**Power BI Project: Hot\Cold Delivery**

**Project Description:** Hot\Cold Delivery is a project inspired from food delivery services. Food Delivery has started with the invention of phones and progressed with the development of the Internet to have different applications on smartphones such as Uber eats, DoorDash, InstaCart... Although that the technology has evolved so much we still we have warm meals such as soup delivered cold, or cold meals such as ice-cream delivered warm due to the time and distance of delivery. This problem can be solved by extending these smart applications to food trucks who deliver food directly to you at the desired temperature.

The purpose of this project is to understand the main factors that drive customer to use this service. The analysis should be based on 12 months of survey data.

**Dataset Information:** You are required to research food delivery services to find the different fields of data for customers complaining of food delivered at an undesired temperature with customers having their meals at a desired temperature, the maximum number of customers should not exceed 10,000.

The project involves creating a dashboard (report page) based on the supplied data set, the objective of the report is-

* Loading the datasets in the Power BI desktop.
* Perform data cleaning and data transformation if required.
* Creating the required table Using Power BI DAX.
* Building the data model and creating the relationship based on the key attribute.
* Creating multiple report page (Dashboard) based on the KPI’s.
* Apply different type of formatting options if required.
* Publish the report into Power BI services.
* Configure for auto refresh.
* Create a dashboard based on the published report in Power BI services.

**Data transformation and classification:** Load the provided datasets into Power BI desktop and perform the following activities-

* Make sure all the columns from the table have been imported into the Power BI Desktop.
* Perform data cleaning and transformation, make sure table contains the valid data (remove the redundant data from the tables).
* Rename the table or columns, if required.
* Change the column data type, if required.
* Create a Date table with the following columns using DAX formula-
* Date (Date datatype, ex- 01-Jan-2020)
* Month (String datatype, ex- Jan, Feb, Mar, etc.)
* Year (Int datatype, ex- 2020)
* Quarter (String datatype, ex- Q1, Q2, etc.)
* Day (Int datatype, ex- 1, 2, 3, etc.)
* Create the relationship based on the Key attributes-
* Date (Date) 🡪 Food Delivery (Effective To Date)
* Create a calculated field “Customer Gender” from Gender (if Gender=”M” then “Male” else “Female”).

**Report Page Information:** Create multiple report page information based on the following requirements-

* **Landing page:** Create a landing page, when anyone browse this report landing page is the default page will be displayed. Landing page consists of the following objects-
* Buttons contains a hyperlink to navigate to the different report pages.
* Background image which is related to Hot/Cold Delivery.
* Also provide the project group name with individual information’s.
* **Delivery by Date:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity. Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Meal Name:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Location:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Temperature:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Customer Class Subscription:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Meal price:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s
* **Delivery by Quantity:** Create a report page which contains the following information’s-
  + Place the slicer for: Date, Delivery Meal Name, Location, Delivery Temperature, Customer Class Subscription, Meal price, Quantity.
  + Report Title (Hot\Cold Delivery)
  + Button top navigate to the home page or Next page
  + Card visual, which display the total based on the KPI’s
  + Bar chart visual, display the data based on the KPI’s
  + Pie Chart visual based on the KPI’s
  + Line chart visual which displays the trend based on the KPI’s

