

# Strings

# Strings: Sequence of Characters

```
print("Hello, USTians!")
```

Double quotation marks

Hello, USTians!

```
print('Hello, USTians!')
```

Single quotation marks

Hello, USTians!

```
print('''Hello!  
USTians!  
Welcome to UST!  
''')
```

Multi-line text

Hello!  
USTians!  
Welcome to UST!

# Index of Strings

```
a = "Good Morning!"
```

```
print(a[0])  
print(a[3])  
print(a[12])
```

G  
d  
!

G	o	o	d		M	o	r	n	i	n	g	!
0	1	2	3	4	5	6	7	8	9	10	11	12

Note that index starts with 0 in Python.

# Index of Strings

```
a = "Good Morning!"
```

```
print(a[-5])  
print(a[-12])  
print(a[-13])
```

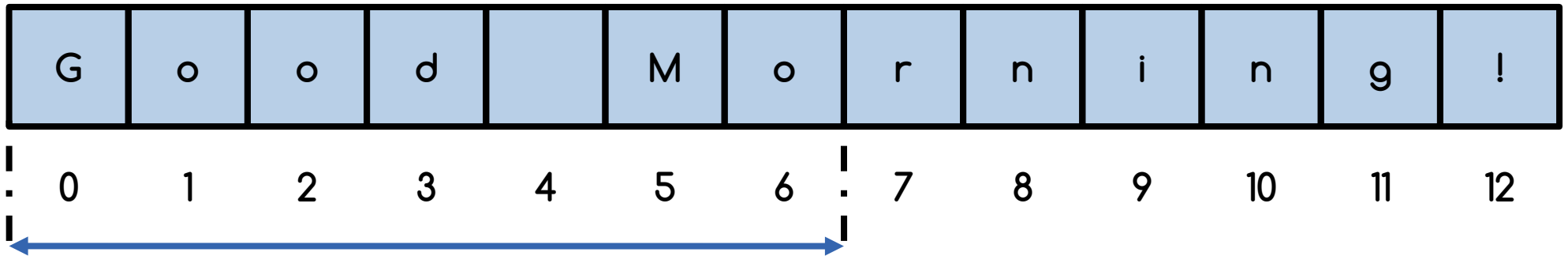
n  
o  
G

G	o	o	d		M	o	r	n	i	n	g	!
0	1	2	3	4	5	6	7	8	9	10	11	12
-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

# Slicing Strings

```
print(a[0:7])
```

Good Mo



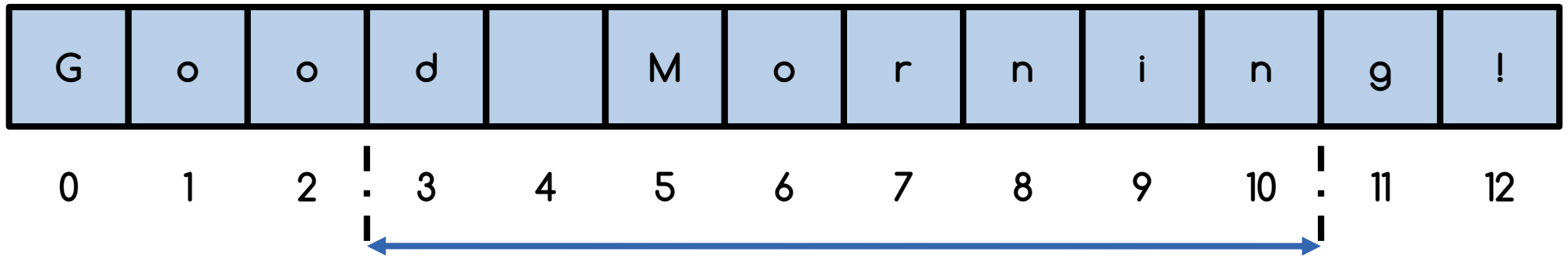
`a[0:7]` : It spans from 0<sup>th</sup> element to 6<sup>th</sup> element.

Note that 7<sup>th</sup> element is **NOT** included.

