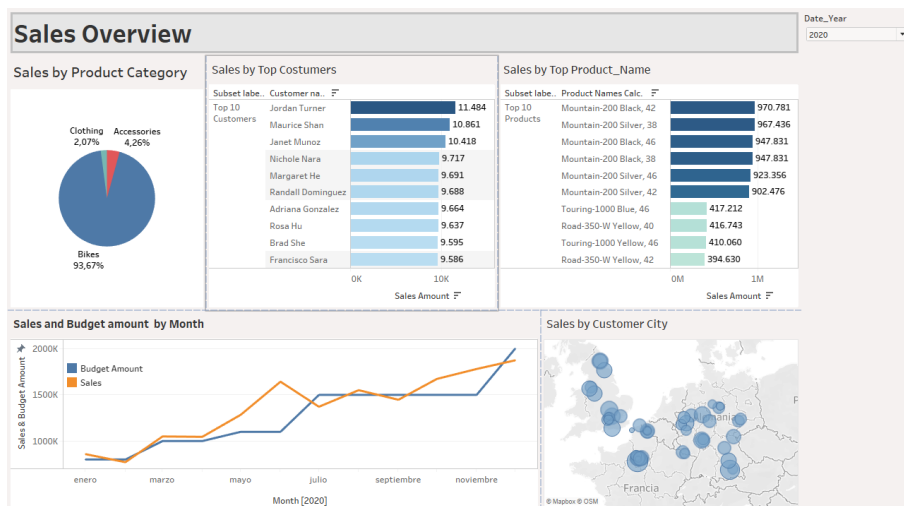


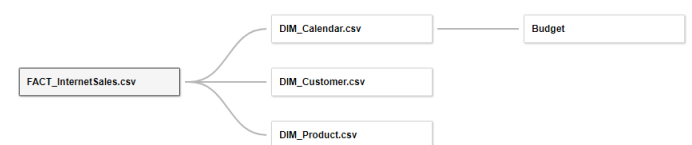
Data Analyst Project – Sales Management



FACT_InternetSales.csv+ (Multiple Connections)

Excel DIM_Product - Guardado en OneDrive

Product_Key	Product_Code	Product_Name	Product_Subcategory	Product_Category	Product_Cost	Product_Status
1	AR-5381	Adjustable Race	NULL	NULL	NULL	Current
2	BA-8327	Bearing Ball	NULL	NULL	NULL	Current
3	BE-2349	BB Ball Bearing	NULL	NULL	NULL	Current
4	BE-2908	Headset Ball Bearings	NULL	NULL	NULL	Current
5	BL-2036	Blade	NULL	NULL	NULL	Current
6	CA-5965	LL Crankarm	NULL	NULL	NULL	Current
7	CA-6738	ML Crankarm	NULL	NULL	NULL	Current
8	CA-7457	HL Crankarm	NULL	NULL	NULL	Current
9	CB-2903	Chainring Bolts	NULL	NULL	NULL	Current
10	CN-6137	Chainring Nut	NULL	NULL	NULL	Current
11	CR-7833	Chainring	NULL	NULL	NULL	Current
12	CR-9981	Crown Race	NULL	NULL	NULL	Current
13	CS-2812	Chain Stays	NULL	NULL	NULL	Current
14	DC-8732	Decal 1	NULL	NULL	NULL	Current
15	DC-9624	Decal 2	NULL	NULL	NULL	Current
16	DT-2377	Down Tube	NULL	NULL	NULL	Current
17	EC-M092	Mountain End Caps	NULL	NULL	NULL	Current
18	EC-R098	Road End Caps	NULL	NULL	NULL	Current
19	EC-T209	Touring End Caps	NULL	NULL	NULL	Current
20	FE-3760	Fork End	NULL	NULL	NULL	Current
21	FW-2981	Freewheel	NULL	NULL	NULL	Current
22	FW-1000	Flat Washer 1	NULL	NULL	NULL	Current
23	FW-1200	Flat Washer 6	NULL	NULL	NULL	Current
24	FW-1400	Flat Washer 2	NULL	NULL	NULL	Current



```

SELECT
    a.[ProductKey] AS Product_Key,
    a.[ProductAlternateKey] AS Product_Code,
    --a.[ProductSubcategoryKey]
    --a.[WeightInMeasureCode]
    --[SizeInMeasureCode]
    a.[EnglishProductName] AS Product_Name,
    a.[EnglishProductSubcategoryName] AS Product_Subcategory,
    c.[EnglishProductCategoryName] AS Product_Category,
    --[FrenchProductName]
    a.[StandardCost] AS Product_Cost,
    --[FinishGoodFlag]
    --[Color]
    --[SafetyStockLevel]
    --[ReorderPoint]
    --[ListPrice]
    --[Size]
    --[SizeRange]
    --[Weight]
    --[DaysToManufacture]
    --[ProductLine]
    --[DealerPrice]
    --[Class]
    --[Style]
    --[ModelName]
    --[LargePhoto]
    --[EnglishDescription]
    --[FrenchDescription]
    --[GermanDescription]
    --[StartDate]
    --[EndDate]
    --a.[Status]
    ISNULL(a.Status, 'Outdated') AS Product_Status
FROM
    [AdventureWorksDW2019].[dbo].[DimProduct] AS a
LEFT JOIN DimProductSubcategory AS s ON s.ProductSubcategoryKey = a.ProductSubcategoryKey
LEFT JOIN DimProductCategory AS c ON s.ProductCategoryKey = c.ProductCategoryKey
  
