ASSIGNMENT - TABLEAU

1. Using the orders table from sample superstore dataset, Select the correct ordering of steps to find out state-wise percentage contribution to total sales using Fixed LOD

Sample superstore dataset link

Steps:

1. Create a fixed LOD calculation { FIXED :SUM([Sales]) } that will get the total sales and name it as Total Sales
2. Create a calculated field that computes the percentage sales contribution SUM([Sales])/SUM([Total Sales]) name it % sales
3. Drag state field to rows shelf
4. Drag %sales field to text marks card shelf
5. Click on %sales field and click on format -> in the default tab under number select percentage up to 2 decimal place

a) 1,2,3,4,5
b) 3,1,2,4,5
c) 5,4,3,2,1
d) All of the above

2. For India find which discipline has won the 2nd highest number of medals
Modified Summer Olympic dataset link

Steps:

1. Use All medalist table from Modified_Summer_Olympic_medallists_1896-2008 dataset
2. Perform inner join between All medalist tableandTeam events fixed all years total table on column NOC
3. Build a visualisation using fields, country and discipline.
4. Using country field filter for country India
5. Use the count of medals field on text marks card shelf

a) Hockey
b) Athletics
c) Shooting
d) Boxing

3. Using orders table from sample superstore dataset
Create a visualisation to determine whether older customers tend to contribute more to sales or not, and then select the correct options

Sample superstore dataset link

Steps:

1. Create a calculated field name it customer acquisition date-> Enter the formula { FIXED [Customer ID]:MIN([Order Date])}-> click ok
2. Drag the order date field to the column shelf
3. Drag the sales field to the rows shelf
4. Drag the customer acquisition date field to color marks card shelf->change the mark type to bar
5. Drag the sales field to label marks card shelf-> add a quick table calculator percent of total and compute using table down

a) The correct ordering of steps is 1 -> 2 -> 3 -> 4 -> 5
b) The correct ordering of steps is 2 -> 3 -> 4 -> 5 -> 1
c) In 2017, customer with acquisition date of 2014 made highest contribution to sales
d) We can conclude that older customers contribute more to sales

4. Using orders table from sample superstore dataset and include LOD
From the below given states, determine which state has the highest average top-customer sales.

Sample superstore dataset link

Steps-

1. Create a calculated field that computes the maximum sales value for each customer and apply average aggregation on top of it, name it average of top customer sales.
2. Drag latitude field to rows shelf and longitude field to column shelf->drag state field to details shelf->select marks type as map->click on edit location->click on country->from field select country->click ok->drag state field to label marks card shelf
3. Drag the average of top customer sales field to the color marks card shelf and also to label marks card shelf

a) Wyoming
b) Oregon
c) California
d) Texas

5. Using orders table from sample superstore dataset, Create a plot that compares the average sales of each subcategory to the average sales of the respective product category, and select the correct options

Sample superstore dataset link

Steps:

1. Drag the category and subcategory fields to the rows shelf
2. Create a calculated field name it average sales by category and enter the formula { EXCLUDE [Sub-Category]:AVG([Sales])}
3. Click on show me and select the text table chart
4. Drag measure names field to filter shelf and select only fields sales and average sales by category.
5. Drag measure names filed to the columns shelf.
6. Drag measure values field to text marks card shelf
7. Select average aggregation for the sales field under the measure values area.

a) The average sales for the furnishing subcategory were lower than the average sales for the furniture category.
b) The average sales for the binders subcategory were lower than the average sales of office supplies category.
c) The average sales for the machines subcategory were lower than the average sales of technology category.
d) All the given options.

