

How can I convert all columns of a Pandas DataFrame to integers?

Authored by
stats writer

May 11, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I convert all columns of a Pandas DataFrame to integers?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=143715>

Converting all columns of a Pandas DataFrame to integers can be achieved by using the "astype" function. This function allows for the conversion of data types within the DataFrame, including converting columns to integers. By specifying the data type as "int" within the function, all columns in the DataFrame will be converted to integers. This method is useful when dealing with datasets that contain mixed data types, and the need for uniformity in data types is required for further analysis or calculations.

Convert Pandas DataFrame Columns to int

You can use the following syntax to convert a column in a pandas DataFrame to an integer type:

```
df = df.astype(int)
```

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

Example 1: Convert One Column to Integer

Suppose we have the following pandas DataFrame:

```
import pandas as pd

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

#view data types for each column

```
df.dtypes
```

```
player object
```

```
points object
```

```
assists object
```

```
dtype: object
```

We can see that none of the columns currently have an integer data type.

The following code shows how to convert the 'points' column in the DataFrame to an integer type:

```
#convert 'points' column to integer
```

```
df = df.astype(int)
```

```
#view data types of each column
```

```
df.dtypes
```

```
player object
```

```
points int64
```

```
assists object
```

```
dtype: object
```

We can see that the 'points' column is now an integer,

while all other columns remained unchanged.

Example 2: Convert Multiple Columns to Integer

The following code shows how to convert multiple columns in a DataFrame to an integer:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'player': ,  
'points': ,  
'assists': })
```

```
#convert 'points' and 'assists' columns to integer
```

```
df] = df].astype(int)
```

```
#view data types for each column
```

```
df.dtypes
```

```
player object
```

```
points int64
```

```
assists int64
```

```
dtype: object
```

We can see that the 'points' and 'assists' columns have

been converted to integer while the 'player' column remains unchanged.

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

ARABPSYCHOLOGY.COM