Variables

python variable is used to store values.

In [3]:
```
a = 10
```

In [5]:
```
print(a)
```

```
10
```

In [8]:
```
b = 9.8
print(B)
```

```
---------------------------------------------------------------------
---------
NameError                                 Traceback (most recent c
all last)
<ipython-input-8-cd07d2818810> in <module>
      1 b = 9.8
----> 2 print(B)

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

In [9]:
```
print(b)
```

```
9.8
```

In [10]:
```
c = 'coder'
```

In [11]:
```
print(c)
```

```
coder
```

In [12]:
```
a = 56
```

In [16]:
```
#printing value of a
print(a)
```

```
56
```

Data types

In [20]:
```
# integer
a = 9
```

In [21]:
```
# finding data type of stored value
type(a)
```

Out[21]: int

In [22]:
```
# float
weight = 45.8
```

In [23]:
```
type(weight)
```

Out[23]: float

In [40]:
```
# string
name = 'avengers'
type(name)
```

Out[40]: str

In [45]:
```
# boolean

6>5
```

Out[45]: True

In [46]:
```
1>100
```

Out[46]: False

In [47]:
```
type(8>67)
```

Out[47]: bool

In [52]:
```
# complex number  ( combination of real and imaginary number)

var1 = 5 + 7j

type(var1)
```

Out[52]: complex

In [63]:
```
# list

l = [5,6,7,8,7.4,'python']
```

In [64]:
```
type(l)
```

Out[64]:
```
list
```

In [65]:
```
# Tuple

tup = (4,6,2,7.4,'python')
```

In [66]:
```
type(tup)
```

Out[66]:
```
tuple
```

In [74]:
```
# Dictionary  :{keys :values} pair

d = {"python" :3.8,'b':10 ,8:'programming'}
```

In [78]:
```
print(d)
```

```
{'python': 3.8, 'b': 10, 8: 'programming'}
```

In [75]:
```
d.keys()
```

Out[75]:
```
dict_keys(['python', 'b', 8])
```

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

Out[76]:
```
dict_values([3.8, 10, 'programming'])
```

In [68]:
```
type(d)
```

Out[68]:
```
dict
```

In [79]:
```
# set  : no (keys :values) pair present

s = {4,8,10}
```

In [62]:
```
type(s)
```

Out[62]:
```
set
```

User input

In [86]:
```
# input() : used to take input from user

name = input("Hiii whats your name ? ")
```

```
Hiii whats your name ? python
```

In [88]:
```
type(name)
```

Out[88]:
```
str
```

In [95]:
```
age = input("can you tell me your age : ")
```

```
can you tell me your age : 20
```

In [106]:
```
print(age)
```

```
21
```

In [96]:
```
# input gives output in terms of strings
type(age)
```

Out[96]:
```
str
```

Typecasting

In [97]:
```
# converting one data type to other datatype is called typecasting
```

In [98]:
```
age = int(input("can you tell me your age : "))
```

```
can you tell me your age : 21
```

In [99]:
```
type(age)
```

Out[99]:
```
int
```

In [101]:
```
print(3.14,int(3.14))
```

```
3.14 3
```

In [102]:
```
print(9,float(9))
```

```
9 9.0
```

In [ ]:
```

```

Task

1) write a python program to save following data in variable (any variable that you want):

- name, weight, height, 12th marks, any boolian condition
- print every variable
- check data type of each variable

2) write a python program to take input from user for your mobile number and check data type

In [ ]: