

PANDAS FILTER

SHARP SIGHT

WHAT YOU'LL LEARN

- How to use the Pandas `filter` method
- How to retrieve columns from a Pandas DataFrame

PANDAS FILTER OVERVIEW

THE FILTER METHOD RETRIEVES COLUMNS FROM A DATAFRAME

```
supercars.filter([make])
```

model	make	horsepower	engine_size
Veyron	Bugatti	1,184	487.7
Agera	Koenigsegg	1,124	307
Aventador	Lamborghini	710	396.5
Mustang Shelby	Ford	662	354.6
559 GTO	Ferrari	661	366
911	Porsche	611	219.6

Note: Here, supercars is an "abbreviated" version of the actual data

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NOTE: PANDAS FILTER TECHNICALLY CAN RETRIEVE ROWS TOO

- Technically, the `filter` method can retrieve rows too
- I discourage using `filter` to retrieve rows
 - Pandas has better tools for retrieving rows like
 - ... `query`, `loc`, `iloc`
- I recommend using `filter` for columns, just for simplicity

PANDAS FILTER SYNTAX

SYNTAX: PANDAS FILTER METHOD

The name of the
DataFrame you
want to operate on

Which columns to
keep in the output



```
myDataFrame.filter([items-to-keep])
```

The diagram illustrates the syntax of the pandas filter method. It features a central code snippet `myDataFrame.filter([items-to-keep])` enclosed in a light gray box. Three red arrows point to specific parts of the code: one points down to `myDataFrame` from the text 'The name of the DataFrame you want to operate on'; another points up to `filter` from the text 'The name of the method'; and a third points down to `[items-to-keep]` from the text 'Which columns to keep in the output'.

The name of
the method

THE FILTER METHOD CAN RETRIEVE ONE COLUMN OR MANY COLUMNS

The items to keep should be expressed as a Python list of columns



```
myDataFrame.filter([items-to-keep])
```

This can be a list of one column or many columns

PARAMETERS OF PANDAS FILTER

THE PARAMETERS OF PANDAS FILTER

Input	What it does
<code>items=</code>	Specify which columns to keep (expressed as a list)
<code>regex=</code>	Specify which columns to keep, expressed as a regular expression.

Note: There are a couple of other parameters, but they are more rarely used, so we won't discuss them.

THE OUTPUT OF PANDAS FILTER

- The filter method will return a DataFrame with the columns that you specify

RECAP

RECAP OF WHAT WE LEARNED

- You can retrieve columns from a DataFrame with the `filter` method
- You can retrieve:
 - one column
 - multiple columns
 - columns that match a regular expression (regex)
- **Next Steps:** Watch the code walkthrough video for examples how to to retrieve columns with `filter`