How can I perform a VLOOKUP in Pandas?

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VLOOKUP, short for "vertical lookup," is a function commonly used in spreadsheet programs to search for and retrieve data from a table. In Pandas, this can be performed using the "merge" function. This allows for the merging of two data frames based on a common key column, similar to the "lookup" function in spreadsheet programs. By specifying the key column and the desired output column, the merge function can effectively perform a VLOOKUP in Pandas. This allows for efficient data manipulation and analysis, making it a valuable tool for working with large datasets.

Perform a VLOOKUP in Pandas

You can use the following basic syntax to perform a VLOOKUP (similar to Excel) in pandas:

```
pd.merge(df1,
df2,
on ='column_name',
how ='left')
```

The following step-by-step example shows how to use this syntax in practice.

Step 1: Create Two DataFrames

First, let's import pandas and create two pandas DataFrames:

```
import pandas as pd

#define first DataFrame
```

```
df1 = pd.DataFrame({'player': ,
'team': })

#define second DataFrame
df2 = pd.DataFrame({'player': ,
'points': })

#view df1
print(df1)

player team
0 A Mavs
1 B Mavs
2 C Mavs
3 D Mavs
4 E Nets
5 F Nets

#view df2
print(df2)

player points
0 A 22
1 B 29
2 C 34
```

3 D 20

4 E 15

5 F 19

Step 2: Perform VLOOKUP Function

The VLOOKUP function in Excel allows you to look up a value in a table by matching on a column.

The following code shows how to look up a player's team by using pd.merge() to match player names between the two tables and return the player's team:

```
#perform VLOOKUP
joined_df = pd.merge(df1,
df2,
on ='player',
how ='left')

#view results
joined_df
```

player team points

0 A Mavs 22

1 B Mavs 29

2 C Mavs 34

3 D Mavs 20

4 E Nets 15

5 F Nets 19

Notice that the resulting pandas DataFrame contains information for the player, their team, and their points scored.

You can find the complete online documentation for the pandas merge() function .

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