

DATA ANALYTICS

ASSIGNMENT 4

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Challenge: Create calculations and LODs using Global Dataset in
Tableau

Calculations:

1. Model: Trend line and Reference line with the average

Trend Lines Options

Model Type

☐ Linear

☒ Logarithmic

☐ Exponential

☐ Power

☐ Polynomial Degree: 3

Factors

Build separate trend lines based on the following dimensions:

Options

☒ Show tooltips

☐ Show confidence bands

☒ Allow a trend line per color

☒ Show recalculated line for highlighted or selected data points

☐ Force y-intercept to zero

OK

Edit Reference Line, Band, or Box

Line

Band

Distribution

Box Plot

Scope

☒ Entire Table

☐ Per Pane

☐ Per Cell

Line

Value: SUM(Sales)

Average

Label: Computation

Tooltip: Automatic

Line only

SS

Formatting

Line:

Fill Above:

Fill Below:

☒ Show recalculated line for highlighted or selected data points

OK

Visualization:



2. Model: Used SUM(Quantity) Quick Table Calculation>Percentile Quantity>Filter>Range from 0.2 to 1

This implies we are selecting only from the range 20% to 100%

Filter [Percentile of Quantity]

Range of values

0.2 1

0% 100%

☐ Include Null Values

Reset OK Cancel Apply

Visualization:



Level of Detail (LOD):

1. Model:

LOD Expression:

```
IF(AVG([Sales])>500 AND AVG([Profit])>50)
THEN 'Accept'
ELSE 'Not'
END
```



Visualization:

Sheet 10

Sub-Category	Africa	APAC	Canada	EMEA	EU	LATAM	US
Accessories	152	298	125	184	361	215	218
Appliances	20	23	88	13	74	61	54
Art	62	94	86	55	112	88	34
Binders	8	11	15	2	21	11	8
Bookcases	426	809	441	413	751	476	504
Chairs	306	528	187	219	482	328	582
Copiers	467	259	574	422	785	503	2,199
Envelopes	17	38	57	46	31	62	15
Fasteners	26	42	27	27	47	58	14
Furnishings	11	25	8	8	39	8	14
Labels	4	3	5	2	7	4	13
Machines	184	535	628	282	529	388	1,846
Paper	66	88	118	50	86	61	57
Phones	10	10	22	1	20	18	25
Storage	432	706	304	388	634	461	571
Supplies	67	118	194	10	66	48	30
	264	264	212	153	268	177	269
	20	30	58	5	21	25	25
	58	202	77	88	138	71	245
	4	4	14	4	34	44	4

2. Model:

LOD Expression:

