

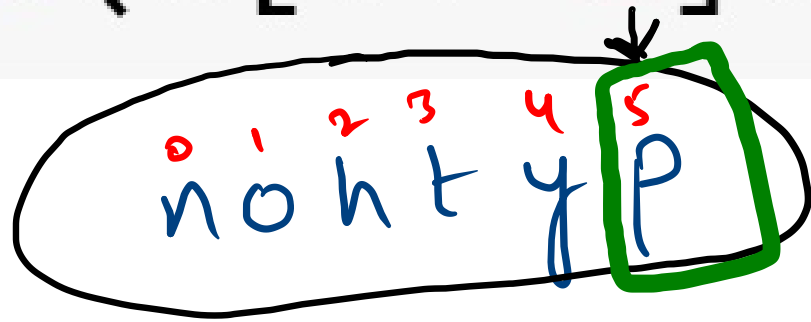
```
s = 'python'  
print(s.startswith('y', 1))
```

start index ←

default start index: 0
default stop index: length of the string

True

```
s = 'python'  
print(s[::-1].startswith('p', 5))
```



True

```
s = 'python'  
print(s.startswith('p')[::-1])
```

①

②

True

Error

```
s = 'python'  
print(s.endswith('o', 0, 5))
```

True

string.center()

```
[ ] s = 'python'  
print(s.center(10, '*'))
```

→ result string length

- ① will prepare string with 10 '*'s. * * * * *
- ② middle of the 'x's replace with Python

* * * * * * * * *

P y t h o n

* * P y t h o n * *

```
s = 'python'
```

even

```
print(s.center(11, '*'))
```

```
***python**
```

$$11 - 6 \Rightarrow 5 / 2 \Rightarrow 2 \text{ (end)}$$
$$5 - 2 \Rightarrow 3 \text{ (start)}$$

odd

```
s = 'pythoon'  
print(s.center(10, '*'))
```

*Pythoon**

$$10 - 7 \Rightarrow 3/2 \Rightarrow 1 \text{ (start)}$$
$$3 - 1 \Rightarrow 2 \text{ (end)}$$

```
s = 'I have {2} {0} and {1} notes'  
print(s.format(10, 20, 50))  
# I have 50 10 and 20 notes
```


Data: Excel.

- ① load data from file.
- ② $S = \dots$ string data

- ③ loop

$p: n_1 @ gmail.com$

$s.format(n_1)$

send

Name	Email
n_1	$n_1 @ gmail.com$
n_2	$n_2 @ gmail.com$
\vdots	\vdots
\vdots	\vdots
\vdots	\vdots