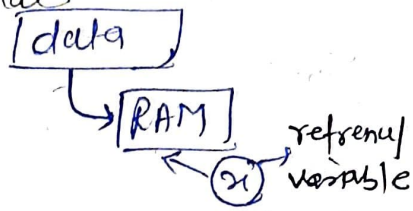
Session - 6

Python

> Python3. ← for open the Python terminal

```
>>> print("hello")
```
↳ for Print something in Python.

```
>>> x = "hello"
```
↳ here x is variable which store data & refrence of data



"hello" is a data type so we can which type check of datatype "hello"

the data that is store (or) assigned to the x is known is datatype

```
>>> type(x)
    ↳ String
```

```
x = 5
print(x)
>>> type(x)
Int
```

```
x = 5.6
print(x)
>>> type(x)
Float
```

```
x = "True"
>>> type(x)
String
```

```
x = True
>>> type(x)
boolean
```

Python support data type Inference, so we don't need to assign datatype, it automatically find datatype

Python Datatypes

- → String x = "Hello"
- → Number
  - → Integer x = 5
  - → Float x = 5.5
  - → Complex x = 5+6i
- → list a = [5, 6, 7]
- → Tuple a = (5, 6, 7)
- → Dictionary a = {5, 6, 7}
- → byte'
- → byte array

much more.

String;

```
>>> y = "Hi Anubhav here"
>>> type(y)
    String
>>> print(y) → Hi Anubhav here
>>> y → 'Hi Anubhav here'
```
↳ we can directly print also, without using print function( ).

↳ In Python; Every character inside String has their unique index no.

eg- Hi Anubhav here

0 1 3 4 ← forward order

-3 -2 -1 ← reverse order

: → slicing operator ↓ for cutting the String

```
>>> y[0] → 'h'
>>> y[4] → 'a'
```
for Particular character print from String

```
>>> y[6:10]
'bhav'
>>> [10:15]
'Here'
```
from providing range we can print the string

>>> y[1:6:1] → jump/interval → i Anu → 1 is bydefault so either y[1:6] or y[1:6:1] } both are same in slicing

>>> y[1:6:2] → iAu → jump of 2

String: It is sequence of character

slicing: Cut the string a/c to your need or jump from one character to another

>>> y[-1::-1] → Reverse of string., not using any pre-created function

Escape Sequence

\n → for New line

\t → for tab/4 character blank space

```
>>> x='this is \n hi pop'
>>> print(x)
this is
 hi pop
```

```
>>> x=r'this is \n hi pop'
>>> print(x)
this is \n hi pop
```

r is row which is allow us to print same string.

Gautam

```
>>> x="This is Anubhav and welcome you"
>>> "Anubhav" in x
True
>>> "Bhardwaj" in x
False
```

search something inside our string.

if the searching word is available it will return "True" otherwise "False"

Tuple: This is the special datatype in which we can store the different types of data.

```
>>> y=2, 6, 89, "hi", 0.7
>>> y
(2, 6, 89, 'hi', 0.7)
```

```
y[0]
2
y[-1]
0.7
y[1:3] → (6, 89)
```

Indexing is also work inside tuple

Limitation:

Tuple is immutable, in tuple we have only read only access not to modified it

sol → List

List

```
>>> y=[2, 6, 89, "hi", 0.7]
>>> print(y)
[2, 6, 89, 'hi', 0.7]
>>> type(y)
list
```

Difference b/w list & tuple

Tuple is immutable while list is mutable; working-wise both are same.