

PROJECT 3

Use Parameters to Make Views More Interactive

Create the parameters

These steps use the Superstore sample to create new parameters.

1. In the Data pane, click the drop-down arrow in the upper right corner and select **Create Parameter**.
2. In the Create Parameter dialog box, complete the following steps:
 - Name the parameter so that viewers can tell what changing it will do. This example uses Select Column 1 Heading.
 - For Data type, select String.
 - For Allowable Values, select List, type None as the first value in the list, and then press Enter.
 - Complete the list by typing the names of the additional dimension fields that you want to expose through the parameter.

Note: This example uses the customer name, customer segment, region, department, and category fields. These are all dimensions of the same data type (string). If you wanted to include a measure such as profit in this list, one option would be to convert the measure to a string value. You would do this when you build the calculated field, using the `STR()` function. This article covers only the single data type scenario.

The Display As aliases default to the field name, and for this

exercise you can leave them as they are.

Create Parameter

Name: Comment >>

Properties

Data type:

Current value:

Value when workbook opens:

Display format:

Allowable values: ☐ All ☒ List ☐ Range

List of values

Value	Display As
None	None
Customer Name	Customer Name
Customer Segment	Customer Segment
Region	Region
Department	Department
Category	Category
Add	

☒ Fixed Add values from ▶

☐ When workbook opens None ▼

Clear All

OK Cancel

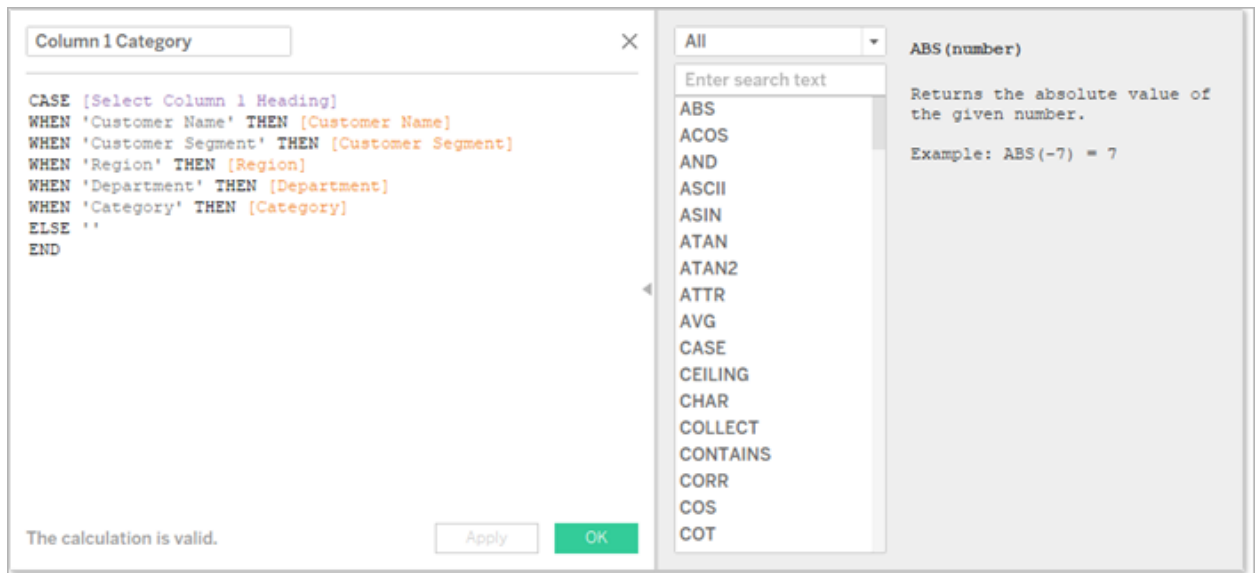
- Click OK to return to the Calculated Field dialog box.
- 3. Repeat the previous step to create the following additional parameters:
 - Select Column 2 Heading
 - Select Row 1 Heading
 - Select Row 2 Heading
- 4. Tip: Instead of typing each value in the list, click Add values from > Parameters to add them from Select Column 1 Heading.

Create the calculated fields

These steps use the Superstore sample to build the calculated fields that will take advantage of your parameters.

1. In the Data pane, click the drop-down arrow in the upper right corner and select **Create Calculated Field**.
2. In the Calculated Field dialog box, for **Name**, type **Column 1 Category**.
3. In the Calculated Field dialog box, for **Formula**, build the following calculation:

```
CASE [Select Column 1 Heading]
WHEN 'Customer Name' THEN [Customer Name]
WHEN 'Customer Segment' THEN [Customer Segment]
WHEN 'Region' THEN [Region]
WHEN 'Department' THEN [Department]
WHEN 'Category' THEN [Category]
ELSE ''
END
```



Confirm that the status message indicates that the formula is valid, and then click OK.

