

# EXAMPLE - Date Functions - Min Max and Mode

This example shows how you can apply statistical functions on Datetime columns.

## Functions:

Item	Description
MINDATE Function	Computes the minimum value found in all row values in a Datetime column.
MAXDATE Function	Computes the maximum value found in all row values in a Datetime column.
MODEDATE Function	Computes the most frequent (mode) value found in all row values in a Datetime column.

## Source:

The following dataset contains a set of three available dates for a set of classes:

classId	Date1	Date2	Date3
c001	2020-03-09	2020-03-13	2020-03-17
c002	2020-03-09	2020-03-06	2020-03-21
c003	2020-03-09	2020-03-16	2020-03-23
c004	2020-03-09	2020-03-23	2020-04-06
c005	2020-03-09	2020-04-09	2020-05-09
c006	2020-03-09	2020-08-09	2021-01-09

## Transformation:

To compare dates across multiple columns, you must consolidate the values into a single column. You can use the following transformation to do so:

<b>Transformation Name</b>	Unpivot columns
<b>Parameter: Columns</b>	Date1, Date2, Date3
<b>Parameter: Group size</b>	1

The dataset is now contained in three columns, with descriptions listed below:

classId	key	value
Same as previous.	DateX column identifier	Corresponding value from the DateX column.

You can use the following to rename the `value` column to `eventDates`:

<b>Transformation Name</b>	Rename columns
<b>Parameter: Option</b>	Manual rename
<b>Parameter: Column</b>	value
<b>Parameter: New column name</b>	eventDates

Using the following transformations, you can create new columns containing the min, max, and mode values for the Datetime values in `eventDates`:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	MINDATE(eventDates)
<b>Parameter: New column name</b>	earliestDate

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	MAXDATE(eventDates)
<b>Parameter: New column name</b>	latestDate

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	MODEDATE(eventDates)
<b>Parameter: New column name</b>	mostFrequentDate

## Results:

classId	key	eventDates	mostFrequentDate	latestDate	earliestDate
c001	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c001	Date2	2020-03-13	2020-03-09	2021-01-09	2020-03-06
c001	Date3	2020-03-17	2020-03-09	2021-01-09	2020-03-06
c002	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c002	Date2	2020-03-06	2020-03-09	2021-01-09	2020-03-06
c002	Date3	2020-03-21	2020-03-09	2021-01-09	2020-03-06
c003	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c003	Date2	2020-03-16	2020-03-09	2021-01-09	2020-03-06
c003	Date3	2020-03-23	2020-03-09	2021-01-09	2020-03-06
c004	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c004	Date2	2020-03-23	2020-03-09	2021-01-09	2020-03-06
c004	Date3	2020-04-06	2020-03-09	2021-01-09	2020-03-06
c005	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c005	Date2	2020-04-09	2020-03-09	2021-01-09	2020-03-06
c005	Date3	2020-05-09	2020-03-09	2021-01-09	2020-03-06
c006	Date1	2020-03-09	2020-03-09	2021-01-09	2020-03-06
c006	Date2	2020-08-09	2020-03-09	2021-01-09	2020-03-06
c006	Date3	2021-01-09	2020-03-09	2021-01-09	2020-03-06