# Slicing Strings

```
print(a[3:11])
```

d Mornin



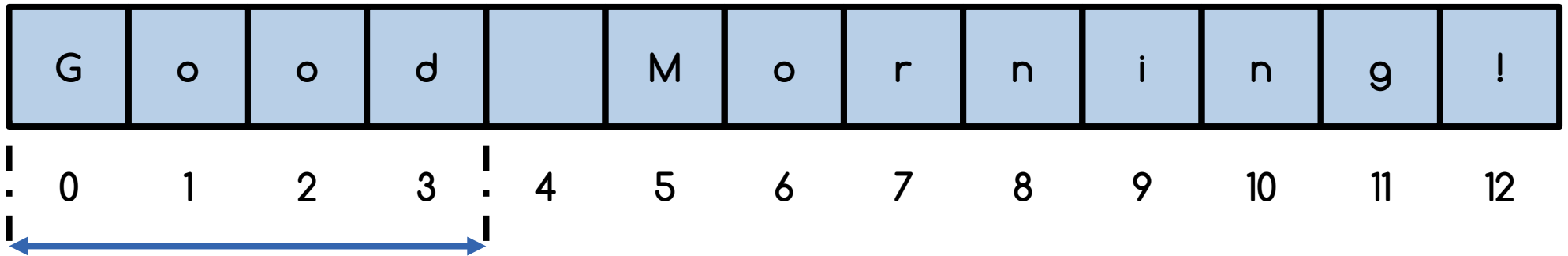
$a[m:n]$  : It starts from  $m^{\text{th}}$  element, and ends right before  $n^{\text{th}}$  element.

[from  $m^{\text{th}}$  element to  $(n-1)^{\text{th}}$  element]

# Slicing Strings

```
print(a[:4])
```

Good



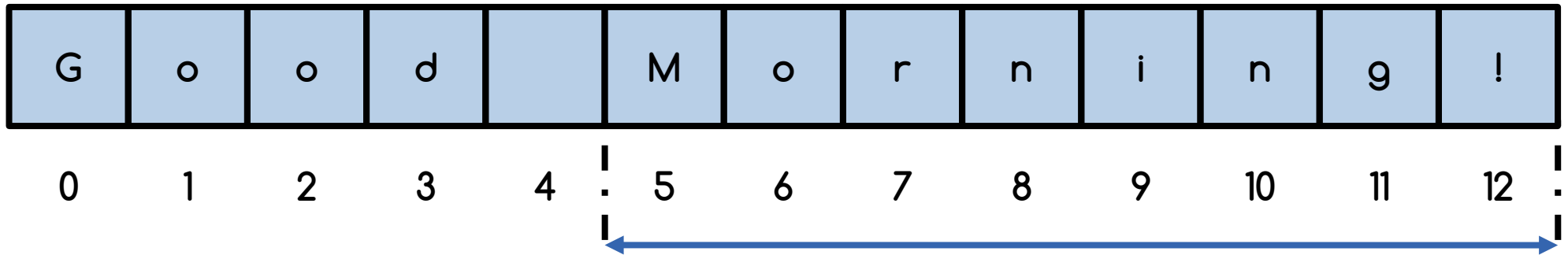
`a[:n]` : It starts from 0<sup>th</sup> element, and ends right before n<sup>th</sup> element.

[from 0<sup>th</sup> element to (n-1)<sup>th</sup> element]

# Slicing Strings

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

Morning!



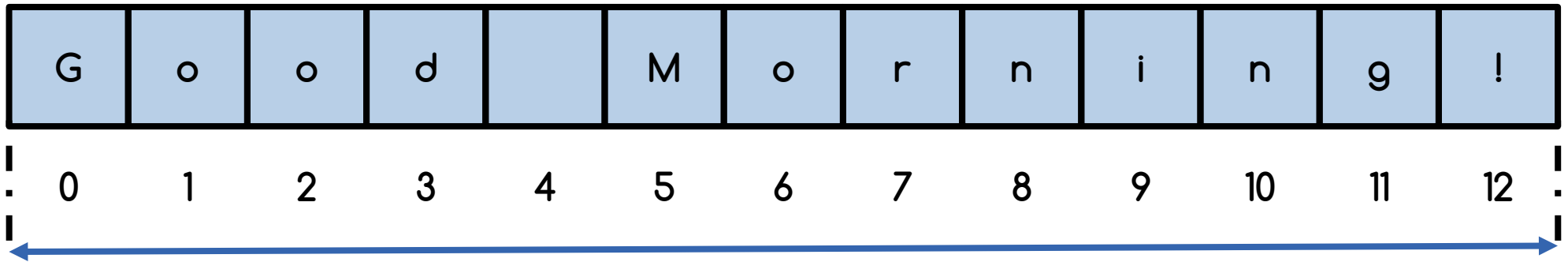
`a[m:]` : It starts from  $m^{\text{th}}$  element to the end of the string.



# Slicing Strings

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

Good Morning!



`a[:] = a` → it starts from the beginning to the end.

Indexing, and Slicing are also applicable to other types of compound variables, such as lists, tuples, etc.

# String Operations: len()

```
a = "Good Morning!"  
print(len(a))
```

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