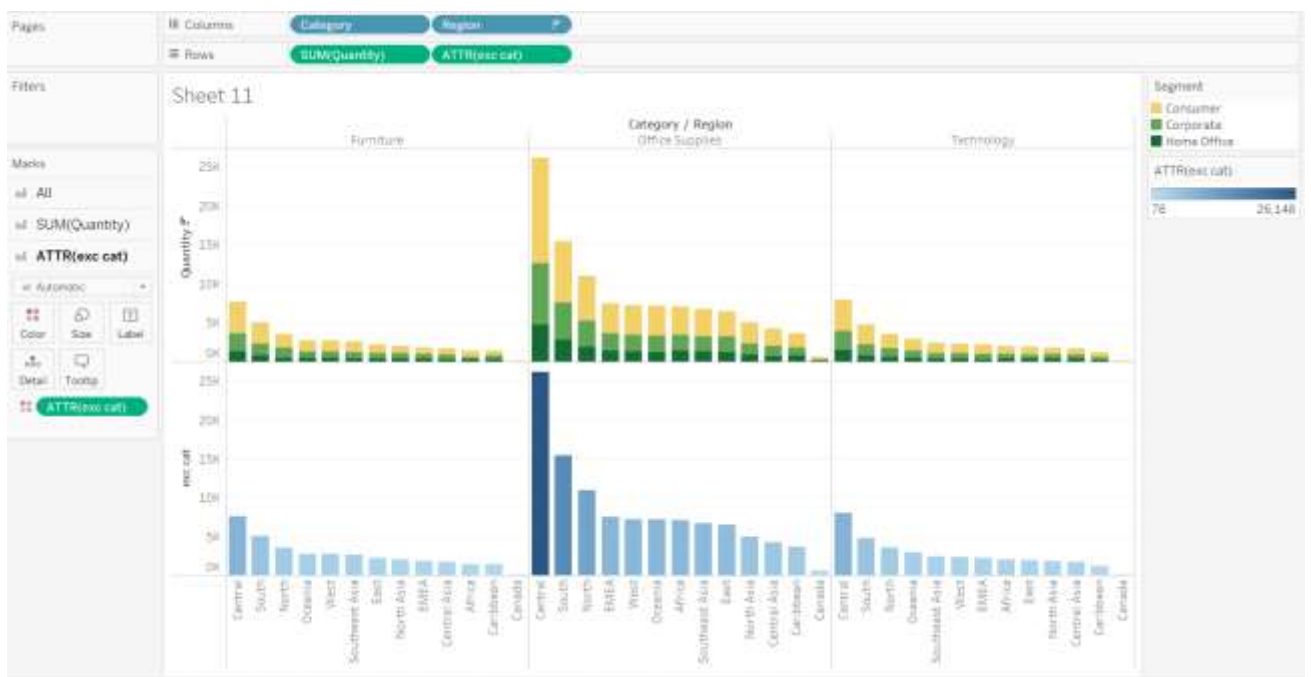
{ EXCLUDE [Segment]: SUM([Quantity]) }

✕

```
{ EXCLUDE [Segment]: SUM([Quantity]) }
```

The calculation is valid. 1 Dependency ▾ Apply OK

Visualization:



As we can observe here in the first row we passed the segment in colour and in the second row we passed our new calculated field “exc cat”. That is the reason we are not having a specific segment in the second visualization because we have excluded it in the LOD expression.

3. Model:

LOD Expression:

```
{ INCLUDE [Region]:AVG([Profit])}
```

avg profit in region

X

{ INCLUDE [Region]:AVG([Profit]) }

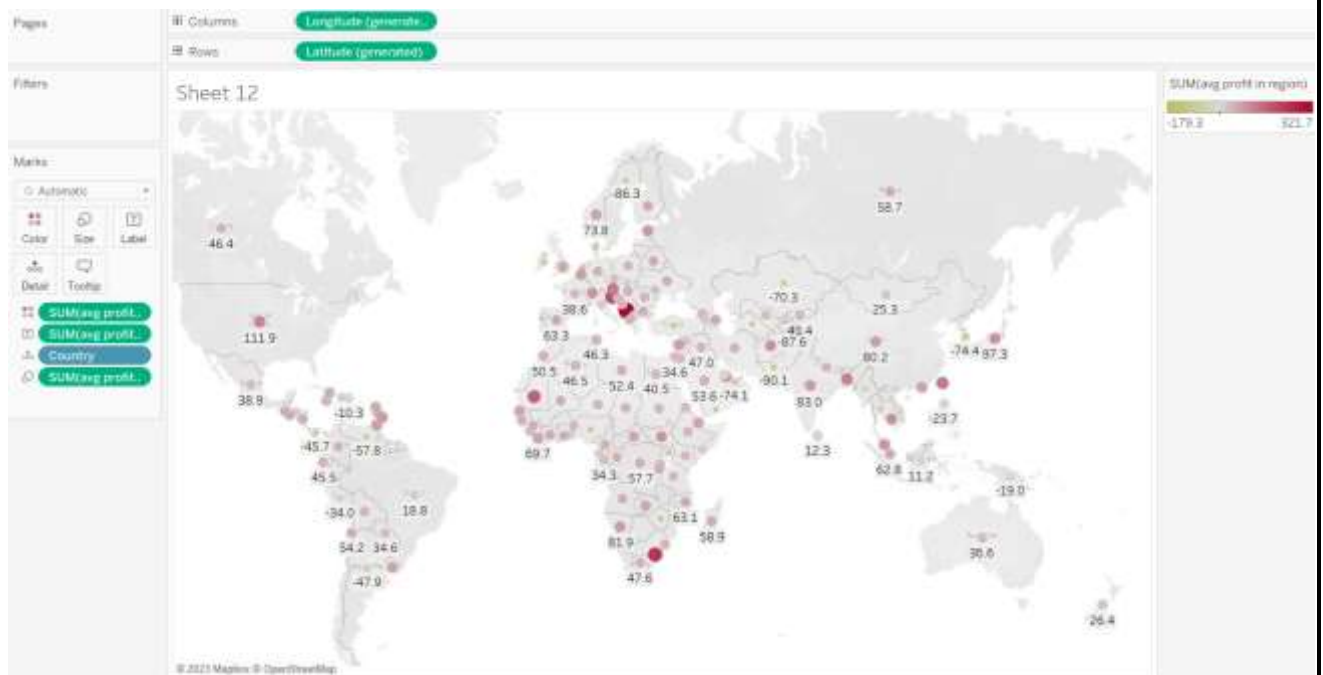
The calculation is valid.

1 Dependency ▾

Apply

OK

Visualization:



We are including the region in average profit where the default minimum value is -179.3 and the maximum value is 321.7.