CAPSTONE PROJECT
FOOD FORECASTING DEMAND

PREPARED BY   DATE OF SUBMISSION

RAMESH J   27TH JULY'20

Here's the problem statement:

Your client is a meal delivery company that operates in multiple cities. They have various fulfillment centers in these cities for dispatching meal orders to their customers. The client wants to help these centers with demand forecasting for upcoming weeks so that these centers will plan the stock of raw materials accordingly.

The replenishment of the majority of raw materials is done on a weekly basis and since the raw material is perishable, procurement planning is of utmost importance. Secondly, staffing of the centers is also one area wherein accurate demand forecasts are really helpful. We have the below information with us in the form of 3 different datasets:

Historical data of demand for a product-center combination
Product (Meal) features such as category, sub-category, current price and discount
Information for fulfillment centers like center area, city information, etc.
You can download the dataset from here.

You need to come up with a story in Tableau that talks about the level of demand in each center. This analysis needs to be granular enough to include product information as well. The client wants an end-to-end report to understand which fulfillment areas are doing well and which aren't. You can also talk about center-meal combinations to add nuance to your final submission.
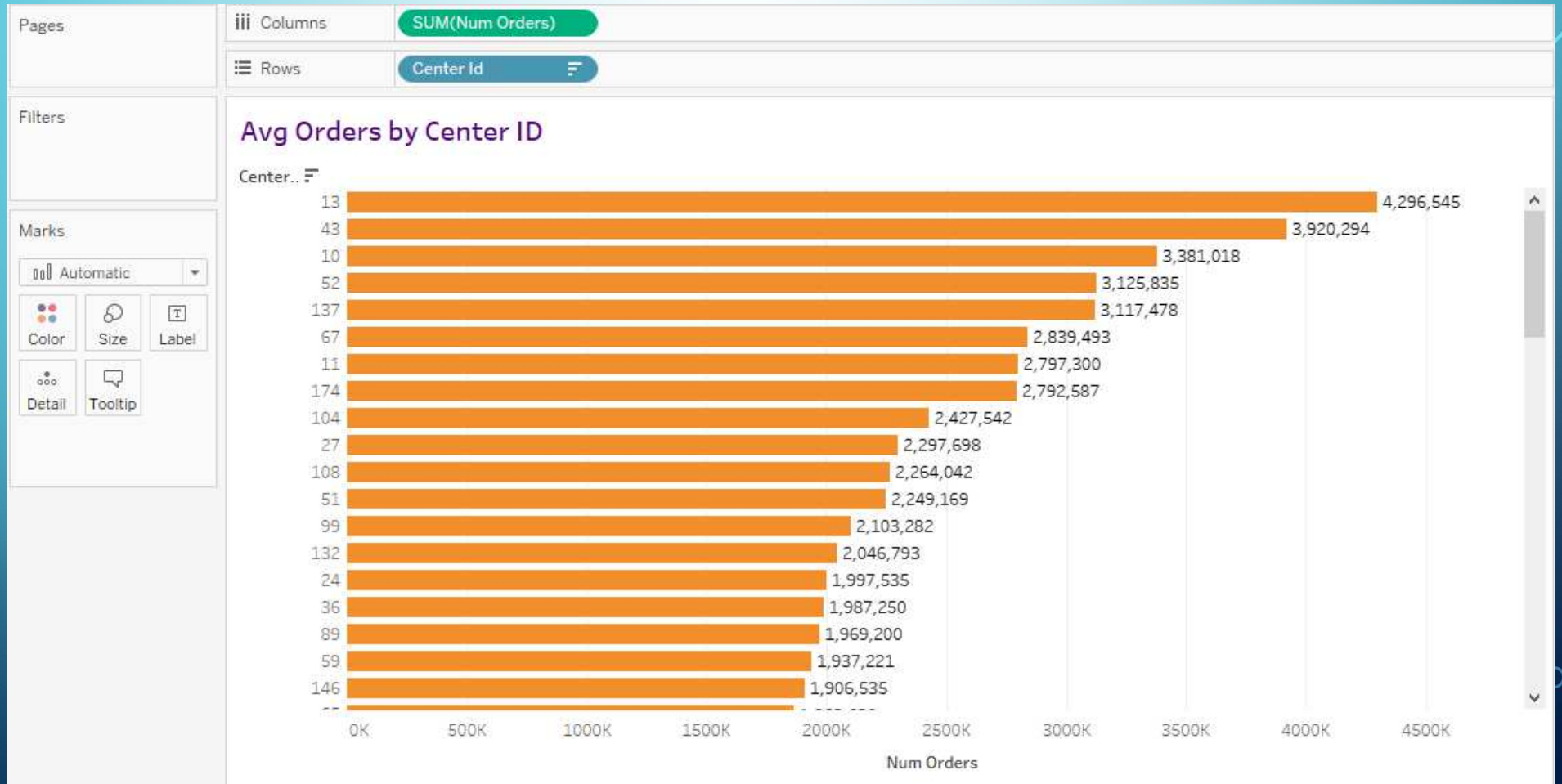
Submit your final report in the form of a Word document if you're using Tableau Public. If you're on Tableau Desktop, you can share this in the form of a storyboard itself.
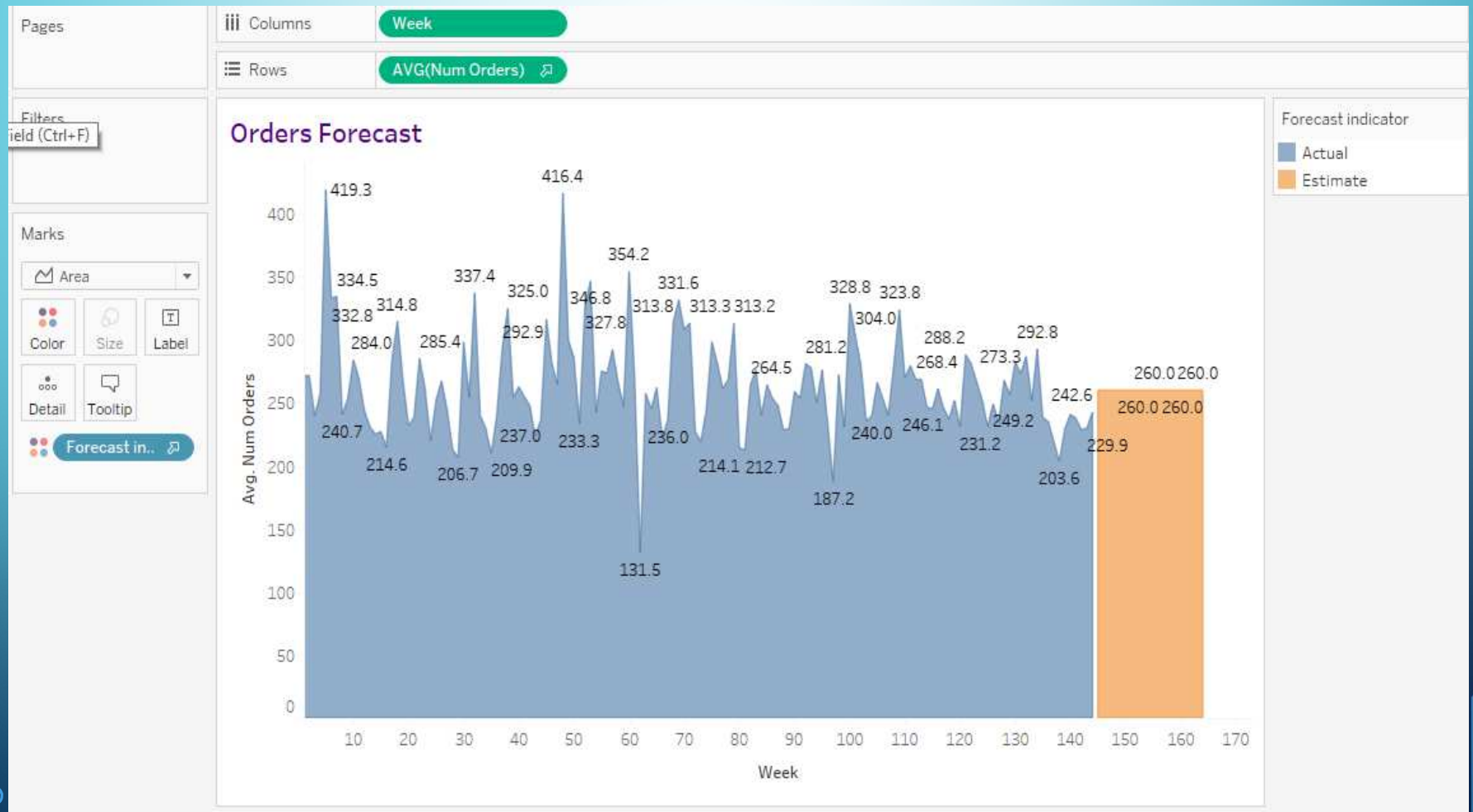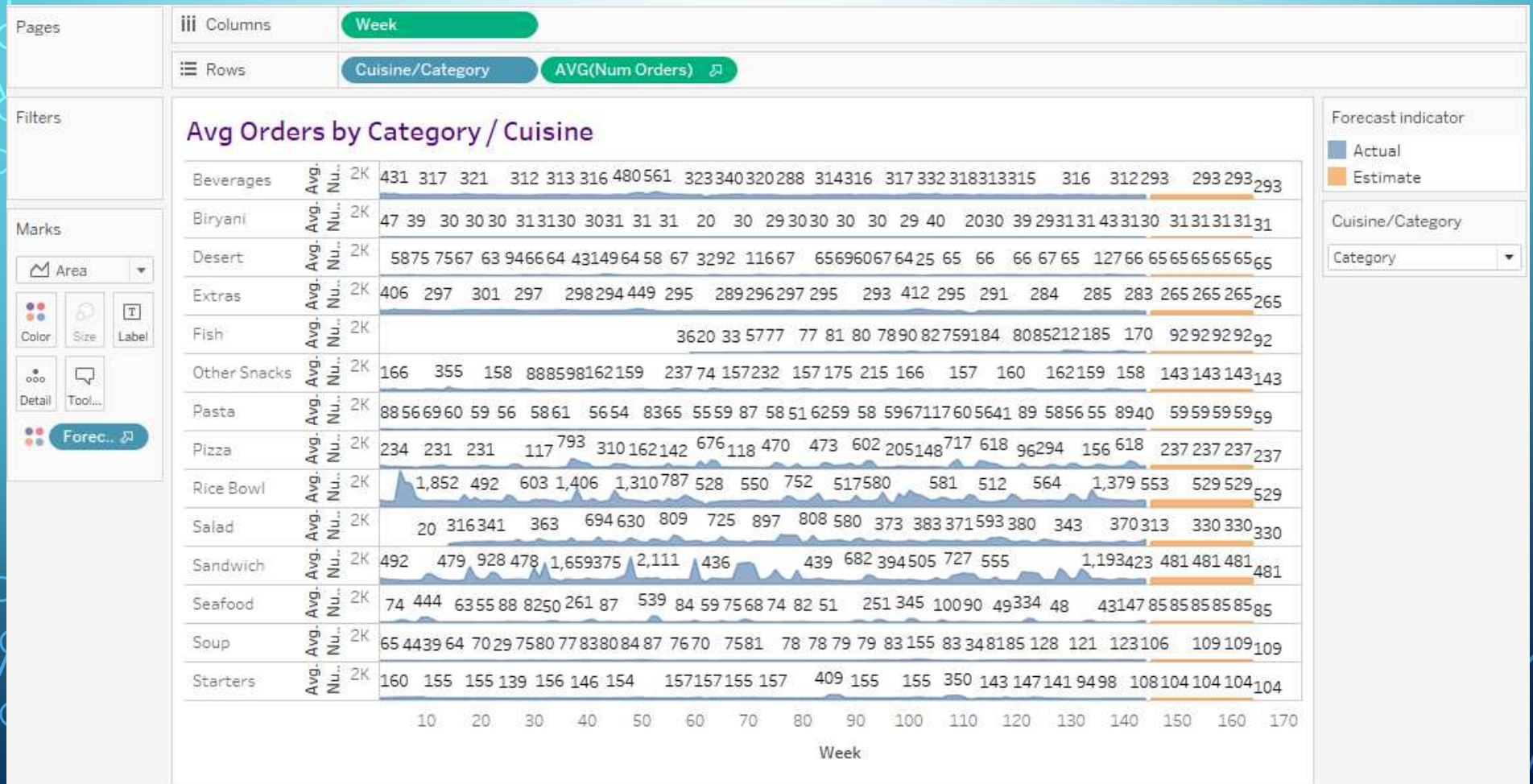
CHARTS