```

Business Request & User Stories

The business request for this data analyst project was an executive sales report for sales managers. Based on the request that was made from the business we following user stories were defined to fulfill delivery and ensure that acceptance criteria's were maintained throughout the project.

#	As a (role)	I want (request / demand)	So that I (user value)	Acceptance Criteria
1	Sales Manager	To get a dashboard overview of internet sales	Can follow better which customers and products sells the best	A Tableau dashboard which updates data once a day
2	Sales Representative	A detailed overview of Internet Sales per Customers	Can follow up my customers that buys the most and who we can sell more to	A Tableau dashboard which allows me to filter data for each customer
3	Sales Representative	A detailed overview of Internet Sales per Products	Can follow up my Products that sells the most	A Tableau dashboard which allows me to filter data for each Product
4	Sales Manager	A dashboard overview of internet sales	Follow sales over time against budget	A Tableau dashboard with graphs and KPIs comparing against budget.

Data Cleansing & Transformation (SQL)

To create the necessary data model for doing analysis and fulfilling the business needs defined in the user stories the following tables were extracted using SQL.

One data source (sales budgets) were provided in Excel format and were connected in the data model in a later step of the process. Below are the SQL statements for cleansing and transforming necessary data.

DIM_Calendar:

DIM_Calendar.sql

```
1  /***** Script for Select Date *****/
2
3  SELECT
4      [DateKey],
5      [FullDateAlternateKey] AS Date,
6      [DayNumberOfWeek] AS Day,
7      --[EnglishDayNameOfWeek]
8      --,[SpanishDayNameOfWeek]
9      --,[FrenchDayNameOfWeek]
10     --,[DayNumberOfMonth]
11     --,[DayNumberOfYear],
12     [WeekNumberOfYear] AS WeekNr,
13     [EnglishMonthName] AS Month,
14     --,[SpanishMonthName]
15     --,[FrenchMonthName]
16     [MonthNumberOfYear] AS MonthNo,
17     [CalendarQuarter] AS Quarter,
18     [CalendarYear] AS Year
19     --,[CalendarSemester]
20     --,[FiscalQuarter]
21     --,[FiscalYear]
22     --,[FiscalSemester]
23 FROM
24     [AdventureWorksDW2019].[dbo].[DimDate]
25
26 WHERE CalendarYear >= 2019
27
```

DIM_Customer:

DIM_Customer.sql

```
1  /***** Script for Select Customers *****/
2
3  SELECT
4      c.[CustomerKey],
5      -- ,[GeographyKey]
6      --,[CustomerAlternateKey]
7      --,[Title]
8      c.[FirstName] AS First_Name,
9      --,[MiddleName]
10     c.[LastName] AS Last_Name,
11     c.FirstName + ' ' + c.LastName AS Full_Name,
12     --,[NameStyle]
13     --,[BirthDate]
14     --,[MaritalStatus]
15     --,[Suffix]
16     CASE c.[Gender] WHEN 'M' THEN 'Male' WHEN 'F' THEN 'Female' END AS Gender
17     --,[EmailAddress]
18     --,[YearlyIncome]
19     --,[TotalChildren]
20     --,[NumberChildrenAtHome]
21     --,[EnglishEducation]
22     --,[EnglishOccupation]
23     --,[HouseOwnerFlag]
24     --,[NumberCarsOwned]
25     --,[AddressLine1]
26     --,[AddressLine2]
27     --,[Phone]
28     ,c.[DateFirstPurchase] AS Date_First_Purchase,
29     --,[CommuteDistance]
30     g.City AS City -- Joined in Customer City from Geography Table
31 FROM
32     [AdventureWorksDW2019].[dbo].[DimCustomer] AS c
33     LEFT JOIN DimGeography AS g
34         ON c.GeographyKey = g.GeographyKey
35 ORDER BY CustomerAlternateKey ASC;
```

DIM_Product:

DIM_Product.sql

```
2 SELECT
3     p.[ProductKey] AS Product_Key,
4     p.[ProductAlternateKey] AS Product_Code,
5     --,[ProductSubcategoryKey]
6     --,[WeightUnitMeasureCode]
7     --,[SizeUnitMeasureCode]
8     p.[EnglishProductName] AS Product_Name,
9     ps.[EnglishProductSubcategoryName] AS Product_Subcategory, -- Joined in from Sub Category Table
10    pc.[EnglishProductCategoryName] AS Product_Category, -- Joined in from Category Table
11    p.[StandardCost] AS Product_Cost,
12    --,[FinishedGoodsFlag]
13    --,[Color]
14    --,[SafetyStockLevel]
15    --,[ReorderPoint]
16    --,[ListPrice]
17    --,[Size]
18    --,[Weight]
19    --,[DaysToManufacture]
20    --,[ProductLine]
21    --,[DealerPrice]
22    --,[Class]
23    --,[Style]
24    --,[ModelName]
25    --,[EnglishDescription]
26    --,[StartDate]
27    --,[EndDate]
28    --,p.[Status]
29    ISNULL (p.Status, 'Outdated') AS Product_Status
30 FROM
31     [AdventureWorksDW2019].[dbo].[DimProduct] AS p
32     LEFT JOIN [dbo].[DimProductSubcategory] AS ps ON ps.ProductSubcategoryKey = p.ProductSubcategoryKey
33     LEFT JOIN [dbo].[DimProductCategory] AS pc ON ps.ProductCategoryKey = pc.ProductCategoryKey
34 ORDER BY
35     p.ProductKey ASC
```

FACT_InternetSales:

