



Project CALCULATE, FILTER & ALL

1) Use **CALCULATE** to create a new measure that evaluates the total quantity of Low-Fat products sold (**[Low-Fat Quantity Sold]**). What was the total Low-Fat quantity sold for "High Top" product brand products?

→ High Top : 10,635

2) Use **CALCULATE** and **ALL** to create a new measure that always returns the *overall* total quantity (**[Overall Total Quantity]**)

Measure

Table Name: Transactions

Measure Name: Overall Total Quantity

Value Description:

Formula: fx Check DAX Formula

=CALCULATE([Total Quantity], ALL(Transactions))

Category:

- General
- Date
- Number
- Currency
- TRUE\FALSE

Format: Whole Number

☒ Use 1000 separator (,)

OK Cancel

- Divide **[Low-Fat Quantity Sold]** by **[Overall Total Quantity]** to calculate a new measure named **[Low-Fat Sales %]**

Measure

Table Name: Transactions

Measure Name: Low-Fat Sales %

Value Description:

Formula:
$$=[\text{Low-Fat Quantity Sold}]/[\text{Overall Total Quantity}]$$

Category: General, Date, Number, Currency, TRUE\FALSE

Format: Percentage

Decimal Places: 1

☐ Use 1000 separator (,)

OK Cancel

- Update your PivotTable layout to show **[Low-Fat Sales %]** by *customer_country*. Which country accounts for the largest share of low-fat products sold? The smallest share?

3	Row Labels	Low-Fat Sales %
4	Canada	2.1%
5	Mexico	9.6%
6	USA	23.7%
7	Grand Total	35.4%
8		

→ **USA** (23.73%), **Canada** (2.07%)

3) Create a new Excel table named **Age_Threshold** in a new worksheet, with a column header named *Age_Threshold* and the following row values: **50, 60, 70, 80, 90, 100**.

- Load the table to the data model, but leave it disconnected from other tables
- Drag *Age_Threshold* into a PivotTable as a **slicer**
- Create a new measure to "harvest" the minimum slicer value selected (**[Minimum Age]**)

The screenshot shows the 'Measure' dialog box with the following fields:

- Table Name:** Age_Threshold
- Measure Name:** Minimum Age
- Value Description:** (empty)
- Formula:** `=MIN(Age_Threshold[Age_Threshold])`
- Category:** Number (selected from a list including General, Date, Number, Currency, TRUE\FALSE)
- Format:** Whole Number
- Use 1000 separator (,):** (unchecked)

Buttons at the bottom: OK, Cancel.

- Pull **[Minimum Age]** into the pivot and confirm that the values update with each slicer selection

The screenshot shows a slicer titled 'Age_Threshold' with the following values: 50, 60, 70, 80, 90, 100. The value 50 is highlighted, indicating it is the selected value.

- Create a new measure to calculate the total transactions for customers older than the selected threshold (**[Trans Above Age Threshold]**)

Measure

Table Name: Transactions

Measure Name: Trans Above Age Threshold

Value Description:

Formula: fx Check DAX Formula

```
=CALCULATE([Total Transections],
FILTER(Customer_Lookup, Customer_Lookup[age]
> [Minimum Age]))
```

Category:

- General
- Date
- Number
- Currency
- TRUE\FALSE

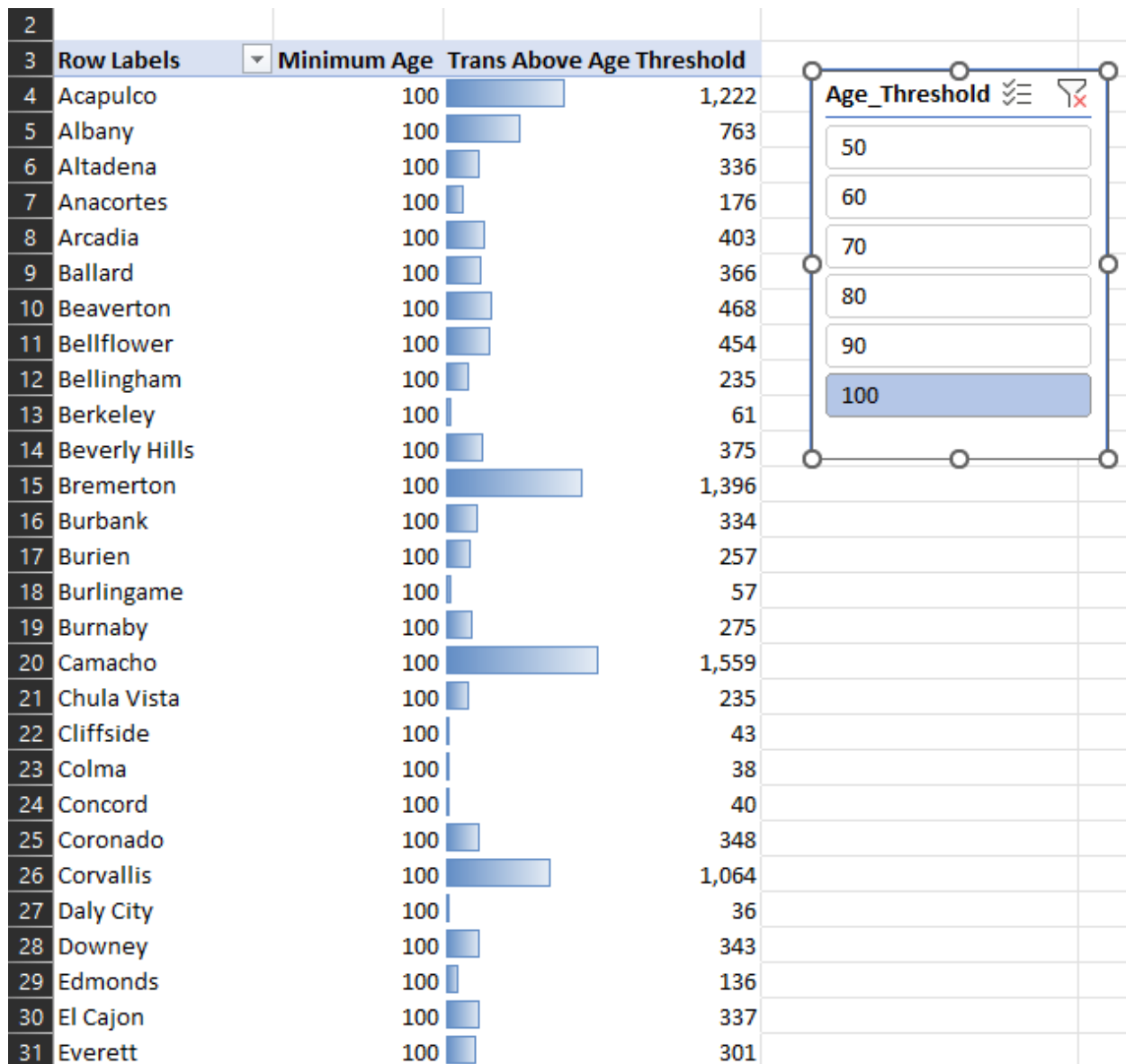
Format: Whole Number

☒ Use 1000 separator (,)

OK Cancel

4) Update your PivotTable layout to show **[Minimum Age]** and **[Trans Above Age Threshold]** on values, with *customer_city* on rows.

- Add **conditional formatting** to bring the transaction values to life -- your choice!



- How many transactions were there in **Coronado** among customers above the age threshold of **80**? How about in **Royal Oak**, among customers older than **100**?

→ Coronado , 649

→ Royal Oak , 39