(60)
>>> x = y
>>> y = (x + a/x) / 2
>>> y
```
Out[30]: 2.0

In [31]:
```
#The code for Question 1-(61)
>>> x = y
>>> y = (x + a/x) / 2
>>> y
```
Out[31]: 2.0

Question#3

In [32]:
```
#The code for Question 3-(1)
import random
#generate 12 random numbers between 1 and 100
randomlist= random.sample (range (1,100),12)
print(randomlist)
```
```
[83, 80, 18, 42, 21, 54, 74, 33, 68, 8, 61, 89]
```

In [33]:
```
#The code for Question 3-(2)
x=[83, 80, 18, 42, 21, 54, 74, 33, 68, 8, 61, 89]
x.sort()
print("Ascending order is", x)
```
```
Ascending order is [8, 18, 21, 33, 42, 54, 61, 68, 74, 80, 83, 89]
```

In [34]:
```
#The code for Question 3-(3)
x=[83, 80, 18, 42, 21, 54, 74, 33, 68, 8, 61, 89]
x.sort(reverse=True)
print("Descending order is", x)
```
```
Descending order is [89, 83, 80, 74, 68, 61, 54, 42, 33, 21, 18, 8]
```

In [37]:
```
#The code for Question 3-(4)
sum([83, 80, 18, 42, 21, 54, 74, 33, 68, 8, 61, 89])
#sum values in a list
```
Out[37]: 631

In [41]:
```
#The code for Question 3-(5)
631/12
```
Out[41]: 52.583333333333336