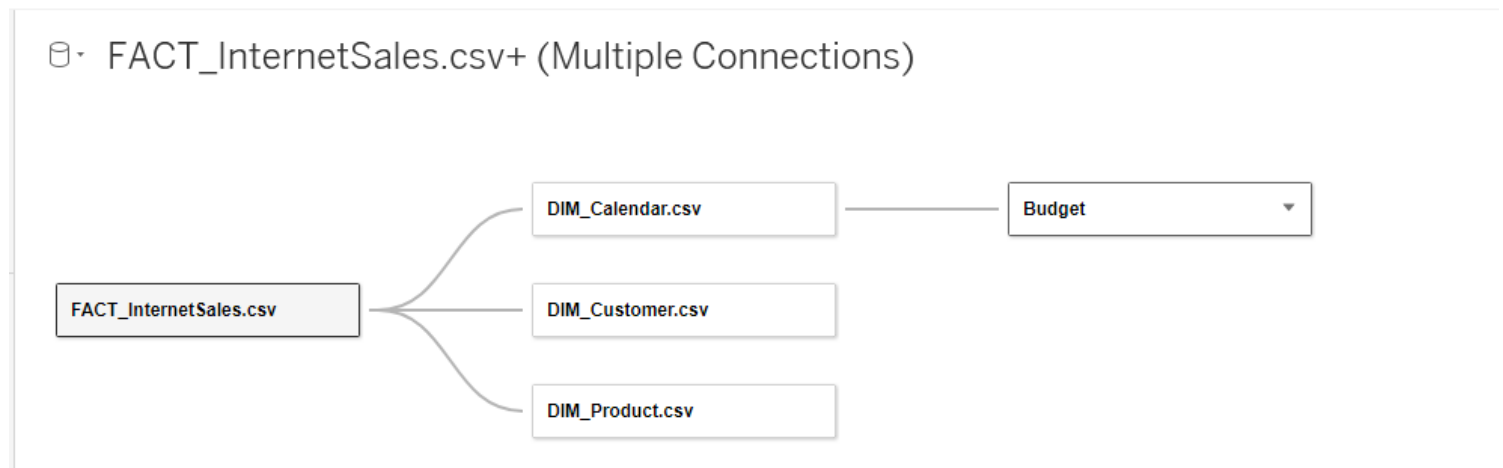
FACT_InternetSales.sql

```
1  /***** Script for Select Internet Sales *****/
2  SELECT
3      [ProductKey],
4      [OrderDateKey],
5      [DueDateKey],
6      [ShipDateKey],
7      [CustomerKey],
8      --,[PromotionKey]
9      --,[CurrencyKey]
10     --,[SalesTerritoryKey]
11     [SalesOrderNumber],
12     --,[SalesOrderLineNumber]
13     --,[RevisionNumber]
14     --,[OrderQuantity]
15     --,[UnitPrice]
16     --,[ExtendedAmount]
17     --,[UnitPriceDiscountPct]
18     --,[DiscountAmount]
19     --,[ProductStandardCost]
20     --,[TotalProductCost]
21     [SalesAmount],
22     --,[TaxAmt]
23     --,[Freight]
24     --,[CarrierTrackingNumber]
25     --,[CustomerPONumber]
26     [OrderDate]
27     --,[DueDate]
28     --,[ShipDate]
29 FROM
30     [AdventureWorksDW2019].[dbo].[FactInternetSales]
31 WHERE
32     LEFT (OrderDateKey, 4) >= YEAR(GETDATE()) -2 -- Ensures we always only bring two years of date from extraction.
33 ORDER BY OrderDateKey ASC
```

Data Model

Below is a screenshot of the data model after cleansed and prepared tables were read into **Tableau**.

