

How can I drop columns by their index in Pandas?

Authored by
stats writer

April 30, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I drop columns by their index in Pandas?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=141297>

Pandas is a popular Python library used for data analysis and manipulation. One of its key functionalities is the ability to drop columns from a dataset based on their index. This can be achieved by using the ".drop" method and specifying the index labels of the columns to be dropped. This process allows for efficient and precise data manipulation, making it a useful tool for managing large datasets. Additionally, Pandas offers various options for selecting and dropping columns, providing flexibility and versatility to the user.

Drop Columns by Index in Pandas

You can use the following syntax to drop one column from a pandas DataFrame by index number:

```
#drop first column from DataFrame  
df.drop(df.columns, axis=1, inplace=True)
```

And you can use the following syntax to drop multiple columns from a pandas DataFrame by index numbers:

```
#drop first, second, and fourth column from DataFrame  
cols =  
df.drop(df.columns, axis=1, inplace=True)
```

If your DataFrame has duplicate column names, you can use the following syntax to drop a column by index number:

```
#define list of columns
```

```
cols = )]
```

```
#drop second column
```

```
cols.remove(1)
```

```
#view resulting DataFrame
```

```
df.iloc
```

The following examples show how to drop columns by index in practice.

Example 1: Drop One Column by Index

The following code shows how to drop the first column in a pandas DataFrame:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'team': ,
```

```
'first': ,
```

```
'last': ,
```

```
'points': })
```

```
#drop first column from DataFrame
```

```
df.drop(df.columns, axis=1, inplace=True)
```

```
#view resulting DataFrame  
df
```

```
first last points
```

```
0 Dirk Nowitzki 26
```

```
1 Kobe Bryant 31
```

```
2 Tim Duncan 22
```

```
3 LeBron James 29
```

Example 2: Drop Multiple Columns by Index

The following code shows how to drop multiple columns in a pandas DataFrame by index:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'team': ,
```

```
'first': ,
```

```
'last': ,
```

```
'points': })
```

```
#drop first, second and fourth columns from DataFrame
```

```
cols =
```

```
df.drop(df.columns, axis=1, inplace=True)
```

```
#view resulting dataframe
```

```
df
```

```
last
```

```
0 Nowitzki
```

```
1 Bryant
```

```
2 Duncan
```

```
3 James
```

Example 3: Drop One Column by Index with Duplicates

The following code shows how to drop a column by index number in a pandas DataFrame when duplicate column names exist:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'team': ,
```

```
'last': ,
```

```
'last': ,
```

```
'points': },
```

```
columns=)
```

```
#define list of columns range
```

```
cols = ]]
```

```
#remove second column in DataFrame
```

```
cols.remove(1)
```

```
#view resulting DataFrame
```

```
df.iloc
```

```
team last points
```

```
0 Mavs Nowitzki 26
```

```
1 Lakers Bryant 31
```

```
2 Spurs Duncan 22
```

```
3 Cavs James 29
```

ARABPSYCHOLOGY.COM