

Identifiers

1.Allowed Alphabet symbol(a-z A-Z) digit(0 to 9) underscore (_)

```
In [9]: cas$=10

File "<ipython-input-9-ab1d85ef4fef>", line 1
    cas$=10
      ^
SyntaxError: invalid syntax
```

```
In [10]: case=10
```

2.Identifiers should not start with digit

```
In [11]: total123=100
```

```
In [12]: 123total=100

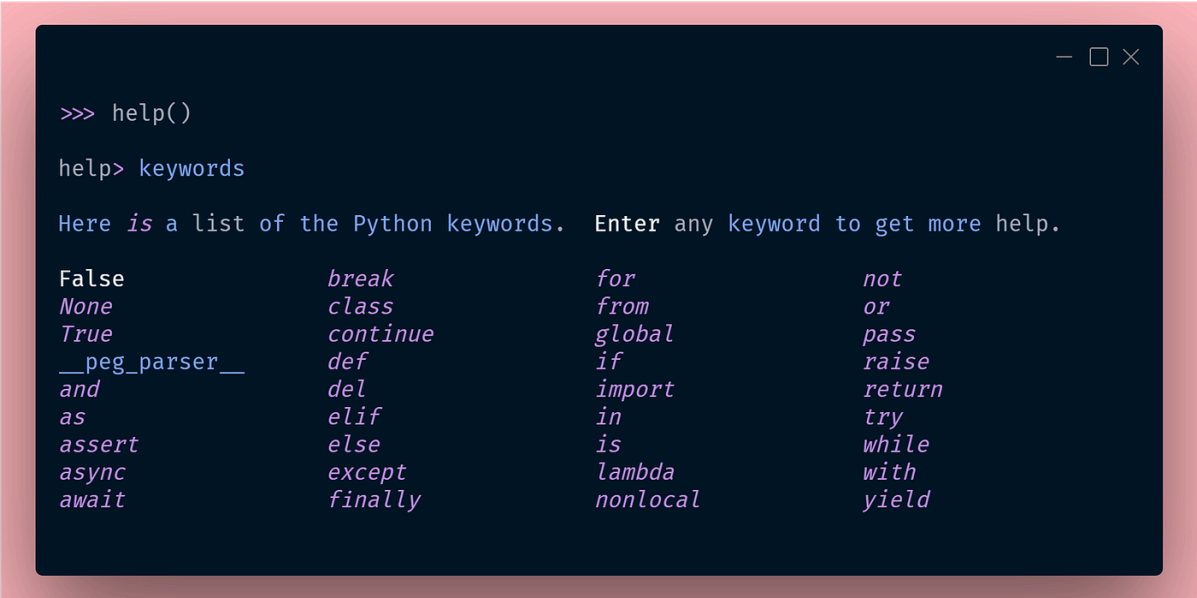
File "<ipython-input-12-fdd64dde9c79>", line 1
    123total=100
      ^
SyntaxError: invalid syntax
```

3.Identifiers are Case sensitive

```
In [13]: total=100
        Total=100
        TOTAL=100
```

Above all 3 are different

4.we have cannot use reserve keywords as Identifiers



```
>>> help()

help> keywords

Here is a list of the Python keywords. Enter any keyword to get more help.

False      break      for        not
None       class     from       or
True       continue  global     pass
__peg_parser__  def       if         raise
and        del       import     return
as         elif      in         try
assert     else      is         while
async      except    lambda    with
await      finally  nonlocal  yield
```

```
In [14]: None=10

File "<ipython-input-14-3f6ae3e9f859>", line 1
    None=10
      ^
SyntaxError: cannot assign to None
```

5.There is no length limit for python Identifiers but not recommends to use too lengthy identifiers.

6.if Identifiers starts with Underscore (_) then it is private

```
In [15]: _a=10
```

7. if Identifiers starts with double Underscore(_ _) then it is strongly private identifier e.g. __a__=10

8.if Identifiers starts and end with double Underscore then it is language define special name which is also known as magic method e.g. add

Data types

Types

Text-string Numeric- int, float, complex sequential - list, tuple, range mapping - dict set-set, frozenset boolean - bool Binary - bytes, bytearray

1.str 'Arman' " xyz" ""xyz""

2.int 1 121337 -121311313

Binary

```
In [17]: a=0b1111 #b or B
         print(a)
```

15

```
In [18]: b=0b123
```

```
File "<ipython-input-18-ccc17b1104db>", line 1
      b=0b123
          ^
```

SyntaxError: invalid digit '2' in binary literal

Octal

```
In [20]: a=0o1111 #o or O
         print(a)
```

585

Hex

```
In [22]: a=0xABCD # x or X
         print(a)
```

43981

Base conversion

```
In [23]: # 1.bin()
         print(bin(15))
```

0b1111

```
In [24]: bin(15) # it gives String
```

```
Out[24]: '0b1111'
```

```
In [26]: print(bin(0o11))
```

0b1001

In [27]: `print(bin(0x12))`

0b10010

In [30]: `# 2.oct()`
`# 3.hex()`
#same as above
`oct(12) # it gives String`

Out[30]: '0xc'

In []: