

# EXAMPLE - LISTIF Functions

This example illustrates you to identify and list all values within a group that meet a specified condition.

## Functions:

Item	Description
ANYIF Function	Selects a single non-null value from rows in each group that meet a specific condition.
LISTIF Function	Returns list of all values in a column for rows that match a specified condition.
WEEKDAY Function	Derives the numeric value for the day of the week (1, 2, etc.). Input must be a reference to a column containing Datetime values.

## Source:

The following data identifies sales figures by salespeople for a week:

EmployeeId	Date	Sales
S001	1/23/17	25
S002	1/23/17	40
S003	1/23/17	48
S001	1/24/17	81
S002	1/24/17	11
S003	1/24/17	25
S001	1/25/17	9
S002	1/25/17	40
S003	1/25/17	
S001	1/26/17	77
S002	1/26/17	83
S003	1/26/17	
S001	1/27/17	17
S002	1/27/17	71
S003	1/27/17	29
S001	1/28/17	
S002	1/28/17	
S003	1/28/17	14
S001	1/29/17	2
S002	1/29/17	7
S003	1/29/17	99

## Transformation:

In this example, you are interested in the high performers. A good day in sales is one in which an individual sells more than 80 units. First, you want to identify the day of week:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	WEEKDAY(Date)
<b>Parameter: New column name</b>	'DayOfWeek'

Values greater than 5 in `DayOfWeek` are weekend dates. You can use the following to identify if anyone reached this highwater marker during the workweek (non-weekend):

<b>Transformation Name</b>	Pivot columns
<b>Parameter: Rows labels</b>	EmployeeId,Date
<b>Parameter: Values</b>	ANYIF(Sales, (Sales > 80 && DayOfWeek < 6))
<b>Parameter: Max number of columns to create</b>	1

Before adding the step to the recipe, you take note of the individuals who reached this mark in the `anyif_Sales` column for special recognition.

Now, you want to find out sales for individuals during the week. You can use the following to filter the data to show only for weekdays:

<b>Transformation Name</b>	Pivot columns
<b>Parameter: Rows labels</b>	EmployeeId,Date
<b>Parameter: Values</b>	LISTIF(Sales, 1000, (DayOfWeek < 6))
<b>Parameter: Max number of columns to create</b>	1

To clean up, you might select and replace the following values in the `listif_Sales` column with empty strings:

```
[ "
" ]
[ ]
```

## Results:

EmployeeId	Date	listif_Sales
S001	1/23/17	25
S002	1/23/17	40
S003	1/23/17	48
S001	1/24/17	81
S002	1/24/17	11
S003	1/24/17	25
S001	1/25/17	40
S002	1/25/17	

S003	1/25/17	66
S001	1/26/17	77
S002	1/26/17	83
S003	1/26/17	
S001	1/27/17	17
S002	1/27/17	71
S003	1/27/17	29
S001	1/28/17	
S002	1/28/17	
S003	1/28/17	
S001	1/29/17	
S002	1/29/17	
S003	1/29/17	