Avg Orders by Center Type
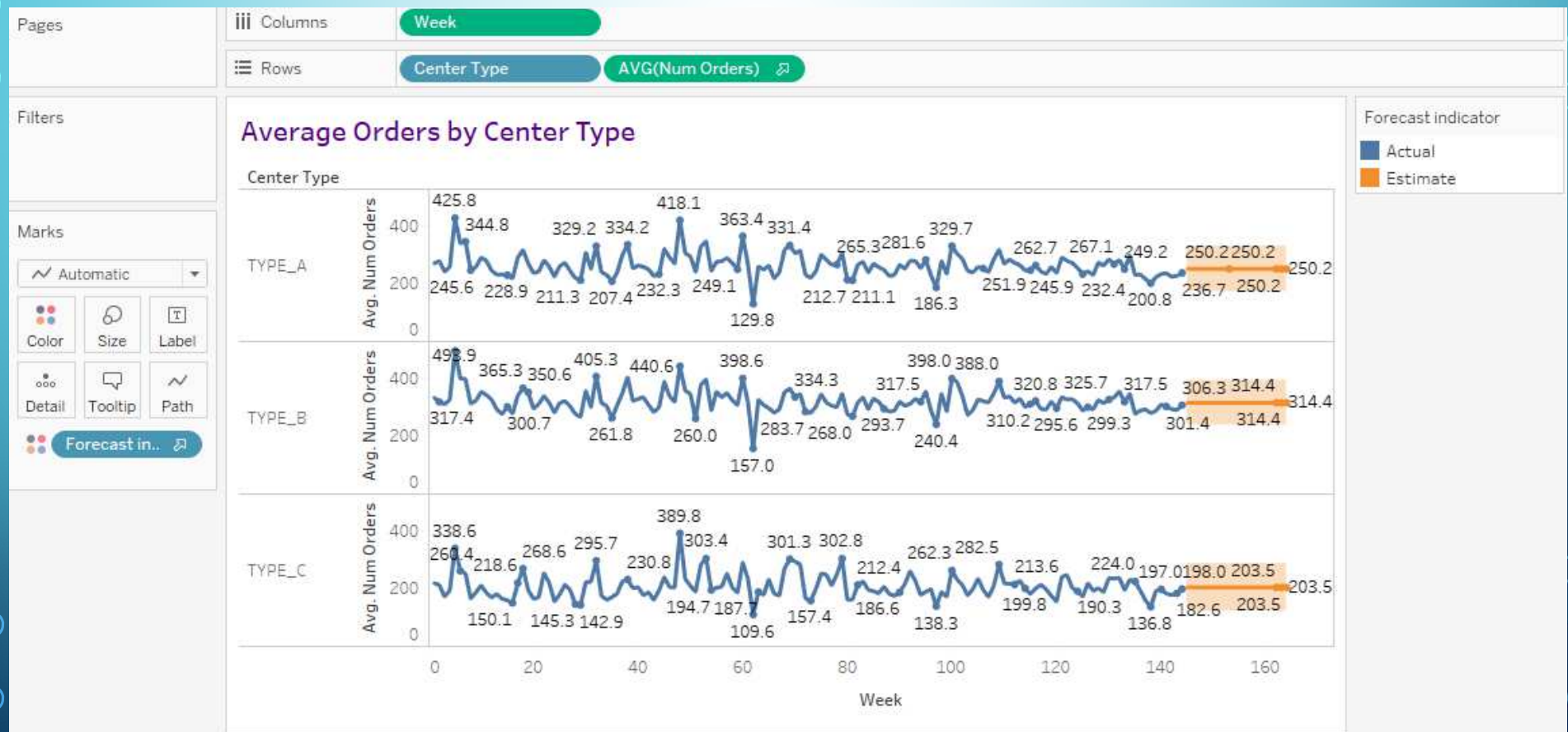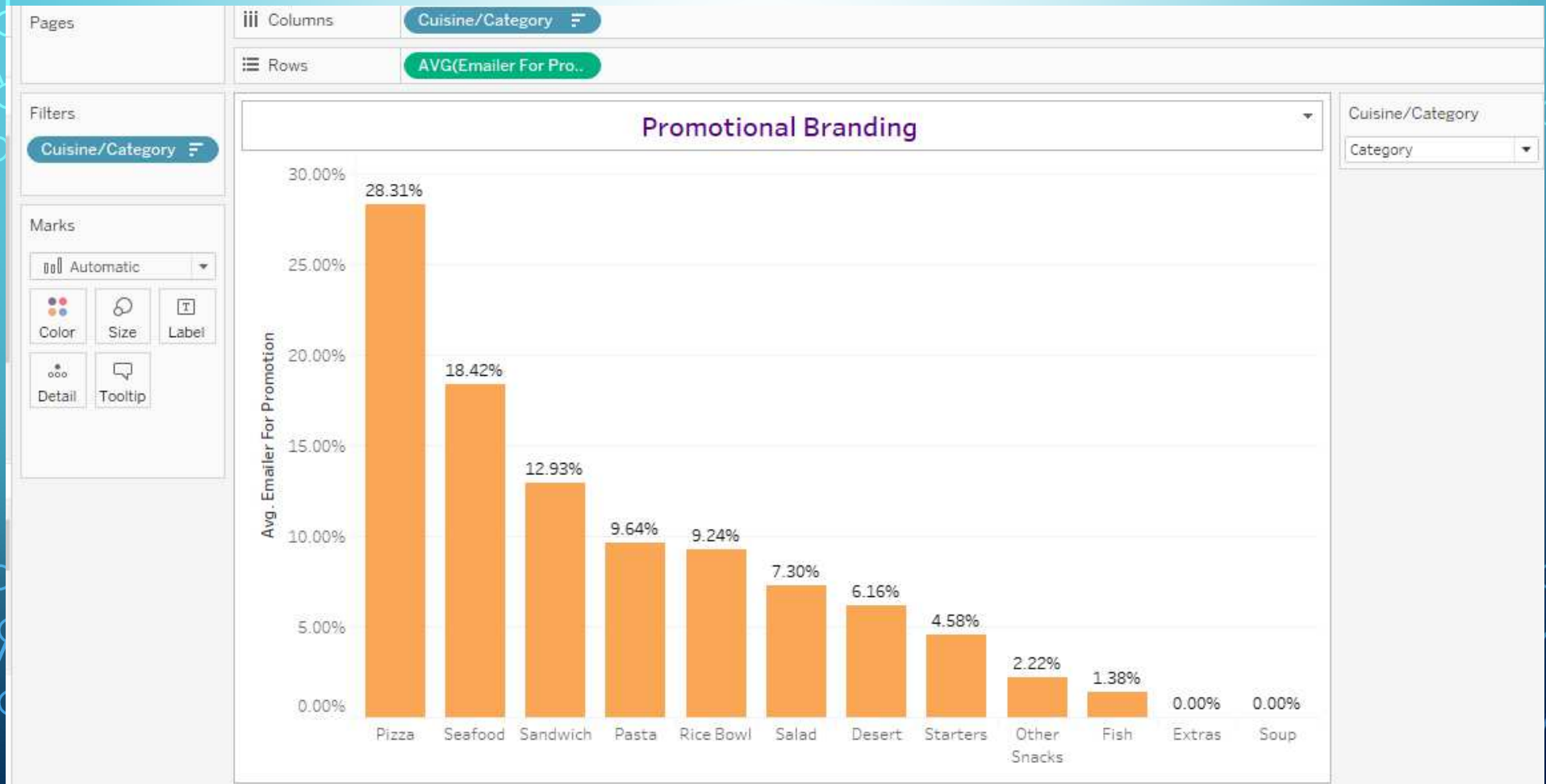