**KPI’s Information:** Calculate the KPI’s value using DAX formula based on the following information’s-

1. Total Number of Customers: Count of Customer from the survey table.
2. Total Number of meals Sold: Sum of “Number of Meals” from survey table.
3. Average Number of meals per Customer: Average of “Number of Meals”.
4. Total Sale per Customer: The product of the number of meals with the meal price.
5. Total Sales: Sum of “Total Sales per Customer” from survey table.
6. Average Sale per Customer: Average of “Sales” from survey table.
7. Total Number of Claims: Sum of “Claims” from survey table.
8. Total Amount of refunded meals: Sum of “Refunded” from survey table. (count)
9. Average Refund per Customer: Average of “Refunded Customer” from survey table.
10. Total Number of Open Complaints: Sum of “Number of Open Complaints” from survey table.
11. Total Refund Amounts: Sum of “Amount Refunded” from survey table.
12. Average Monthly Subscription price: Average “Monthly Premium” from survey table.
13. Total Monthly Subscription price: Total “Monthly Premium” from survey table.
14. Total Basic Subscriptions: Count of Customer where Subscription = “Basic”.
15. Total Premium Subscriptions: Count of Customer where Coverage = “Premium”.
16. Total Suburban Customer's: Count of Customer where Location Code= “Suburban”.
17. Total Rural Customer's: Count of Customer where Location Code= “Rural”.
18. Total Urban Customer's: Count of Customer where Location Code= “Urban”.
19. Total Large Quantity Meals: Count of Customer where Meal Quantity= “Large”.
20. Total Small Quantity Meals: Count of Customer where Meal Quantity= “Small”.
21. Total Large Meal Price: Count of Customer where Meal Price= “Large”.
22. Total Large Meal Price: Count of Customer where Meal Price= “Small”.
23. Pie chart: Total Number of Customers by Subscription Type.
24. Donut chart: Total Number of Customers by Customer Gender. (If possible)
25. Pie Chart: Total Number of Customers Refunded.
26. Donut Chart: Quantity of meals.
27. Line Chart: Total price of meals sold across each Month.
28. Area Chart: Average price of refunds across each Month-Year.
29. Pie Chart: Total Number of Sales.
30. Bar Chart: Total Revenue Generated by Customer Type.
31. Tree Map: Average Meals Sold by Customer Type across each Month.
32. Line Chart: Total Refund Amount by Customer Type across each Date (Year/Qtr/Month/Day).
33. Pie Chart: Total Number of Customers by Subscription type.
34. Donut Chart: Total Revenue Generated by Customer Subscription Type.
35. Line Chart: Total Quantity of meals sold by Customer Subscription Type across each Quarter.
36. Area Chart: Average Refund Amount by Subscription type across each Month-Year.
37. Bar Chart: Total Number of Customers by Sales.
38. Pie Chart: Total Revenue Generated by Sales.
39. Area Chart: Total Policy Sold by Sales across each Quarter.
40. Line Chart: Average Refund Amount by Sales across each Month-Year.
41. Bar Chart: Total Quantity Sold by Subscription Type.
42. Line Chart: Total Revenue Generated by Subscription Type across each Date.
43. Map Visual: Display Location Wise Total Number of Customers, Total Revenue generated, Total Number of meals Sold, and Total Amount Refunded.
44. Table Visual: Display the granular level information’s.
45. Also, you can add some more KPI’s based on your analysis.

**Report formatting:** Format the individual reports based on the following information’s-

1. All the slicer must be multi select option except Date slicer, Date slicer must be a slider.
2. Page background must be in black color for the individual report pages.
3. Use the following color combination to format the report pages-
   * #0090D4
   * #95C11F
   * #F39200
   * #93AEB9
   * #8B9C22
   * #DA5914
   * #957E5D
   * #C6C6C6
   * #1E4451
   * #286D29
   * #974008
   * #5C4530
   * #878787
   * #E3E3E3
   * #DFD5B4
   * #00abe4
   * #c8d400
4. Use Different color on the button action.
5. Use standard font and colors for the card, slicer, and title visuals.

**Deployment and Scheduling:** Once this report is created, deploy this into the Power BI Services and perform the following activities-

1. Deploy the report into the Power BI services.
2. Configure the Refresh scheduled.
3. Create a Dashboard in the Power BI Services based on the following KPI’s

* Total Number of Customers
* Total Number of meals Sold
* Total Amount Refunded
* Average Amount Refunded
* Average Meal Sold per Customer
* Total Number of Open Complaints
* Total Claim Amounts
* Average Claim Amount
* Average Monthly Premium
* Total Basic Subscription
* Total Premium Subscription
* Total Suburban Customer's
* Total Rural Customer's
* Total Urban Customer's
* Pie chart
* Line Chart
* Bar Chart
* Table Chart
* Line Chart
* Map Visual
* Table Visual
* Pie Chart

**Generate the Public Links:** Once the report is available in the Power BI services, generate the public link of the report, and shared accordingly.

**References:**

Provide the reference of the data you gathered.