Tableau Challenge

NOTE: You are given tasks for both Informatica and Tableau. Each part has its own input files, and these two parts are independent. You can perform these parts in any order, and both should be completed.

You are given a data set which contains the data about food and the purchase details of the food. As a Tableau developer, you need to use the data to perform the required visualizations to the given dataset.

To perform this task, you are provided with the files required in the **"~Desktop/Project/minihack-informatica-tableau-food-challenge"**.

Input files:

minihack-informatica-tableau-food-challenge: This folder is available inside the Project folder on the desktop.

Note:

- The **minihack-informatica-tableau-food-challenge/inputfile/tableau** folder consists of files named as **food_cleaned_data.csv** dataset that you shall perform the visualizations in an empty Tableau workbook with the name HackBook.twb.
- The **Output_Data/tableau** folder is an empty folder where you can save the output data after the visualizations are performed.

after the visualizations are performed.

Instructions

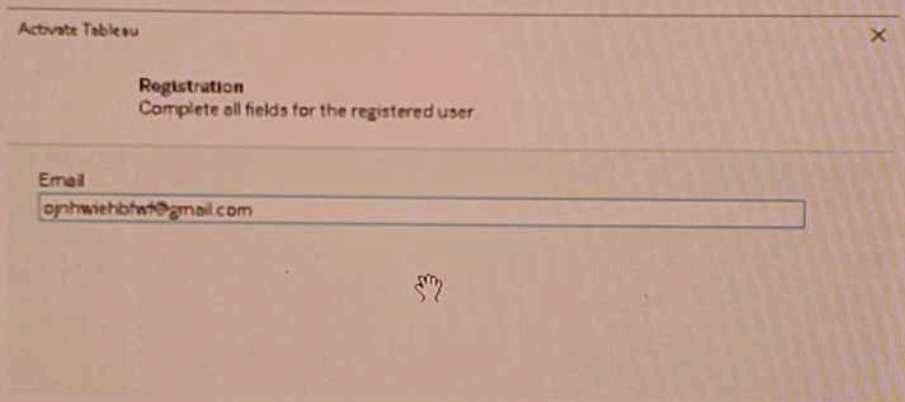
Follow the below steps to export the data in tableau:

- To export your data, go to '**Analysis → View Data → Download**'
- Save your file with the name – **<mention as in problem statement>**
- The path where you should save the data for the Sheet is

  '/Desktop/Project/minihack-informatica-tableau-food-challenge/Output_Data/tableau/'

Let's Begin!!!!

Follow the instructions given below to transform the cleaned csv data into visualizations.



1. Double click **HackBook.twb** workbook will open in Tableau Desktop (**14-day trial version**) software
2. When prompted for user information, enter random details and click **Proceed**.
3. Create the sheets with the given chart titles following the instructions.

Sheet 1: Delivery_Outcome

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Chart Title: City Delivery Outcome

Rows	Columns	Mark
Order Count	City	Bar

1. Create Calculated Fields:
   a. **Order Count** = Find the distinct count of orders using Order Id.
   b. **Order Value** = Find the product of Quantity and Price.
   c. **AOV (Per City)** = Total Order Value / Order Count
2. Use Quick Table Calculation for Order Count in Rows as **"Percent of Total"** and compute the data using "Specific Dimensions" which should be **"Delivery Status"**.
3. Add a "%" symbol at the end of the Order Count values, formatted to one decimal place.
   [HINT: Use Format]
   [For Example: If Order Count = 34.210 then the output must be 34.2%]
4. Differentiate the chart using the Delivery Status in color and use AOV (Per City) in Label with a suffix as " - AOV".
   [NOTE: Make sure the AOV (Per City) data is a 1 decimal value]
   Finally, export the data into "**csv**" in the path **'/Desktop/Project/minihack-informatica-tableau-food-challenge/Output_Data/tableau/'** named as "**Delivery_Outcome.csv**".