Avg Orders by Center ID
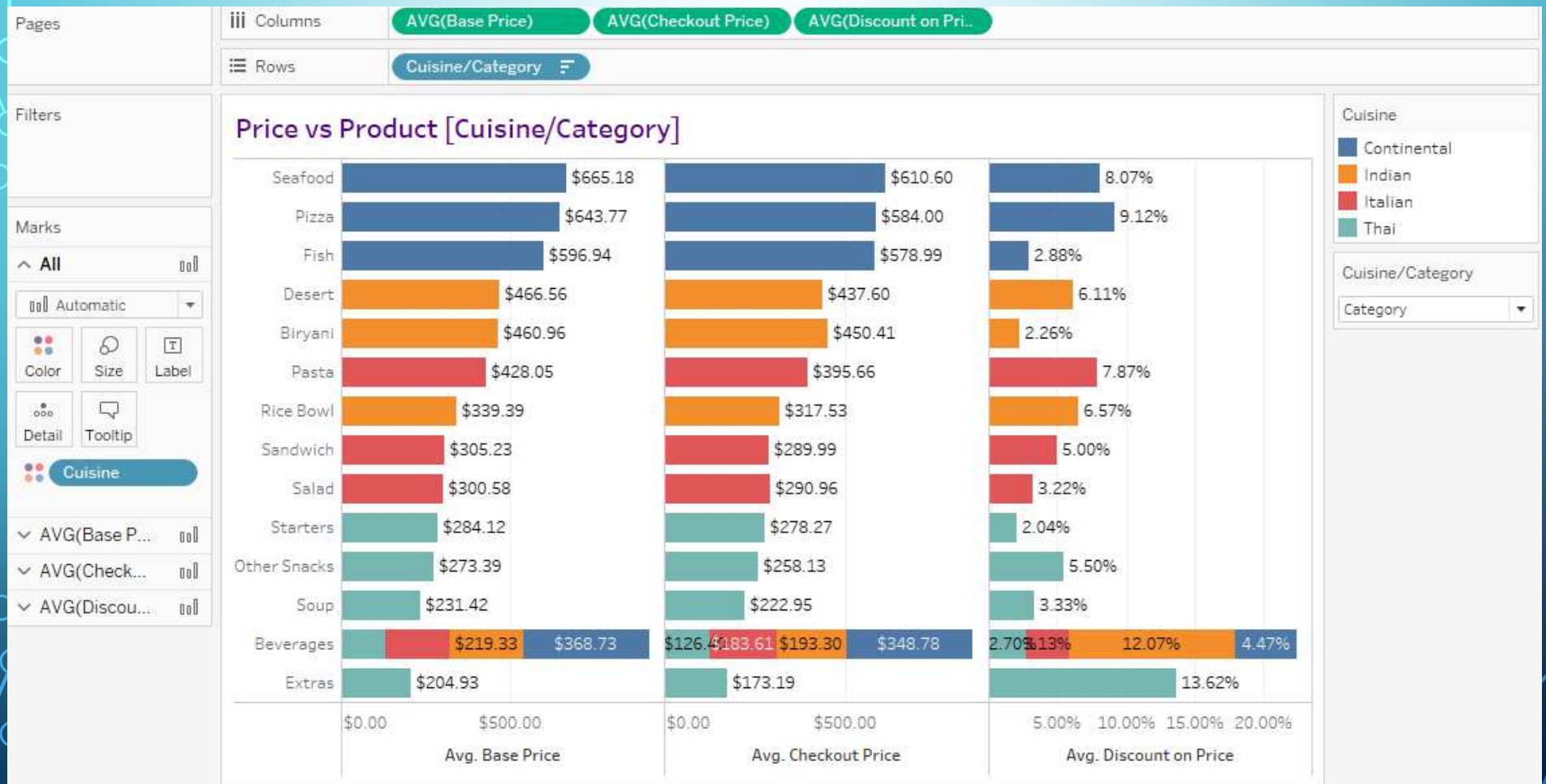
Orders Forecast

