# Variable , Object , Identifier

In [1]:
```
# STRING VARIABLE

name = 'shaikh Razekh'   # name is a variable and 'moiz Bagwan' is value
name
```

Out[1]: 'shaikh Razekh'

In [2]:
```
name = "Naresh it"
name
```

Out[2]: 'Naresh it'

In [3]:
```
hr_name = "Admin"
hr_name
```

Out[3]: 'Admin'

In [4]:
```
advice = "always ba HAPPY"
advice
```

Out[4]: 'always ba HAPPY'

In [5]:
```
# INTEGER VARIABLE

age = 20      # age is a variable and 25 is value
age
```

Out[5]: 20

In [6]:
```
num = 9096
num
```

Out[6]: 9096

In [7]:
```
score = 15
score
```

Out[7]: 15

In [9]:
```
marks = 94.58
marks
```

Out[9]: 94.58

In [10]:
```
# FLOAT VARIABLE

price = 999.99           # price is a variable and 999.99 is value
price
```

Out[10]: 999.99

In [11]:
```
# BOOLEAN VARIABLE
```

```
is_active = True
is_active              # is_active is a variable and True is value
```

Out[11]: True

In [12]:
```
clg = False
clg
```

Out[12]: False

In [13]:
```
if = 5              # 'if' is the reserved word in python . in python 35 words a
if
```

```
  Cell In[13], line 1
    if = 5              # 'if' is the reserved word in python . in python 35 word
s are reserved words.
       ^
SyntaxError: invalid syntax
```

In [14]:
```
import keyword
keyword.kwlist
```

Out[14]:
```
['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']
```

In [15]:
```
len(keyword.kwlist)
```

Out[15]: 35

# 1 STORING AND PRINTING VALUE

In [17]:
```
# Store the value 10 in the variable called 'x'

x = 10          # printing the value 'x'
print(x)
```

```
10
```

In [18]:
```
a = 100                #In Variable we assgn int data type
print(a)
```

```
100
```

In [19]:
```
b = 17.17335           # in Variable we assgn float data type
print(b)
```

```
17.17335
```

In [20]:
```
y = 5342               # In Variable we assgn int data type
print(y)
```

```
5342
```

In [21]:
```
name = 'shaikh razekh'           # In Variable we assgn string data type
print(name)
```

```
shaikh razekh
```

In [22]:
```
batch = 'FSDS'         # In Variable we assgn string data type
batch
```

Out[22]: 'FSDS'

In [23]:
```
v1 = 9           # this is valid
v1
```

Out[23]: 9

# 2 USING VARIABLE IN EXPRESSION

In [24]:
```
# Assigning value to variable
a = 5
b = 4                      #      Addition of two numbers using variable
print(a + b)
```

```
9
```

In [25]:
```
a = 845
b = 532                    #  Substraction of two numbers using variable
print(a - b)
```

```
313
```

In [26]:
```
x = 456
y = 654                    #  Multiplication of two numbers using variable
```

```
print(x * y)
```

```
298224
```

In [27]:
```
a = 525
b = 121                  # Float Division of two numbers using variable
print(a / b)
```

```
4.338842975206612
```

In [28]:
```
a = 525
b = 121                  #  Int Division of two numbers using variable
b = 121
print(a // b)
```

```
4
```

In [29]:
```
a = 5
b = 5                    #  Power of two numbers using variable
print(a ** b)
```

```
3125
```

In [30]:
```
name = "NIT"
name           # Define and call the same Variable. not another variable.
```

Out[30]:
```
'NIT'
```

# 3 Changing the value of a variable

In [31]:
```
# initial value
score = 50
print (score)       #output is  50

# changing the value of 'score'

score = 100
print(score)         #output is  50
```

```
50
100
```

In [32]:
```
a = 90
print(a)

# changing value

a = 33
print(a)
```

```
90
33
```

In [33]:
```
marks = 98.99
print(marks)

# changing value..

marks = 78.99
print(marks)
```

```
98.99
78.99
```

In [34]:
```
name = 'solo'
print(name)

# changing value..

name = 'bolo'
print(name)
```

```
solo
bolo
```

# 4 Concatenation Strings

In [36]:
```
# assigning value to variable

first_name = 'razekh'
second_name = 'shaikh'

# concatenating strings and storing in a new variable

full_name = first_name+  " "  + second_name
print(full_name)
```

```
razekh shaikh
```

In [37]:
```
a = 'Naresh'
b = 'IT'

a = a +' ' + b
print(a)
```

```
Naresh IT
```

In [38]:
```
x = "Good"
y = 'Night'

z = x +" " + y
print(z)
```

```
Good Night
```

# Using Variable in a Calculation

In [39]:
```
# Assigning value to variable

a = 10
b = 5

# Calculation the area of a recangle

area = a * b
print(area)
```

```
50
```

In [40]:
```
# Assigning value to variable

a = 50
b = 60

# find average of two value

avg = ((a + b)/ 2)

print(avg)
```

```
55.0
```

# Reassigning Value to Variable

In [41]:
```
x = 10 # initial value of x
print(x)                         # out put is  [10]

# reassigning the value of x

x = 20
print(x)                        # output is 20
```

```
10
20
```

In [42]:
```
x = 100 # initial value of x
print(x)                         # out put is  [10]

# reassigning the value of x

x = 205
print(x)                        # output is 20
```

```
100
205
```

In [43]:
```
a = 100
print(a)

# reassigning value..

a = 1000
print(a)
```

```
100
1000
```

In [ ]: