

# Table manipulation functions

INTERMEDIATE DAX IN POWER BI



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# Table manipulation functions overview

## Previously seen functions

DISTINCT(<table> | <table>)

*Removes duplicate rows from a table or values from a column*

SELECTCOLUMNS(<table>, <name>, <expression>)

*Returns the selected columns from another table as a new table*

## New functions

ADDCOLUMNS(<table>, <name>, <expression>)

*Returns the input table appended with the selected columns from another table*

SUMMARIZE(<table>,  
<groupBy\_columnName>,  
<name>,  
<expression>)

*Returns a summary table for the requested totals over a set of groups*

# ADDCOLUMNS()

```
ADDCOLUMNS(<table>, <name>, <expression>)
```

*Returns the input table appended with the selected columns from another table*

```
ADDCOLUMNS(Fact_table,  
           "Profit",  
           Revenue - Costs)
```

# ADDCOLUMNS()

```
ADDCOLUMNS(<table>, <name>, <expression>)
```

*Returns the input table appended with the selected columns from another table*

```
ADDCOLUMNS(Fact_table,  
           "Profit",  
           Revenue - Costs)
```

Revenue	Costs	Profit
100	25	75
150	25	125

# ADDCOLUMNS()

ADDCOLUMNS(<table>, <name>, <expression>)

*Returns the input table appended with the selected columns from another table*

```
ADDCOLUMNS(Fact_table,  
           "Profit",  
           Revenue - Costs)
```

Revenue	Costs	Profit
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150	25	125

SELECTCOLUMNS(<table>, <name>, <expression>)

*Returns the selected columns from another table as a new table*

```
SELECTCOLUMNS(Fact_table,  
           "Profit",  
           Revenue - Costs)
```

Profit
75
125

# SUMMARIZE()

```
SUMMARIZE(<table>,  
          <groupBy_columnName>,  
          <name>,  
          <expression>)
```

*Returns a summary table for the requested totals over a set of groups*

# SUMMARIZE()

```
SUMMARIZE(<table>,
    <groupBy_columnName>,
    <name>,
    <expression>)
```

*Returns a summary table for the requested totals over a set of groups*

```
SUMMARIZE(Amounts,
    Amounts[Year],
    Amounts[Category],
    "Total Amount",
    SUM(Amounts[Amount]))
```

Year	Category	Amount
2019	Tickets	50
2019	Postcards	500
2020	Tickets	200
2020	Tickets	400

# SUMMARIZE()

```
SUMMARIZE(<table>,
    <groupBy_columnName>,
    <name>,
    <expression>)
```

*Returns a summary table for the requested totals over a set of groups*

Year	Category	Amount
2019	Tickets	50
2019	Postcards	500
2020	Tickets	200
2020	Tickets	400

```
SUMMARIZE(Amounts,
    Amounts[Year],
    Amounts[Category],
    "Total Amount",
    SUM(Amounts[Amount]))
```

Year	Category	Total Amount
2019	Tickets	50
2019	Postcards	500
2020	Tickets	600

# SUMMARIZE() best practices

- Created columns of `SUMMARIZE()` can give unexpected results based on context
- Best practice is to wrap `ADDCOLUMNS()` around `SUMMARIZE()` when creating new columns

```
SUMMARIZE(Amounts,  
          Amounts[Year],  
          Amounts[Category]),  
          "Total Amount",  
          SUM(Amounts[Amount])
```

```
ADDCOLUMNS(  
    SUMMARIZE(Amounts,  
              Amounts[Year],  
              Amounts[Category]),  
              "Total Amount",  
              SUM(Amounts[Amount]))
```

# **Let's practice!**

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# Table manipulations using DAX

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# **Let's practice!**

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