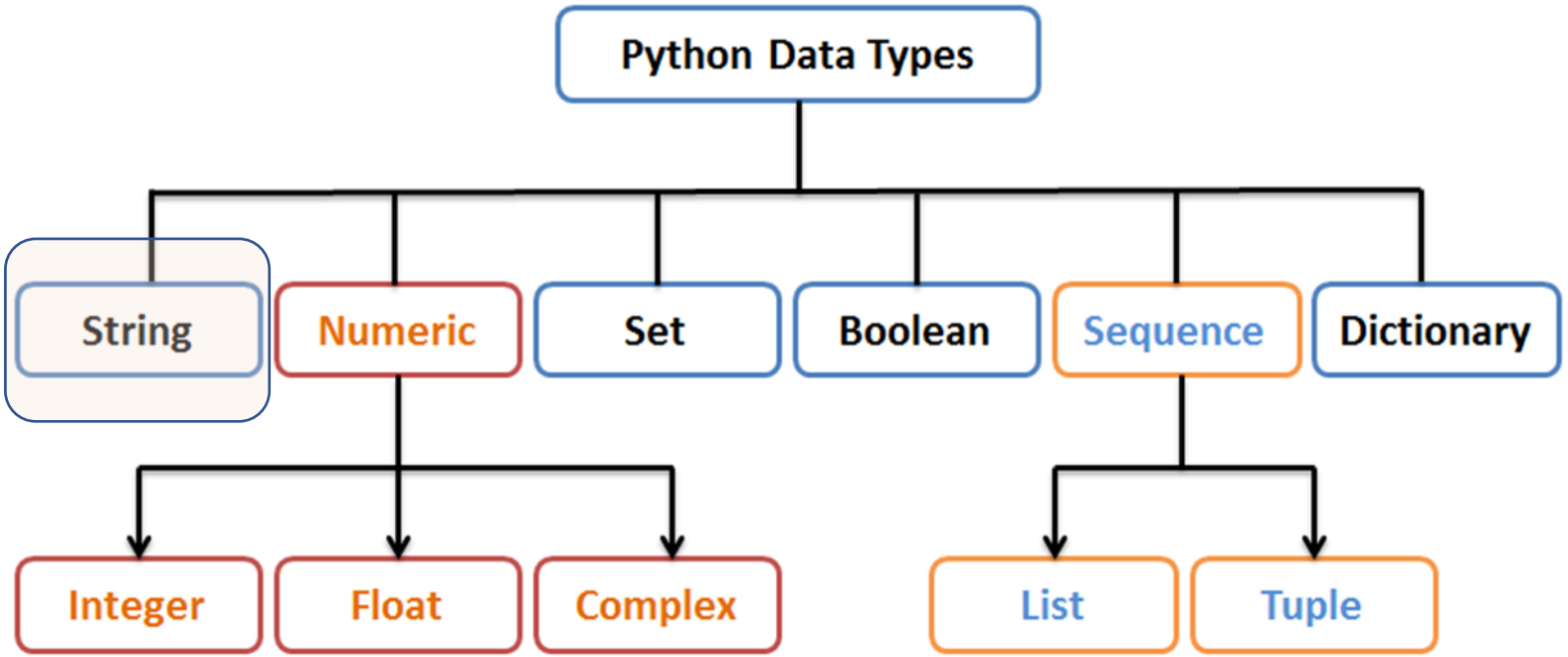
Python Strings

Anoop S Babu
Faculty Associate
Dept. of Computer Science & Engineering
bsanoop@am.amrita.edu

Python Data Types



Strings

- Sequence of character data
- Enclosed in single quotes, double quotes or triple quotes

  Eg:- s = "Strings in Python"

- Python string data type is str

```
>>> type(s)
<class 'str’>
```

- Single character is also a string in Python

```
>>> c = "p"
>>> type(c)
<class 'str'>
```

Defining Strings

```
s = "Strings in Python"
print(s) ──────────────────────► Strings in Python

s = 'Strings in Python'
print(s) ──────────────────────► Strings in Python

s = """Strings                  Strings
in                  ──────────► in
Python """                      Python
```

Escape Character

```
s = "I saw the movie 'That\'s my son'."
print(s)
```

I saw the movie 'That's my son'.

```
s = """Strings \
in \
Python """
print(s)
```