NOTE: If you don't know how to export the data as a csv file you can refer the

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SAMPLE OUTPUT :

Note: The sample output is given for your reference it may vary with the actual output

Sheet 2: Revenue_vs_Experience

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Chart Title: Monthly Revenue vs Customer Experience by City

Rows	Columns	Mark
Order Value	Month (Order Month)	Area

1. Create a calculated field:
    a. **Order Month** = Truncate the month from Order Date.
    b. **Customer Type** = Set flag **"New Customer"** when minimum of Order Date for each Customer ID equals Order Date, otherwise set flag as **"Returning Customer"**
2. Filter the chart using the year of Order Data as **"2024"** and show the filter in dropdown.
3. Differentiate the chart using City in color and in Label to analyze the order value of each city.
4. Use Customer Type in detail and average of Rating in label for further analysis.
   [NOTE: Average of Rating values must be a 1 decimal value]

Finally, export the data into "**csv**" in the path '**/Desktop/Project/minihack-informatica-tableau-food-challenge/Output_Data/tableau/**' named as "**Revenue_vs_Experience.csv**".

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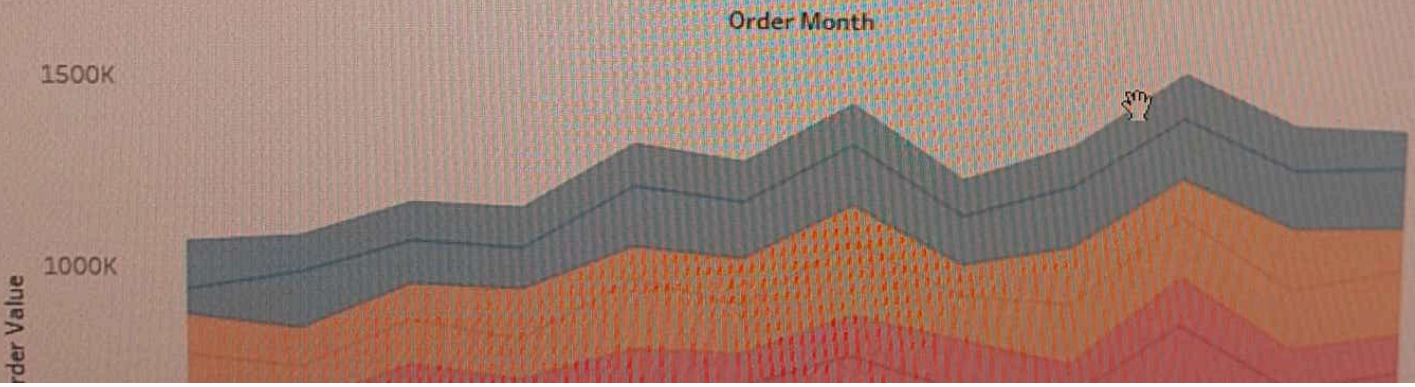
SAMPLE OUTPUT :



Instructions.

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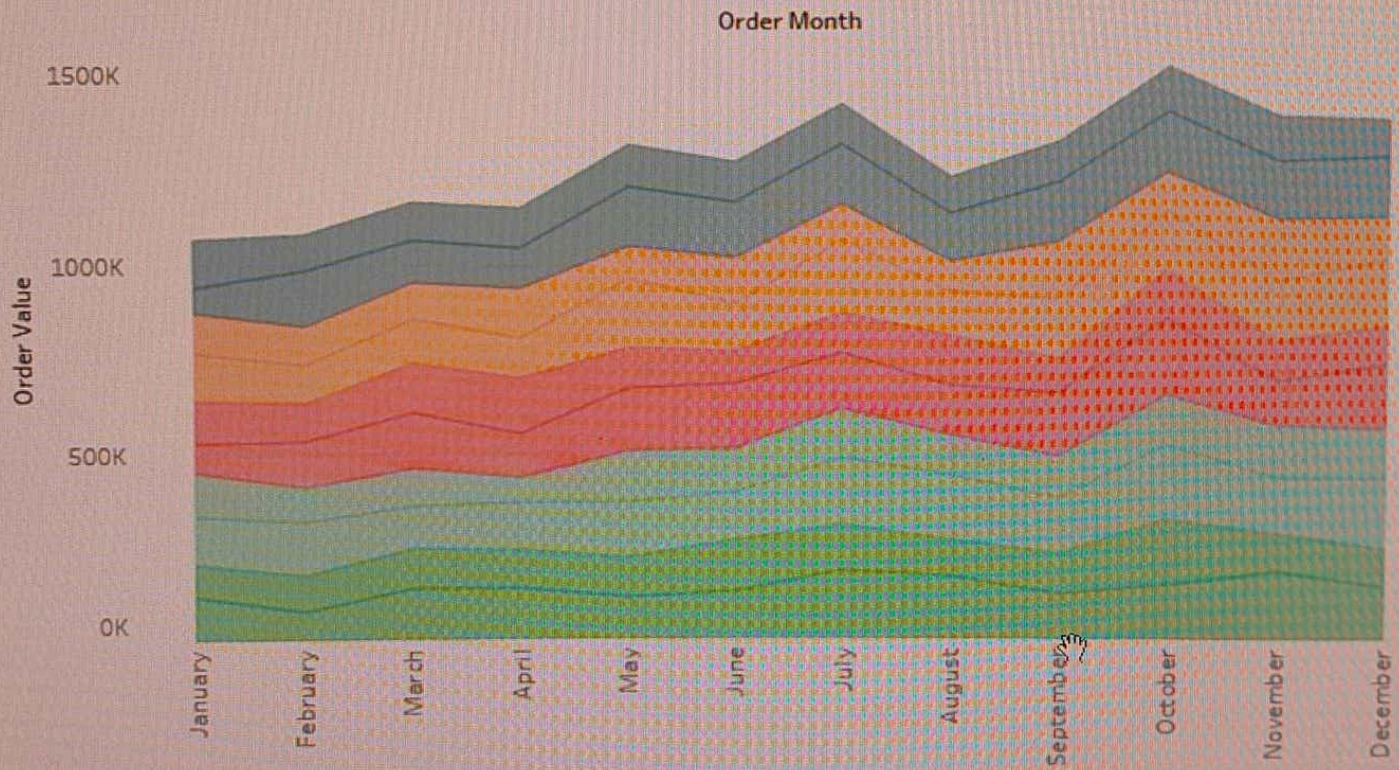

