

# Label-based Indexing (loc)

```
df.loc[row label(s), column label(s)]
```

column labels

Nationality	Club	World_Champion	Height	Goals_2018
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row labels

Player					
Lionel Messi	Argentina	FC Barcelona	False	1.70	45
Cristiano Ronaldo	Portugal	Juventus FC	False	1.87	44
Neymar Junior	Brasil	Paris SG	False	1.75	28
Kylian Mbappe	France	Paris SG	True	1.78	21
Manuel Neuer	Germany	FC Bayern	True	1.93	0

# Label-based Indexing (loc) – Example 1

```
df.loc["Neymar Junior", "Club"]
```



	Nationality	Club	World_Champion	Height	Goals_2018
Player					
Lionel Messi	Argentina	FC Barcelona	False	1.70	45
Cristiano Ronaldo	Portugal	Juventus FC	False	1.87	44
Neymar Junior	Brasil	Paris SG	False	1.75	28
Kylian Mbappe	France	Paris SG	True	1.78	21
Manuel Neuer	Germany	FC Bayern	True	1.93	0

Output is an element (“Paris SG”).

## Label-based Indexing (**loc**) – Example 2

```
df.loc[["Neymar Junior", "Kylian Mbappe"], "Club":]
```

from column "Club" till last (inclusive)



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

Output is a DataFrame.

# Label-based Indexing (loc) – Example 3

```
df.loc["Lionel Messi" : "Neymar Junior", :]
```

all columns

↑ inclusive

↑ inclusive

Player	Nationality	Club	World_Champion	Height	Goals_2018
Lionel Messi	Argentina	FC Barcelona	False	1.70	45
Cristiano Ronaldo	Portugal	Juventus FC	False	1.87	44
Neymar Junior	Brasil	Paris SG	False	1.75	28

Output is a DataFrame.

# Label-based Indexing (**loc**) – Example 4

```
df.loc[: "Kylian Mbappe", "Height"]
```



from very first till “Kylian Mbappe” (inclusive)

```
Player
Lionel Messi      1.70
Cristiano Ronaldo 1.87
Neymar Junior     1.75
Kylian Mbappe     1.78
Name: Height, dtype: float64
```

Output is a Pandas Series.