6. For India find the total number of medals won and CO2 per capita (metric tons) emission

World bank CO2 dataset link

Modified summer Olympic dataset link

Steps:

1. Use CO2 per capita pivoted table from World_Bank_CO2 dataset
2. Add new data source
3. Select Team events fixed all years total table from Modified_Summer_Olympic_medallists_1896-2008 dataset
4. Edit Blend relation and add a custom blend relation between the two data sources on country name
5. Use the country name field and CO2 per capita (metric tons) field from the primary data source [CO2 per capita pivoted table] in the view
6. Filter for country India using Country name field from primary data source [CO2 per capita pivoted table]
7. Use totals field from secondary datasource [Team events fixed all years total table] in the view

a) 50.2 metric tons and 20 medals
b) 38.99 metric tons and 50 medals
c) 38.99 metric tons and 20 medals
d) None of the above

7. Which country got the highest number of silver medals in hockey
Modified summer Olympic dataset link

Steps

1. Use All medalist table from Modified_Summer_Olympic_medallists_1896-2008 dataset
2. Perform inner join between All medalist table and Team events fixed all years total on NOC column to get country names
3. Build a visualization using country field from Team events fixed all years total table and discipline, medal fields from All medalist table.
4. Perform filter for discipline field=Hockey
5. Use count of medals field from All medalist table on text marks card shelf

a) India
b) USA
c) Pakistan
d) Netherlands

8. Select correct options that follow a logical step to get the total number of unique orders returned for each year
sample superstore dataset link

Options:

1. Perform inner join between orders and return tables on order id -> drag order date to column shelf -> drag order id to rows shelf and convert it to measure and select count distinct as an aggregation type -> select marks type as bar
2. Perform inner join between orders and return tables on order id -> drag order date to column shelf -> drag order id to text marks card shelf and convert it to measure and select count distinct as an aggregation type.
3. Perform inner join between orders and return tables on order id -> drag order date to column shelf -> drag order id to rows shelf and convert it to measure and select count as an aggregation type -> select marks type as bar

a) 1,2
b) 3,1
c) 1,2,3
d) 3,2

9. Using the orders table from the sample superstore dataset, Select Correct options that follow logical steps to find the total number of unique products in each subcategory.

sample superstore dataset link

Options:

1. Drag subcategory field to rows shelf -> Drag product name to text marks card shelf -> convert product name to measure and select count distinct aggregation.
2. Drag subcategory to column shelf -> drag product name to details marks card shelf -> create a parameter with integer data type rest all field remains as it is -> create a parameter action where source sheet=current sheet, target parameter=newly created parameter, source field= product name and aggregation =count distinct-> set value= 1 when the selection is cleared-> In the view edit the title and click on Insert and select Parameters.Parameter1 and click ok-> click on any subcategory header in the view.
3. Drag subcategory field to rows shelf-> drag product name to text marks card shelf-> convert product name to measure and select count aggregation.

a) 1,2
b) 2,3
c) 1,2,3

10. Using the orders table from the sample superstore dataset,
Determine the total combined sales for the states of California, Texas, and Washington, as well as the sales amount excluding these states.

sample superstore dataset link

Steps:

1. Create an empty set for the state field and name it the state set
2. In sheet 1 create a map visualization where all the states are displayed (Select mark type as map)
    - Note: If in the map visualization you see unknown then click on it->select edit location->for country/region click on the dropdown and select from field and select country field and click ok.
3. Create another sheet and create a visualization using the state set and sales field.
4. In sheet 1 create change set values action where the source sheet=sheet 1, target set= state set, run action on=select, running the action will= Assign values to set and clearing the selection will= remove all values from set and click on ok
5. Select the above-mentioned states in sheet 1 and go to sheet2 to get the answer.
    - Note:
        - For multi-selection in Windows OS hold down CTRL and select respective states.
        - For multi-selection in MAC OS hold down Command and select respective states.
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a) Including states: 766517 & Excluding states: 1530684
b) Including states: 566517 & Excluding states: 1730684
c) Including states: 659984 & Excluding states: 1637217
d) None of the given options

Case Study : Analyse the Data set given below and answer the below questions!
IPL_Cricket dataset (Shared on Whatsapp group)

1. How many unique umpires were there throughout all seasons?
2. Who has won the most man of the match awards?
3. How many games were played in the Bengaluru venue?
4. What is the toss win % of RCB out of all their Tosses?
5. Which city hosted the maximum number of matches and which city has hosted the Minimum number of matches?
6. How many matches were played in the year 2015?