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Sheet 3: Restaurant_Performance

Chart Title: Restaurant Month Wise Performance

Rows	Columns	Mark
Restaurant Name	Month(Order Month)	Square

1. Create Parameter:
    a. **Select Metric:** Create a list of string values "Average Rating", "Total Revenue" and "Total Orders"

2. Create a calculated field named as **"Selected Measure"** with the following conditions:

2. Create a calculated field named as **"Selected Measure"** with the following conditions:

Select Metric	**Flag**
Average Rating	AVG(Rating)
Total Revenue	SUM(Order Value)
Total Orders	COUNTD(Order Id)

3. Filter the chart using Category as "Fast Food" and show the filter in dropdown.
4. Differentiate the chart using **Selected Measure** in color and in Label.
5. Order the Restaurant Name using average of Rating in descending order.
6. Change the color for **Selected Measure** to **Temperature Diverging** and add borders with black color.
   Finally, export the data into "**csv**" in the path '**/Desktop/Project/minihack-informatica-tableau-food-challenge/Output_Data/tableau/**' named as "**Restaurant_Performance.csv**".

   NOTE: If you don't know how to export the data as a csv file you can refer the Instructions.

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Order Month

Resta..	January	February	March	April	May	June	July	August	Septemb..	October	Novem
McDonald's	3.0408	3.0816	2.8889	3.0000	2.9583	3.0714	3.0847	3.0000	3.1311	3.4789	2.9
Burger King	3.1803	3.1220	3.1311	2.7021	3.0000	2.9808	2.9565	2.8276	3.1923	3.0000	3.0
KFC	3.0000	3.4211	2.7021	3.1190	2.8367	3.0526	3.0926	2.8936	3.0222	2.9649	2.8
Pizza Hut	2.9038	3.2031	3.1429	3.1250	2.7925	2.8372	2.8529	2.9302	2.9302	3.1875	3.0
Subway	2.9333	3.0217	3.0426	3.0238	3.1481	3.2857	3.0667	2.7857	3.0909	3.0000	3.0

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Validation:

- Before closing the environment, make sure that you have saved all your visualizations into the HackBook.twb by going into **File->Save**
- Before closing the environment, ensure that all these output files are saved in the local directory with the output obtained after performing the visualizations. **'/Desktop/Project/minihack-informatica-tableau-food-challenge/Output_Data/tableau'**
  1. **Delivery_Outcome.csv**
  2. **Revenue_vs_Experience.csv**
  3. **Restaurant_Performance.csv**
- Right click on **sample_test.ps1** and click **'Run with Powershell'** to run the sample score.

Congratulations!!! You have completed your challenge. Sit, Relax & Wait for the Result