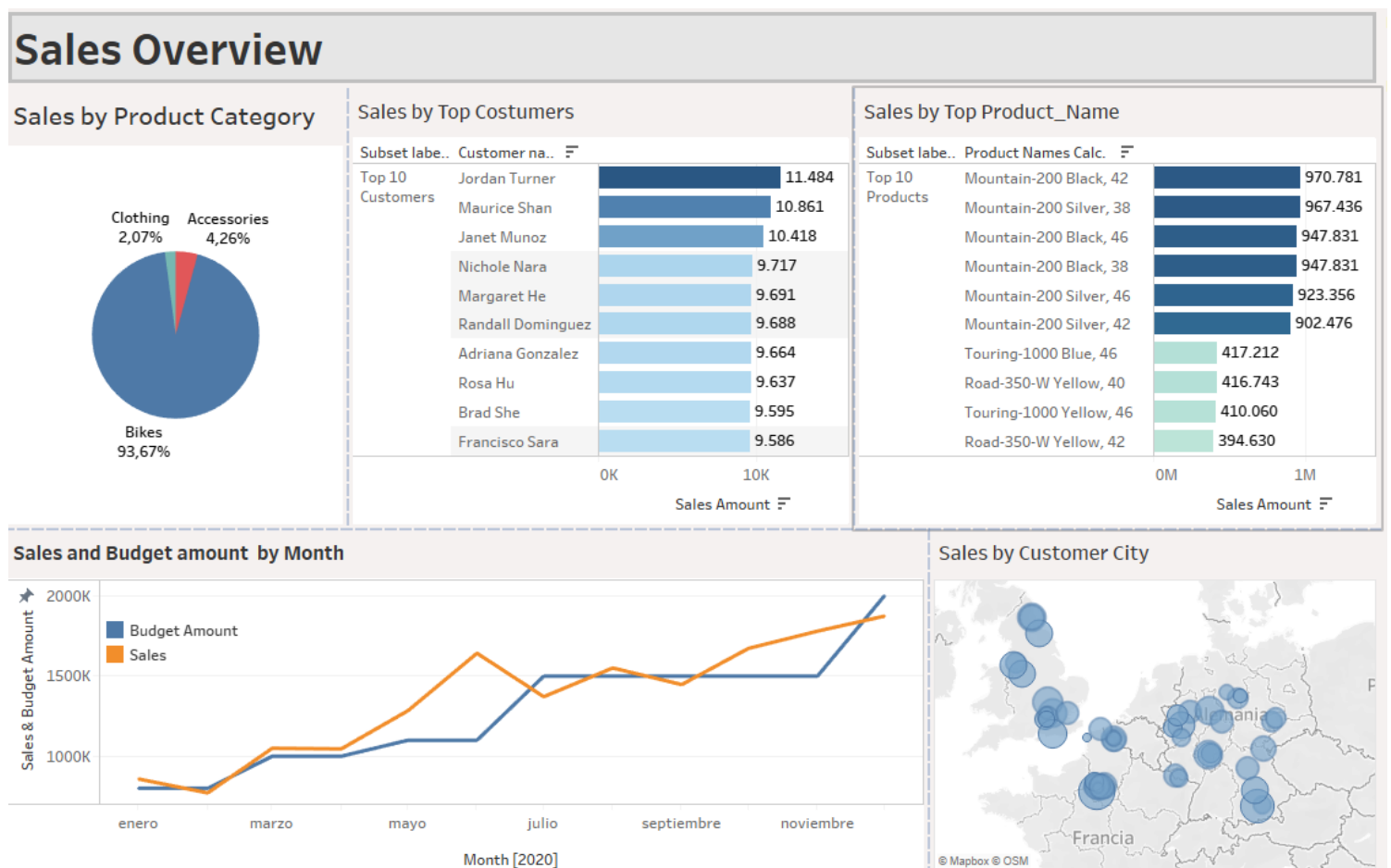
This data model also shows how FACT_Budget has been connected to FACT_InternetSales and other necessary DIM tables.



Sales Management Dashboard

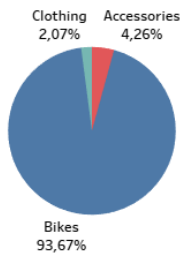
The finished sales management dashboard with one page with works as a dashboard and overview, with two other pages focused on combining tables for necessary details and visualizations to show sales over time, per customers and per products.

Click the [link](#) to to open the dashboard and try it out!