Avg Orders by Category/Cuisine

Promotional Branding – Category and Cuisine wise

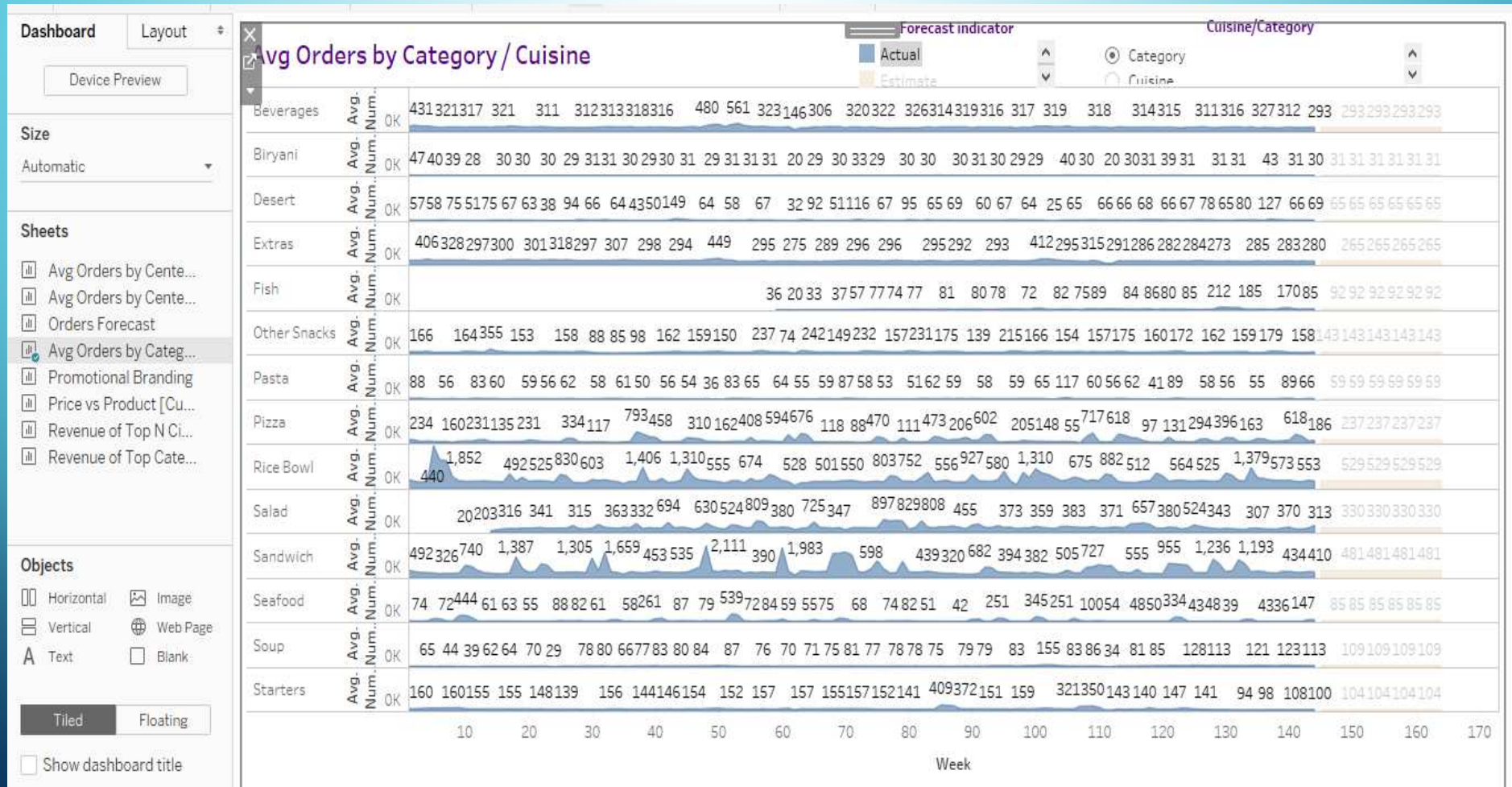# Price vs Product [Cuisine/Category]

Revenue of Top N City Codes

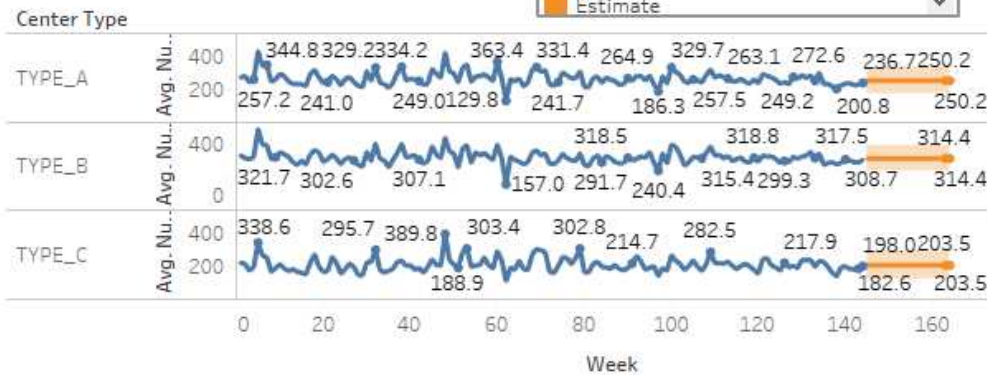# Revenue of Top Categories & Cuisines
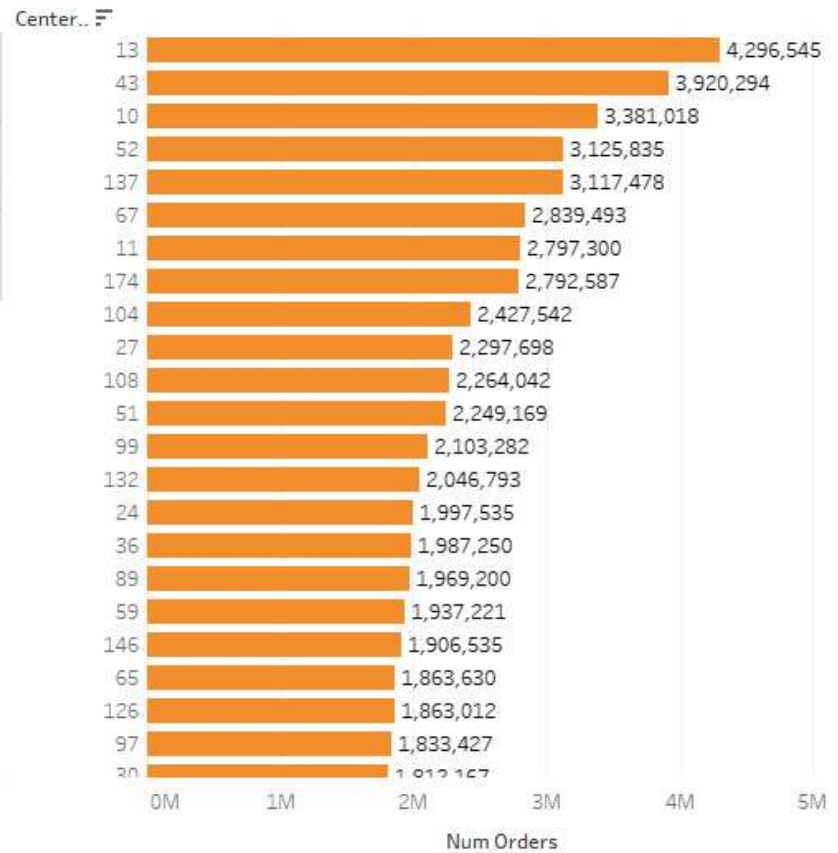
Food Forecast Dashboard #1

Food Forecast Dashboard #2

Food Forecast Dashboard #3

Food Forecast Dashboard #4

Revenue of Top Categories & Cuisines

Cuisine/Category
Category

Category	Revenue
Beverages	$7,347,303,891.23
Rice Bowl	$5,881,531,237.41
Sandwich	$4,663,426,849.81
Pizza	$3,955,955,845.37
Salad	$3,032,256,462.86
Seafood	$1,447,748,836.66
Starters	$1,259,443,207.79
Other Snacks	$1,209,248,401.74
Desert	$820,840,980.92
Extras	$679,012,552.65
Pasta	$628,530,095.89
Fish	$488,638,830.39
Biryani	$282,258,335.26
Soup	$226,575,512.13

Revenue

Promotional Branding

Avg. Emailer For Promotion

Category	%
Pizza	28.31%
Seafo..	18.42%
Sand..	12.93%
Pasta	9.64%
Rice Bowl	9.24%
Salad	7.30%
Desert	6.16%
Start..	4.58%
Other Snacks	2.22%
Fish	1.38%
Extras	0.00%
Soup	0.00%

STORY BOARD

Rice bowl and Sandwich Categories shows Maximum Demand.
Italian Cuisine shows Maximum Demand

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Italian Cuisine shows Maximum Demand

Meal Delivery Supply Chain Storyboard

Average Orders by Center Type
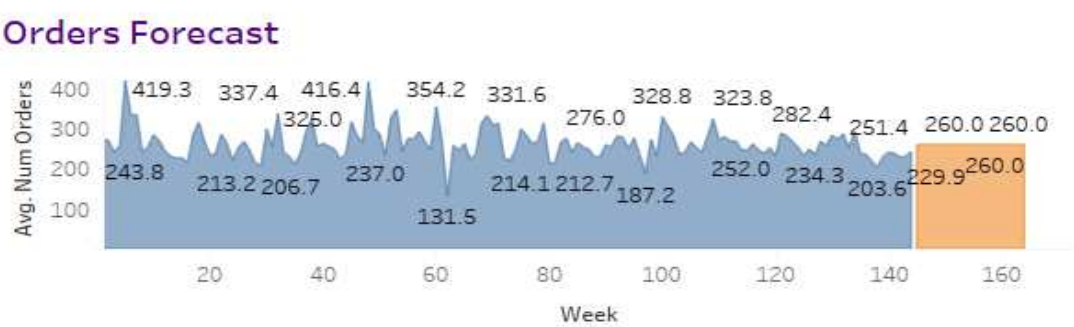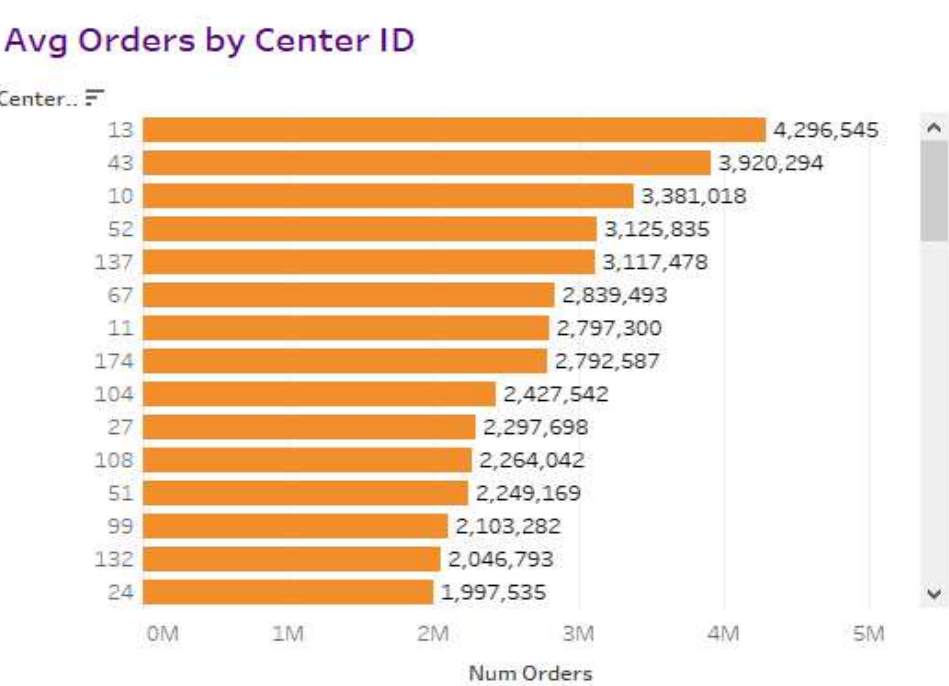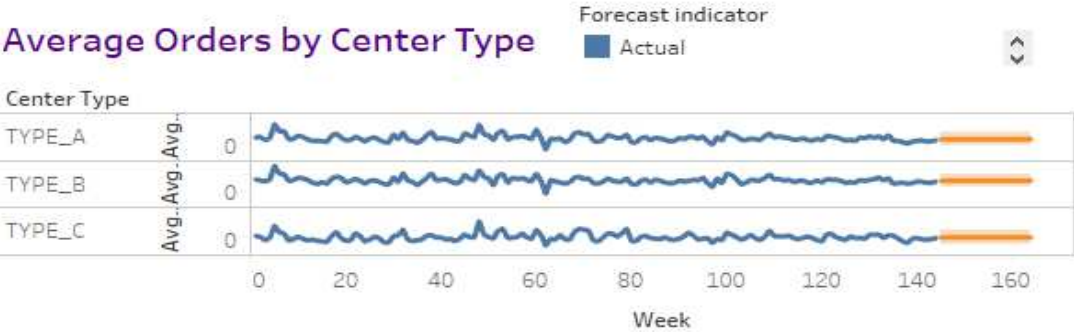
Forecast indicator
■ Actual

