

# 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

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

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            "Profit",  
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```
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*

```
SUMMARIZE(Amounts,  
          Amounts[Year],  
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          SUM(Amounts[Amount]))
```

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

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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