

How can we change one or more index values in Pandas?

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Pandas is a popular open-source library used for data manipulation and analysis in Python. It provides various methods to modify and update data in a Pandas DataFrame, including changing one or more index values. This can be achieved by using the built-in "set_index" function, which allows for the replacement or reordering of existing index values. Additionally, the "rename" function can be used to change specific index values by specifying the current and desired index names. Pandas also offers the flexibility to modify multiple index values at once using advanced indexing techniques, such as using Boolean masks or multi-indexing. These methods provide a convenient and efficient way to update index values in a Pandas DataFrame.

Change One or More Index Values in Pandas

You can use the following syntax to change a single index value in a pandas DataFrame:

```
df.rename(index={'Old_Value':'New_Value'},  
inplace=True)
```

And you can use the following syntax to change several index values at once:

```
df.rename(index={'Old1':'New1', 'Old2':'New2'},  
inplace=True)
```

The following examples shows how to use this syntax in practice.

Example 1: Change One Index Value in Pandas DataFrame

Suppose we have the following pandas DataFrame:

```
import pandas as pd#create DataFrame
df = pd.DataFrame({'team': ,
'points': ,
'assists': ,
'rebounds': })
```

```
#make 'team' column the index column
df.set_index('team', inplace=True)
```

```
#view DataFrame
df
```

```
points assists rebounds
team
A 25 5 11
B 12 7 8
C 15 7 10
D 14 9 6
E 19 12 6
F 23 9 5
G 25 9 9
H 29 4 12
```

We can use the following code to replace the 'A' value in the index column to be 'P' instead:

```
#replace 'A' with 'P' in index  
df.rename(index={'A':'P'}, inplace=True)
```

```
#view updated DataFrame  
df
```

```
points assists rebounds  
team
```

```
P 25 5 11
```

```
B 12 7 8
```

```
C 15 7 10
```

```
D 14 9 6
```

```
E 19 12 6
```

```
F 23 9 5
```

```
G 25 9 9
```

```
H 29 4 12
```

Notice that the 'A' value in the original index has been replaced while all other values remained the same.

Example 2: Change Multiple Index Values in Pandas DataFrame

Suppose we have the same pandas DataFrame as before:

```
#view DataFrame
```

```
df
```

```
points assists rebounds
```

```
team
```

```
A 25 5 11
```

```
B 12 7 8
```

```
C 15 7 10
```

```
D 14 9 6
```

```
E 19 12 6
```

```
F 23 9 5
```

```
G 25 9 9
```

```
H 29 4 12
```

We can use the following code to replace the 'A' and 'B' values in the index column:

```
#replace 'A' with 'P' and replace 'B' with 'Q' in index  
df.rename(index={'A':'P', 'B':'Q'}, inplace=True)
```

```
#view updated DataFrame
```

```
df
```

```
points assists rebounds
```

```
team
```

```
P 25 5 11
```

Q 12 7 8

C 15 7 10

D 14 9 6

E 19 12 6

F 23 9 5

G 25 9 9

H 29 4 12

Notice that the 'A' and 'B' values in the original index have been replaced while all other values remained the same.

Additional Resources

The following tutorials explain how to perform other common operations in pandas: