

# How can we retrieve column names in Pandas using different methods?

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## RECOMMENDED CITATION

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Pandas is a popular Python library used for data analysis and manipulation. One of the common tasks when working with dataframes is retrieving column names. This can be done using various methods in Pandas, such as the `.columns` attribute, the `.keys()` method, or the `.get_column_names()` function. These methods allow for easy and efficient retrieval of column names, providing users with flexibility in choosing the most suitable method for their specific needs. By utilizing these methods, users can quickly access and work with column names, resulting in a smoother and more efficient data analysis process.

## Get Column Names in Pandas (3 Methods)

You can use the following methods to get the column names in a pandas DataFrame:

### Method 1: Get All Column Names

`list(df)`

### Method 2: Get Column Names in Alphabetical Order

`sorted(df)`

### Method 3: Get Column Names with Specific Data Type

`list(df.select_dtypes(include=))`

The following examples show how to use each method with the following pandas DataFrame:

```
import pandas as pd

#create DataFrame
df = pd.DataFrame({'team': ,
'points': ,
'assists': ,
'playoffs': })
```

```
#view DataFrame
print(df)
```

```
team points assists playoffs
0 A 18 5 True
1 B 22 7 False
2 C 19 7 False
3 D 14 9 True
4 E 14 12 True
5 F 11 9 True
```

### Example 1: Get All Column Names

The easiest way to get all of the column names in a pandas DataFrame is to use `list()` as follows:

```
#get all column nameslist(df)
```

The result is a list that contains all four column names from the pandas DataFrame.

### Example 2: Get Column Names in Alphabetical Order

To get the column names in a pandas DataFrame in alphabetical order, you can use the `sorted()` function as follows:

```
#get column names in alphabetical order  
sorted(df)
```

The result is a list that contains all four column names from the pandas DataFrame listed in alphabetical order.

```
#get column names in reverse alphabetical order  
sorted(df, reverse=True)
```

### Example 3: Get Column Names with Specific Data Type

You can use the following syntax to view the data type of each column in the DataFrame:

```
#view data type of each column  
df.dtypes
```

team object

**points int64**  
**assists int64**  
**playoffs bool**  
**dtype: object**

You can then use the `select_dtypes()` function to only get the column names with a specific data type.

For example, we can use the following syntax to only get the column names that have a data type of `int64` or `bool`:

```
#get all columns that have data type of int64 or bool  
list(df.select_dtypes(include=))
```

The result is a list of column names that have a data type of `int64` or `bool`.

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