Strings in Python

Accessing characters in a string

- Individual characters using indexing
- A range of characters using slicing

Indexing

Starts from 0. Index must be an integer.

```
s = "Strings in Python"
print(s[2])
```

r

- Allows negative indexing

-1 – last character

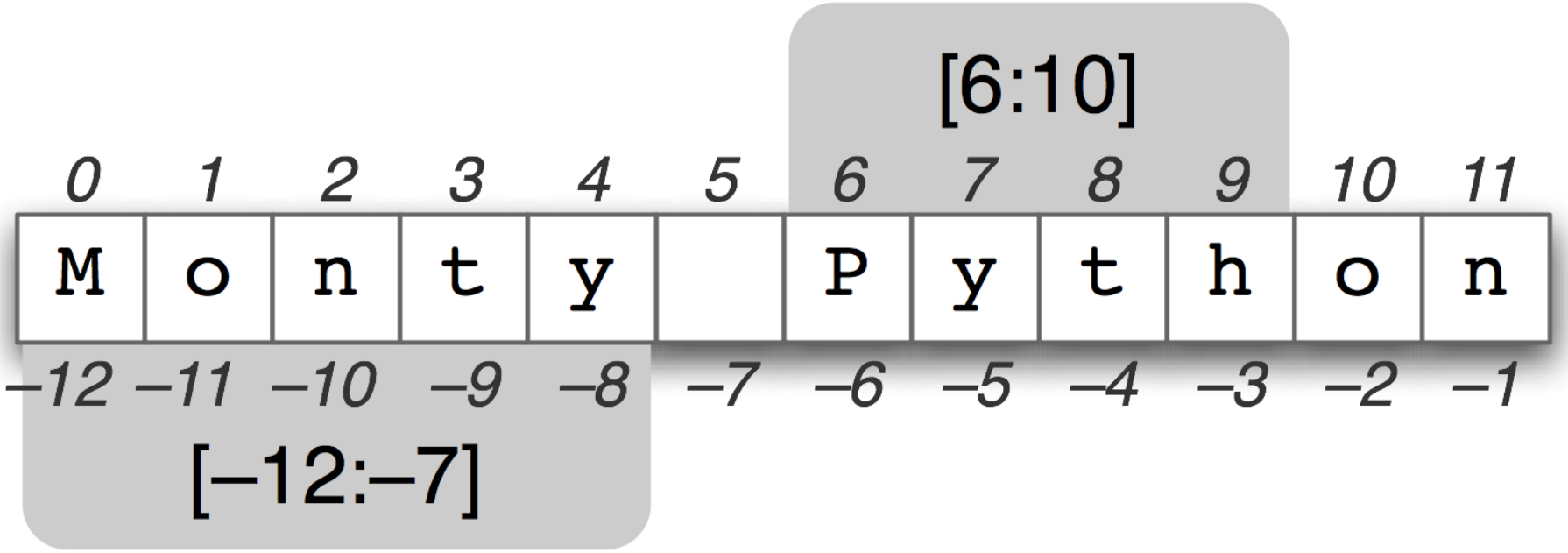
-2 – second last, and so on.

```
print(s[-2])
```

o

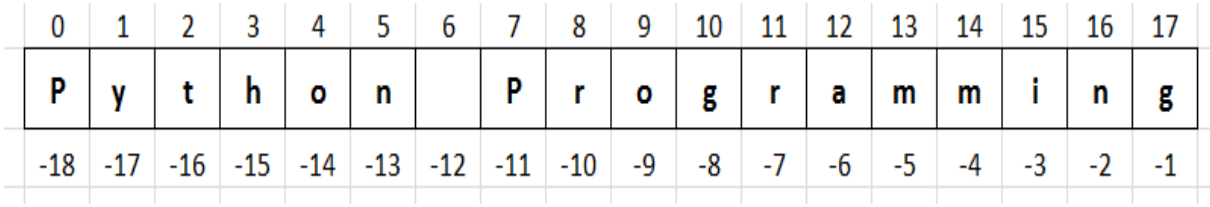
Slicing

- Slicing operator - : (colon)
- s[start:end]
- Slicing starts from start index up to end index(not included)



Slicing – more example

```
>>> s = "Python Programming"
>>> s[:6]
'Python'
>>> s[7:]
'Programming'
>>> s[10:14]
'gram'
>>> s[:-4]
'Python Program'
>>> s[-11:-4]
'Program'
```



0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
P	y	t	h	o	n		P	r	o	g	r	a	m	m	i	n	g
-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

Strings are immutable

- Elements of a string cannot be reassigned.

```
>>> s = "Immutable "
>>> s[3] = 'u'
…
TypeError: 'str' object does not support item assignment
```