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Identifiers

A name in Python Program is called Identifiers.
It can be Variable Name or function name or module name or class name.

Ex:-

variable_name:- a = 10

Rules to define identifiers in Python:-

1. The only allowed Characters in python are.
 - a. alphabets symbol(either lower case and upper case)
 - b. digit(0 to 9)
 - c. underscore symbol(_)

Ex:-

```
>>> Bank=9
>>> bank
Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    bank
NameError: name 'bank' is not defined
>>> bank_ui =9
>>> 78bank = 78
SyntaxError: invalid syntax
>>> bank78 =90
>>> bank&tu=89
SyntaxError: cannot assign to operator
>>>
```

2. Identifiers should not start with digit.

```
-> 123total -----wrong
-> total123 -----right
```

3. Identifiers are case sensitive ,of course python language is case sensitive language.

ex:-

```
>>> total = 10
>>> print(TOTAL)
Traceback (most recent call last):
  File "<pyshell#8>", line 1, in <module>
    print(TOTAL)
```

```
NameError: name 'TOTAL' is not defined
>>> print(total)
10
>>>
```

Identifiers Points:-

1. Alphabets symbols(both upper and lower)

```
>>> Total = 10
>>> total = 10
```

2. Only (underscore) symbol is allowed.if identifiers is start with underscore(underscore) then it's private or other mode.

```
>>> abc_abc = 10---normal
>>> _abc = 10-----protected
>>> __abc = 10-----private
```

3. Identifiers should not start with digits.

```
>>> 78bank = 78
SyntaxError: invalid syntax
```

4. Identifiers are case sensitive.

```
>>> total = 10
>>> print(TOTAL)
Traceback (most recent call last):
  File "<pyshell#8>", line 1, in <module>
    print(TOTAL)
NameError: name 'TOTAL' is not defined
```

5. we can not use keyword or reserved word as Identifiers.-----

6. there is no limit for python Identifiers.But not recommended to use too lengthy Identifiers.

7. except underscore symbol,other symbol are not allowed.

```
bank&tu=89
SyntaxError: cannot assign to operator
```

Note:-

1. Normal variable =>

```
x = 10
```

2. if Identifiers start with single(underscore) then it indicates that it is protected variable.

```
_x = 10
```

3. If identifiers start with double(_) then it indicates that it is Private variable.

```
__x = 10
```

Casing:-

Casing are two types snake casing and camel casing.

Camel Casing:-

First letter of word is Uppercase and rest of the letters lower case and here no symbols are allowed, if we define two words in one identifier then we write First letter of both words are in Upper Case.

ex:-

```
BankReceiverName = "Santhosh Deshmukh"
```

Snake Casing:-

Here we can not use upper case, and only(_) underscore is allowed.

ex:-

```
bank_receiver_name = "Santhosh Deshmukh"
```

Reserved Words/Keywords

In python some words are reserved to represent some meaning of functionality. Such type of words are called Reserved words.

There are 35 reserved words available in python.

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