In [1]:
```
#Advanced NUmbers
```

In [2]:
```
hex(1997)
```

Out[2]: '0x7cd'

In [3]:
```
bin(1997)
```

Out[3]: '0b11111001101'

In [4]:
```
pow(3,4)
```

Out[4]: 81

In [5]:
```
abs(-89.5)
```

Out[5]: 89.5

In [6]:
```
round(-89.5)
```

Out[6]: -90.0

In [7]:
```
#Advaned Strings
```

In [8]:
```
s='hey there! I am using whatsapp'
```

In [10]:
```
s.capitalize()
```

Out[10]: 'Hey there! i am using whatsapp'

In [11]:
```
s.upper()
```

Out[11]: 'HEY THERE! I AM USING WHATSAPP'

In [12]:
```
s.lower()
```

Out[12]: 'hey there! i am using whatsapp'

In [13]:
```
s.count('t')
```

Out[13]: 2

In [14]:
```
s.count('p')
```

Out[14]: 2

In [15]:
```
s.find('p')
```

Out[15]: 28

In [22]:
```
s.center(55,'z')
```

Out[22]:
```
'zzzzzzzzzzzzzhey there! I am using whatsappzzzzzzzzzzzz'
```

In [23]:
```
'hello\thi'.expandtabs()
```

Out[23]:
```
'hello   hi'
```

In [24]:
```
s.isalnum()
```

Out[24]:
```
False
```

In [26]:
```
s.isalpha()s.islower()
```

Out[26]:
```
False
```

In [27]:
```
s.islower()
```

Out[27]:
```
False
```

In [28]:
```
s.isspace()
```

Out[28]:
```
False
```

In [29]:
```
s.isupper()
```

Out[29]:
```
False
```

In [30]:
```
s.istitle()
```

Out[30]:
```
False
```

In [31]:
```
s.endswith('p')
```

Out[31]:
```
True
```

In [32]:
```
s.split('e')
```

Out[32]:
```
['h', 'y th', 'r', '! I am using whatsapp']
```

In [33]:
```
s.partition('e')
```

Out[33]:
```
('h', 'e', 'y there! I am using whatsapp')
```

In [34]:
```
#Advanced Sets
```

In [35]:
```
t=set()
```

In [37]:
```
t.add('a')
```

In [38]:
```
t.add(2)
```

In [39]:
```
t
```

Out[39]:
```
{2, 'a'}
```

In [40]:
```
t.sort()
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
<ipython-input-40-0708f4171c7e> in <module>()
----> 1 t.sort()

AttributeError: 'set' object has no attribute 'sort'
```

In [41]:
```
t.clear()
```

In [42]:
```
t
```

Out[42]:
```
set()
```

In [43]:
```
t={1,2,3,4}
s=t.copy()
s
```

Out[43]:
```
{1, 2, 3, 4}
```

In [44]:
```
t.add(5)
```

In [45]:
```
t
```

Out[45]:
```
{1, 2, 3, 4, 5}
```

In [48]:
```
s
```

Out[48]:
```
{1, 2, 3, 4}
```

In [49]:
```
t.difference(s)
```

Out[49]:
```
{5}
```

In [ ]:
```

```

In [50]:
```
s.difference(t)
```

Out[50]:
```
set()
```

In [51]:
```
t.difference_update(s)
```

In [52]:
```
s
```

Out[52]:
```
{1, 2, 3, 4}
```

In [53]:
```
t
```

Out[53]: {5}

In [54]:
```
s.discard(4)
```

In [55]:
```
s
```

Out[55]: {1, 2, 3}

In [56]:
```
t.intersection(s)
```

Out[56]: set()

In [57]:
```
t
```

Out[57]: {5}

In [58]:
```
s
```

Out[58]: {1, 2, 3}

In [59]:
```
t.intersection_update(s)
```

In [60]:
```
t
```

Out[60]: set()

In [61]:
```
s
```

Out[61]: {1, 2, 3}

In [62]:
```
s1 = {1,2}
s2 = {1,2,4}
s3 = {5}
```

In [63]:
```
s1.isdisjoint(s3)
```

Out[63]: True

In [64]:
```
s3.issubset(s1)
```

Out[64]: False

In [65]:
```
s2.issuperset(s1)
```

Out[65]: True

In [66]:
```
s1.symmetric_difference(s2)
```

Out[66]: {4}

In [67]:
```
s1.union(s2)
```

Out[67]:
```
{1, 2, 4}
```

In [68]:
```
s1.update(s2)
```

In [69]:
```
s1
```

Out[69]:
```
{1, 2, 4}
```

In [70]:
```
#Advanced Disctionaries
```

In [71]:
```
{x:x**2 for x in range(10)}
```

Out[71]:
```
{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}
```

In [72]:
```
d = {'k1':1,'k2':2}
```

In [73]:
```
for k in d.iterkeys():
    print k
```

```
k2
k1
```

In [74]:
```
for v in d.itervalues():
    print v
```

```
2
1
```

In [75]:
```
for item in d.iteritems():
    print item
```

```
('k2', 2)
('k1', 1)
```

In [76]:
```
d.viewitems()
```

Out[76]:
```
dict_items([('k2', 2), ('k1', 1)])
```

In [77]:
```
#Advanced List
```

In [78]:
```
x = [1, 2, 3]
x.append([4, 5])
print x
```

```
[1, 2, 3, [4, 5]]
```

In [79]:
```
x.extend([4, 5])
print x
```

```
[1, 2, 3, [4, 5], 4, 5]
```

In [ ]: