

# Position-based Indexing (iloc)

```
df.iloc[row index position(s), column index position(s)]
```

		column index positions					
		-5	-4	-3	-2	-1	
		0	1	2	3	4	
		Nationality	Club	World_Champion	Height	Goals_2018	
row index positions		Player					
-5	0	Lionel Messi	Argentina	FC Barcelona	False	1.70	45
-4	1	Cristiano Ronaldo	Portugal	Juventus FC	False	1.87	44
-3	2	Neymar Junior	Brasil	Paris SG	False	1.75	28
-2	3	Kylian Mbappe	France	Paris SG	True	1.78	21
-1	4	Manuel Neuer	Germany	FC Bayern	True	1.93	0

Zero-based indexing applies!

# Position-based Indexing (iloc) – Example 1

df.iloc[2, 1]

-5

0

Nationality

-4

1

Club

-3

2

World\_Champion

-2

3

Height

-1

4

Goals\_2018

Player

-5

0

Lionel Messi

Argentina

FC Barcelona

False

1.70

45

-4

1

Cristiano Ronaldo

Portugal

Juventus FC

False

1.87

44

-3

2

Neymar Junior

Brasil

Paris SG

False

1.75

28

-2

3

Kylian Mbappe

France

Paris SG

True

1.78

21

-1

4

Manuel Neuer

Germany

FC Bayern

True

1.93

0

Output is an element („Paris SG“).

# Position-based Indexing (iloc) – Example 2

```
df.iloc[[2,3], 1:]
```

↑  
from position 1 till last (inclusive)

		1	2	3	4
		Club	World_Champion	Height	Goals_2018
	Player				
2	Neymar Junior	Paris SG	False	1.75	28
3	Kylian Mbappe	Paris SG	True	1.78	21

Output is a DataFrame.

# Position-based Indexing (**iloc**) – Example 3

`df.iloc[1:3, :]`

all columns

inclusive    exclusive

		0	1	2	3	4
		Nationality	Club	World_Champion	Height	Goals_2018
	Player					
1	Cristiano Ronaldo	Portugal	Juventus FC	False	1.87	44
2	Neymar Junior	Brasil	Paris SG	False	1.75	28

Output is a DataFrame.

# Position-based Indexing (**iloc**) – Example 4

```
df.iloc[-2:, 3]
```

last two rows

		Player	3
-2	3	Kylian Mbappe	1.78
-1	4	Manuel Neuer	1.93

Name: Height, dtype: float64

Output is a Pandas Series.