How can I convert a timestamp to a datetime in Pandas?

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Converting a timestamp to a datetime in Pandas allows for the manipulation and analysis of time-based data. This process involves utilizing the built-in functions and methods in Pandas to convert the timestamp, which is a single point in time, into a datetime object, which includes both date and time information. This transformation can be achieved by using the to_datetime() function or the astype() method, both of which allow for the customization and formatting of the final datetime output. Overall, converting a timestamp to a datetime in Pandas is a crucial step in effectively working with time-series data in a data analysis project.

Convert Timestamp to Datetime in Pandas

You can use the following basic syntax to convert a timestamp to a datetime in a pandas DataFrame:

timestamp.to_pydatetime()

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

Example 1: Convert a Single Timestamp to a Datetime

The following code shows how to convert a single timestamp to a datetime:

```
#define timestamp
stamp = pd.Timestamp('2021-01-01 00:00:00')

#convert timestamp to datetime
stamp.to_pydatetime()
```

datetime.datetime(2021, 1, 1, 0, 0)

Example 2: Convert an Array of Timestamps to Datetimes

The following code shows how to convert an array of timestamps to a datetime:

```
#define array of timestamps
stamps = pd.date_range(start='2020-01-01 12:00:00', periods=6, freq='H')

#view array of timestamps
stamps

DatetimeIndex(,
dtype='datetime64', freq='H')

#convert timestamps to datetimes
stamps.to_pydatetime()

array(, dtype=object)
```

Example 3: Convert a Pandas Column of Timestamps to Datetimes

The following code shows how to convert a pandas column of timestamps to datetimes:

```
import pandas as pd

#create DataFrame
df = pd.DataFrame({'stamps':
pd.date_range(start='2020-01-01 12:00:00',
periods=6,
freq='H'),
'sales': })

#convert column of timestamps to datetimes
df.stamps = df.stamps.apply(lambda x: x.date())

#view DataFrame
df

stamps sales
0 2020-01-01 11
1 2020-01-01 14
2 2020-01-01 25
3 2020-01-01 31
4 2020-01-01 34
5 2020-01-01 35
```