Avg Orders by Center ID

Orders Forecast

TYPE B Center shows maximum forecast demand.
Center ID - 13 has supplied maximum average number of orders

Meal Delivery Supply Chain Storyboard

Revenue of Top N City Codes

Top N City .. 10

INDEX	City C..	Revenue
1	590	$5,233,354,264.15
2	526	$2,572,991,866.35
3	638	$1,752,625,758.68
4	604	$929,431,303.14
5	699	$926,319,479.14
6	522	$876,945,779.12
7	614	$854,324,892.19
8	517	$845,272,038.57
9	647	$838,967,554.70
10	685	$809,587,305.74

$0.00 ... $5,000,000,000.00
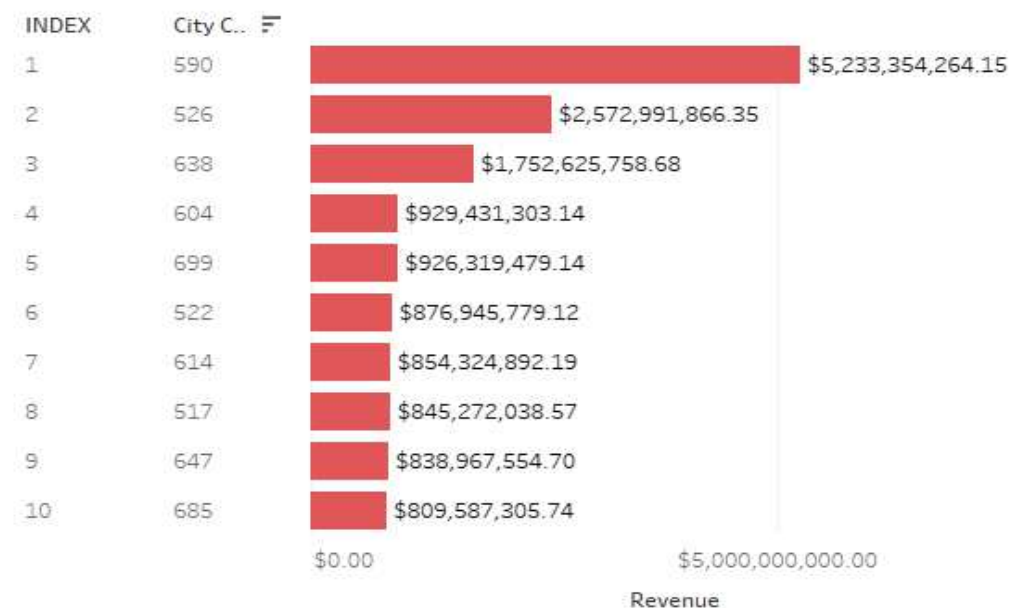
Revenue

Price vs Product [Cuisine/Category]

Select the .. Category

	Avg. Base Price	Avg. Checkout Price	Avg. Discount on Price
Seafood	$665.18	$610.60	8.07%
Pizza	$643.77	$584.00	9.12%
Fish	$596.94	$578.99	2.88%
Desert	$466.56	$437.60	6.11%
Biryani	$460.96	$450.41	2.26%
Pasta	$428.05	$395.66	7.87%
Rice Bowl	$339.39	$317.53	6.57%
Sandwich	$305.23	$289.99	5.00%
Salad	$300.58	$290.96	3.22%
Starters	$284.12	$278.27	2.04%
Other Snacks	$273.39	$258.13	5.50%
Soup	$231.42	$222.95	3.33%
Beverages	$368.73 $1868406193.30$348.78		2.303% 12.07% 4.47%
Extras	$204.93	$173.19	13.62%

$0.00 $500.00 ... $0.00 $500.00 ... 0.00% 10.00% 20.00%

"City Code 590" (Rank #1) generates more revenue.
Avg "Checkout Price" was maximum for Seafood
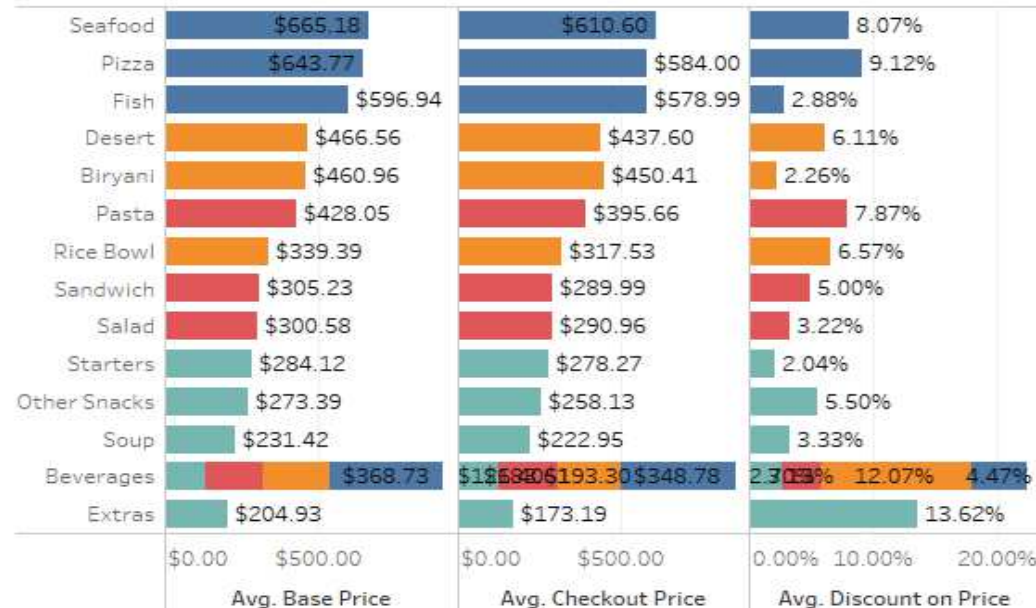Under Cuisine Max Discount of 7.09% was given for "Indian Food"
Under Category Max discount of 9.12% was given for "Pizza"

