

# VARIABLES IN PYTHON

By Sudhanshi

```
In [1]: Name = "Honey"

In [2]: Items= 94

In [3]: print(Name)
print(Items)

Honey
94

In [4]: type(Name)

Out[4]: str

In [9]: type(Items)

Out[9]: int

In [10]: x=20.25
type(x)

Out[10]: float

In [11]: x= 19j
type(x)

Out[11]: complex
```

Note 2: Variable without defining a value

```
In [12]: Skills

-----
NameError                                Traceback (most recent call last)
<ipython-input-12-9ca61796c269> in <module>
----> 1 Skills

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

Note 3:Variables name can't start with numbers

```
In [7]: 1skills = "SQL","Excel","Python"

File "<ipython-input-7-98c693274bbe>", line 1
1skills = ["SQL","Excel","Python"]
^
SyntaxError: invalid syntax

In [8]: skills = ["SQL","Excel","Python"]
print(skills)

['SQL', 'Excel', 'Python']
```

Note 4: Can't use lower case if Variable start with upper case

```
In [13]: Language="Python","is","a","programming","language"
print(language)

-----
NameError                                Traceback (most recent call last)
<ipython-input-13-1e7a1da87e97> in <module>
----> 1 Language="Python","is","a","programming","language"
----> 2 print(language)

NameError: name 'language' is not defined

In [14]: var = "Data Analyst"
print(var.upper())

DATA ANALYST

In [69]: print(var.lower())

data analyst

rstrip removes trailing characters and spaces
string.rstrip(characters)

In [71]: text = "Strawberryeeeeeeeeesssss"
print(text.rstrip('es'))

Strawberry

In [73]: text ="I have a car"
print(text.rstrip())

I have a car

In [77]: new_text=(text.rstrip())

In [79]: len(text)

Out[79]: 41

In [80]: len(new_text)

Out[80]: 12

In [81]: #lstrip

text="Python is a programming language"
print(text)
print(text.lstrip())

Python is a programming language

In [82]: text = "0000000000000000Honey*****"
print(text)
print(text.rstrip('*').lstrip('0'))

0000000000000000Honey*****
Honey
```

Note 5: Python doesn't allow you to concatenate string and an integer value

```
In [20]: String1='Honey'
Number = 22
Domain = '@gmail.com'

In [21]: print(String1+Number+Domain)

-----
TypeError                                Traceback (most recent call last)
<ipython-input-21-66070a9ba854> in <module>
----> 1 print(String1+Number+Domain)

TypeError: can only concatenate str (not "int") to str

In [22]: String='Honey'
Number = '22'
Domain = '@gmail.com'

In [23]: print(String+Number+Domain)

Honey22@gmail.com
```

Note 6: Change Variable values

```
In [25]: x= 13

In [26]: x+ 12

Out[26]: 25

In [27]: y=25

In [28]: x+y

Out[28]: 38

In [29]: 26+_

Out[29]: 64

In [30]: x=20

In [31]: x+y

Out[31]: 45

In [32]: print(x)

20
```

Note 7: Underscore ( \_ ) is used when we don't need to add new value

```
In [33]: y=30
z=15

In [37]: (y+z)/5

Out[37]: 9.0

In [38]: _ + 20

Out[38]: 29.0

In [39]: _ + 80

Out[39]: 109.0

In [40]: type((y+z)/5)

Out[40]: float
```

Note 8: Slicing

string [start:end:step]

```
In [41]: string="I want to become a Data Analyst"

In [42]: print(string)

I want to become a Data Analyst

In [43]: string = "sudhanshi"

In [44]: print(string[10])

-----
IndexError                                Traceback (most recent call last)
<ipython-input-44-2deb6beb6ab1> in <module>
----> 1 print(string[10])

IndexError: string index out of range

In [51]: newstring="I want to become a Data Analyst"

In [53]: print(newstring[19:23])

Data

In [54]: print(newstring[19:23:5])

D

In [55]: print(newstring[-12:])

Data Analyst

In [56]: print(newstring[-12:-8])

Data

In [57]: len(newstring)

Out[57]: 31

In [62]: string= "I want to become a Data Analyst"
len_string = len(string)
string[24]

Out[62]: 'A'
```

Note 9:Strings are immutable

```
In [63]: A = 'Rohit'

In [65]: A[3]

Out[65]: 'i'

In [66]: A[3:]="an"

-----
TypeError                                Traceback (most recent call last)
<ipython-input-66-1810d0e71f20> in <module>
----> 1 A[3:]="an"

TypeError: 'str' object does not support item assignment

In [67]: A="Rohan"
print(A)

Rohan

In [ ]: a=[5,1,3,4,4,5,6,7]
b=[3,3,5,5,1,7,2]
```