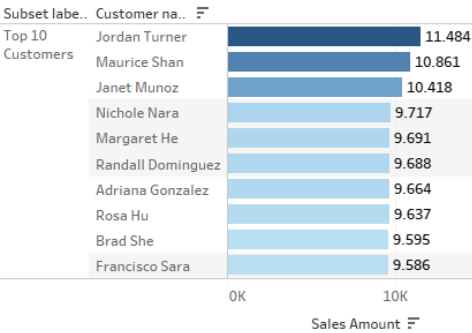


Customer Details

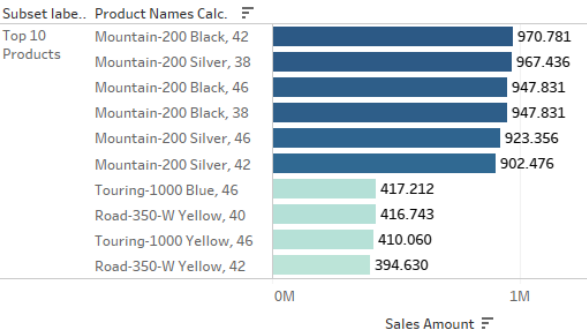
Sales by Product Category



Sales by Top Costumers



Sales by Top Product_Name

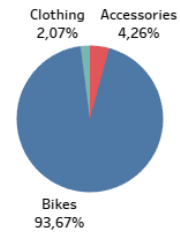


Customer

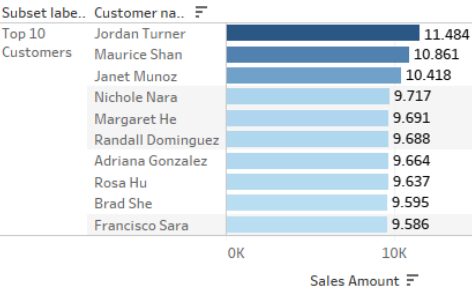
Full Name	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Jordan Turner	2.377				2.355		540	2.433	540		3.239		11.484
Maurice Shan	4.885		2.322				1.269		2.384				10.861
Janet Munoz	4.876		3.122							2.419			10.418
Nichole Nara	2.482			2.494	2.322						2.419		9.717
Margaret He	2.500			2.423	2.340						2.428		9.691
Randall Dominguez	4.864			2.355						2.469			9.688
Adriana Gonzalez	2.498		2.393		2.320					2.453			9.664
Rosa Hu			2.492		4.747						2.398		9.637
Brad She	2.443			2.423	2.345						2.384		9.595
Francisco Sara	2.451		2.433		2.295					2.407			9.586
Lacey Zheng	2.462					594	549	2.419			756	2.419	9.199
Larry Munoz	2.320				575	540		2.384			781	2.419	9.019

Product Details

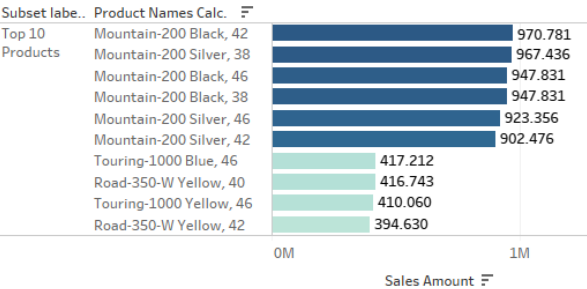
Sales by Product Category



Sales by Top Costumers



Sales by Top Product_Name



Product Sales

English P..	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Mountain-200 ..	41.310	45.900	64.260	55.080	89.505	98.685	59.670	94.095	100.980	94.095	100.980	126.224	970.781
Mountain-200 ..	76.560	41.760	55.680	64.960	74.240	64.960	71.920	83.520	78.880	106.720	109.040	139.199	967.436
Mountain-200 ..	61.965	61.965	59.670	66.555	73.440	98.685	82.620	78.030	75.735	80.325	110.160	98.685	947.831
Mountain-200 ..	61.965	34.425	64.260	41.310	64.260	94.095	94.095	100.980	73.440	98.685	119.339	100.980	947.831
Mountain-200 ..	34.800	30.160	55.680	58.000	71.920	92.800	99.760	99.760	78.880	76.560	129.919	95.120	923.356
Mountain-200 ..	51.040	34.800	76.560	60.320	58.000	88.160	69.600	83.520	76.560	83.520	99.760	120.639	902.476
Touring-1000 ..	11.920	4.768	16.688	26.225	30.993	42.913	42.913	54.834	47.681	61.986	42.913	33.377	417.212
Road-350-W Y..	15.309	20.412	20.412	20.412	40.824	35.721	32.319	42.525	40.824	40.824	42.525	64.638	416.743
Touring-1000 ..	14.304	14.304	19.073	21.457	28.609	40.529	38.145	40.529	33.377	45.297	57.218	57.218	410.060
Road-350-W Y..	10.206	10.206	18.711	15.309	37.422	40.824	27.216	47.628	42.525	52.731	34.020	57.834	394.630
Road-350-W Y..	8.505	17.010	17.010	18.711	30.618	40.824	34.020	37.422	28.917	57.834	57.834	44.226	392.929
Touring-1000 ..	11.920	28.609	4.768	16.688	23.841	40.529	35.761	40.529	38.145	38.145	45.297	57.218	381.451
Road-250 Blac..	43.980	39.094	34.207	39.094	26.877	41.537	14.660	36.650	26.877	31.764	19.547	26.877	381.163
Touring-1000 ..	4.768	11.920	9.536	28.609	33.377	47.681	21.457	40.529	40.529	47.681	42.913	47.681	376.683