Meal Delivery Supply Chain Storyboard

Cuisine/Cat.. Cuisine ▼

Revenue of Top Categories & Cuisines

Italian — $10,920,332,834.18

Continental — $7,879,287,022.08

Indian — $7,353,185,299.76

Thai — $5,769,965,884.09

$0.00 $5,000,000,000.00 $10,000,000,000.00

Revenue ✈

Promotional Branding

Avg. Emailer For Promotion

Continental — 16.50%
Italian — 8.62%
Indian — 5.62%
Thai — 2.67%

"Italian Food" Cuisine generating more revenue
"Beverages" Category generating more revenue
Max Promotional Branding was done for "Pizza" category.
Max Promotional Branding was done for " Continental" Cuisine

Revenue of Top Categories & Cuisines
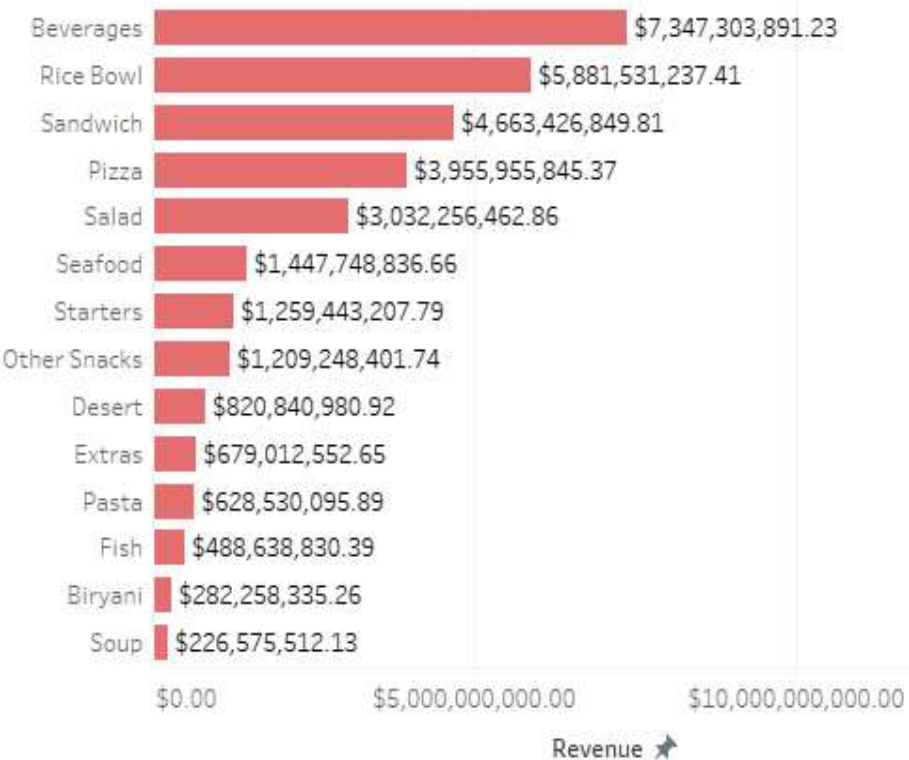
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Cuisine/Cat.. Category

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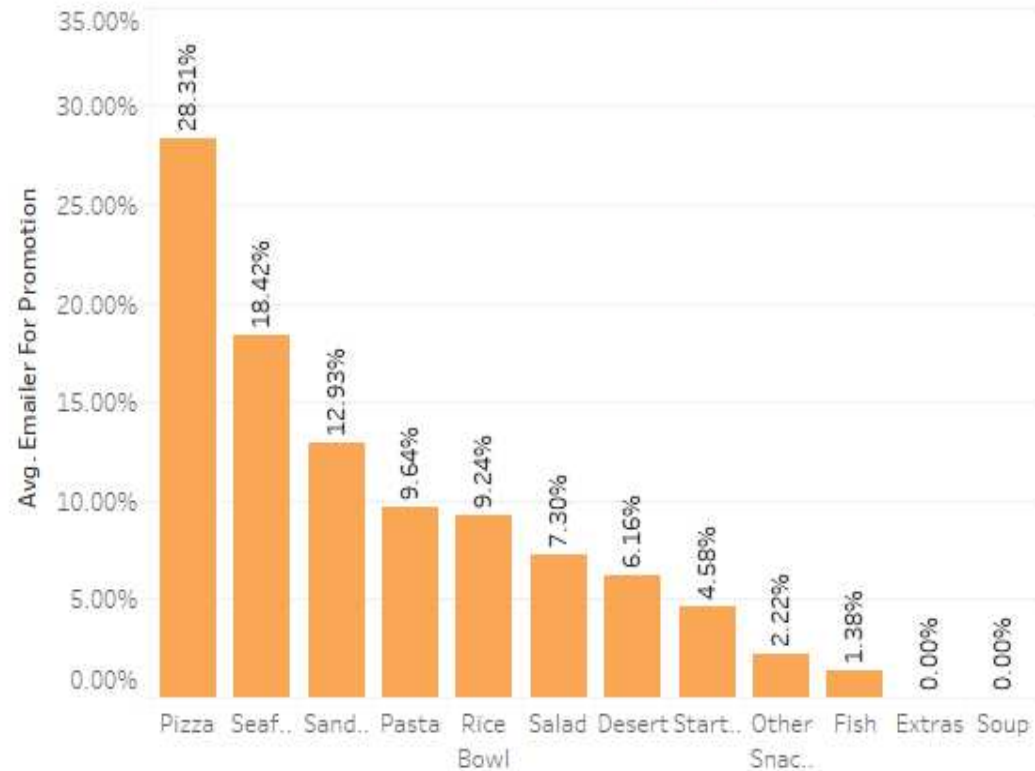| Category	Percent
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"Beverages" Category generating more revenue
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Max Promotional Branding was done for " Continental" Cuisine

THANK YOU