Note: ELSE accounts for the None value that you included in the parameter, and it returns an empty string.

4. Create three more calculated fields, one for each of the additional parameters you created:

Parameter name	Calculated field name
Select Column 2 Heading	Column 2 Category
Select Row 1 Heading	Row 1 Category
Select Row 2 Heading	Row 2 Category

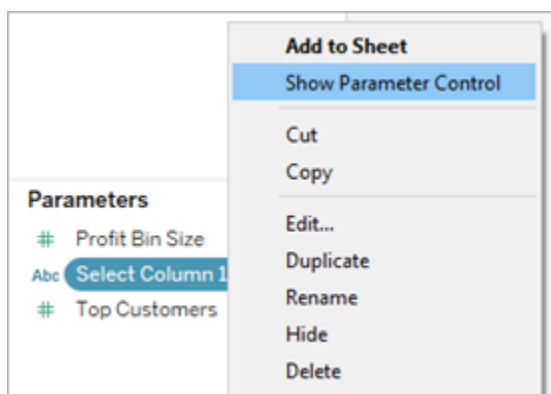
5.

The basic formula for each calculated field is the same as in the previous step, except that you reference a different parameter in each CASE statement.

Give viewers a way to interact with views

Next, expose the parameter control so users can select the categories they want to display.

- For each parameter you created, do the following:
Under Parameters, right-click the parameter and select Show Parameter Control.



- From the Data pane, drag the calculated fields you created to the Columns and Rows shelves.
- From the Data pane, drag a measure to the view. In this example, Sales is placed on Label on the Marks card.

4. Test your parameters by selecting fields in the parameter controls.

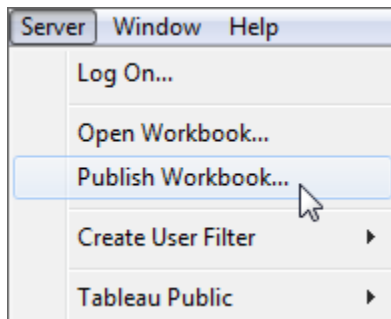
Tips:

- Sort the dynamic dimension fields alphabetically.
- Hide field labels for rows and columns.

The screenshot shows a Tableau worksheet with a pivot table. The columns are categorized by 'Furniture' and 'Office Supplies'. The rows are categorized by 'Consumer', 'Corporate', 'Home Office', and 'Small Business'. The data is further broken down by 'Region' (Central, East, South, West). The 'Marks' shelf contains 'SUM(Sales)'. On the right, there are four parameter controls: 'Select Column 1 Heading' (Category), 'Select Column 2 Heading' (Department), 'Select Row 1 Heading' (Region), and 'Select Row 2 Heading' (Customer Segment).

		Furniture				Office Supplies		
		Bookcases	Chairs & Chairmats	Office Furnishings	Tables	Appliances	Binders and Binder Accessories	Envelopes
Consumer	Central	\$13,744	\$77,482	\$21,336	\$63,355	\$15,283	\$33,412	\$1,929
	East	\$26,188	\$76,484	\$20,717	\$63,102	\$9,221	\$36,127	\$1,908
	South	\$11,664	\$29,831	\$12,669	\$35,076	\$24,097	\$27,154	\$1,481
	West	\$41,028	\$121,585	\$14,808	\$67,400	\$15,207	\$6,937	\$32,326
Corporate	Central	\$38,255	\$139,235	\$41,303	\$123,086	\$58,497	\$56,719	\$16,556
	East	\$32,831	\$110,812	\$30,666	\$95,268	\$49,228	\$89,138	\$17,314
	South	\$48,177	\$57,515	\$16,653	\$55,407	\$24,714	\$31,254	\$3,318
	West	\$142,822	\$100,158	\$26,880	\$90,218	\$35,501	\$48,044	\$7,275
Home Office	Central	\$37,953	\$71,701	\$53,555	\$52,917	\$57,314	\$57,364	\$3,197
	East	\$7,688	\$58,804	\$26,050	\$100,094	\$30,957	\$41,971	\$11,344
	South	\$13,013	\$39,512	\$47,167	\$86,505	\$22,067	\$32,739	\$3,667
	West	\$20,750	\$42,817	\$70,414	\$47,993	\$14,417	\$16,396	\$4,373
Small Business	Central	\$27,631	\$39,492	\$19,362	\$38,810	\$38,752	\$41,496	\$7,324
	East	\$17,596	\$134,088	\$17,551	\$46,125	\$45,180	\$84,031	\$22,507
	South	\$10,448	\$34,641	\$10,890	\$37,095	\$3,900	\$16,810	\$6,551
	West	\$17,707	\$30,428	\$14,604	\$59,471	\$12,389	\$18,990	\$6,852

- 5.
6. Reset all parameters to None and publish the workbook to Tableau Server.



Viewers can set up their own reports, save their parameter settings, and share views with others.