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PySpark to_date() – Convert Timestamp to Date

👤 NNK (https://sparkbyexamples.com/author/admin/) -

🗁 PySpark (https://sparkbyexamples.com/category/pyspark/)

PySpark functions provide to_date() function to convert timestamp to date (DateType), this ideally achieved by just truncating the time part from the Timestamp column. In this tutorial, I will show you a PySpark example of how to convert timestamp to date on DataFrame & SQL.

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to_date() – function formats Timestamp to Date.

```
Syntax: to_date(timestamp_column)
Syntax: to_date(timestamp_column,fo
```

PySpark timestamp (`TimestampType`) consists of value in the format `yyyy-MM-dd HH:mm:ss.SSSS` and Date (`DateType`)

format would be `yyyy-MM-dd`. Use to_date() function to truncate time from Timestamp or to convert the timestamp to date on DataFrame column.

```
df=spark.createDataFrame(
        data = [ ("1","2019-06-24 1
        schema=["id","input_timesta
df.printSchema()

#Displays
root
 |-- id: string (nullable = true)
 |-- input_timestamp: string (nulla
```

Using to_date() – Convert Timestamp String to Date

In this example, we will use to_date() function to convert `TimestampType` (or string) column to `DateType` column. The input to this function should be timestamp column or string in TimestampType format and it returns just date in DateType column.

```
from pyspark.sql.functions import

#Timestamp String to DateType
df.withColumn("date_type",to_date('
  .show(truncate=False)

#Timestamp Type to DateType
df.withColumn("date_type",to_date(
  .show(truncate=False)

#Above Both examples display
+---+--------------------+-----
|id |input_timestamp     |date_t
+---+--------------------+-----
|1  |2019-06-24 12:01:19.000|2019-0
+---+--------------------+-----

#Custom Timestamp format to DateTy
df.select(to_date(lit('06-24-2019 1
  .show()

#Displays
+-----------------------------
|to_date('06-24-2019 12:01:19.000',
+-----------------------------
|
+-----------------------------
```

Convert TimestampType (timestamp) to DateType (date)

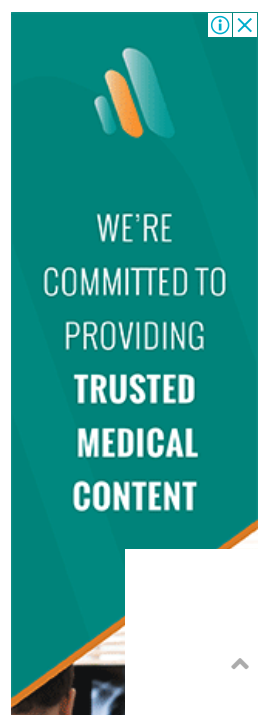This example converts the PySpark TimestampType column to DateType.

```
#Timestamp type to DateType
df.withColumn("ts",to_timestamp(col
   .withColumn("datetype",to_date(cc
   .show(truncate=False)

#Displays
+---+---------------------+------
|id |input_timestamp      |ts
+---+---------------------+------
|1  |2019-06-24 12:01:19.000|2019-(
+---+---------------------+------
```

Using Column cast() Function

Here is another way to convert TimestampType (timestamp string) to DateType using `cast` function.

```
# Using Cast to convert Timestamp S
df.withColumn('date_type', col('inp
      .show(truncate=False)

# Using Cast to convert TimestampTy
df.withColumn('date_type', to_times
   .show(truncate=False)

#Displays
+---+----------------------+------
|id |input_timestamp       |date_t
+---+----------------------+------
|1  |2019-06-24 12:01:19.000|2019-0
+---+----------------------+------
```

PySpark SQL – Convert Timestamp to Date

Following are similar examples using with PySpark SQL. If you are from an SQL background these come in handy.

```
#SQL TimestampType to DateType
spark.sql("select to_date(current_t

#SQL CAST TimestampType to DateType
spark.sql("select date(to_timestamp

#SQL CAST timestamp string to DateT
spark.sql("select date('2019-06-24

#SQL Timestamp String (default form
spark.sql("select to_date('2019-06-

#SQL Custom Timeformat to DateType
spark.sql("select to_date('06-24-2(
```

Complete code

```
from pyspark.sql import SparkSessio

# Create SparkSession
spark = SparkSession.builder \
        .appName('SparkByExamples
        .getOrCreate()

df=spark.createDataFrame(
        data = [ ("1","2019-06-24 1
        schema=["id","input_timest
df.printSchema()


from pyspark.sql.functions import

# Using Cast to convert Timestamp S
df.withColumn('date_type', col('inp
        .show(truncate=False)

# Using Cast to convert TimestampTy
df.withColumn('date_type', to_times
   .show(truncate=False)

df.select(to_date(lit('06-24-2019 1
   .show()

#Timestamp String to DateType
df.withColumn("date_type",to_date('
   .show(truncate=False)

#Timestamp Type to DateType
df.withColumn("date_type",to_date(c
   .show(truncate=False)

df.withColumn("ts",to_timestamp(col
   .withColumn("datetype",to_date(c
   .show(truncate=False)

#SQL TimestampType to DateType
spark.sql("select to_date(current_t
#SQL CAST TimestampType to DateType
spark.sql("select date(to_timestamp
#SQL CAST timestamp string to DateT
spark.sql("select date('2019-06-24
#SQL Timestamp String (default form
spark.sql("select to_date('2019-06-
#SQL Custom Timeformat to DateType
spark.sql("select to_date('06-24-20
```

In this example, you have learned how to cast the timestamp to date column using `to_date()` and `cast` functions.

Happy Learning !!

Related Articles:

- PySpark SQL – How to Get Current Date
  & Timestamp
  (https://sparkbyexamples.com/pyspark/py
  spark-current-date-timestamp/)
- PySpark SQL – Date and Timestamp
  Functions
  (https://sparkbyexamples.com/pyspark/py
  spark-sql-date-and-timestamp-functions/)
- PySpark SQL – Convert Date to String
  Format
  (https://sparkbyexamples.com/pyspark/py
  spark-date_format-convert-date-to-string-
  format/)
- PySpark SQL – Convert String to Date
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  (https://sparkbyexamples.com/pyspark/py
  spark-to_date-convert-string-to-date-
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Spark Check Column Data Type is Integer
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string/)