Food Orders Analytics

Description : The analytics project delves into a year's worth of food orders data, offering a detailed examination of customer preferences and trends. By analyzing the date, time, and specifics of each order, including item types, names, and prices, the aim is to extract valuable insights. This comprehensive exploration of the food orders dataset will enable informed decisions about the menu, an understanding of customer behavior, and an enhancement of the overall dining experience. Through data-driven analysis, the goal is to uncover patterns, identify popular choices, and optimize offerings to better cater to the diverse tastes of the clientele. This project reflects a commitment to utilizing analytics for strategic decision-making and continuous improvement in culinary offerings.
Below are the different analysis which we made.

1) Investigated the monthly order generation trends over the course of a year to determine the fluctuation and patterns in customer demand. This analysis provided valuable insights into the seasonality and overall performance, aiding in strategic decision-making for optimizing inventory and resources:

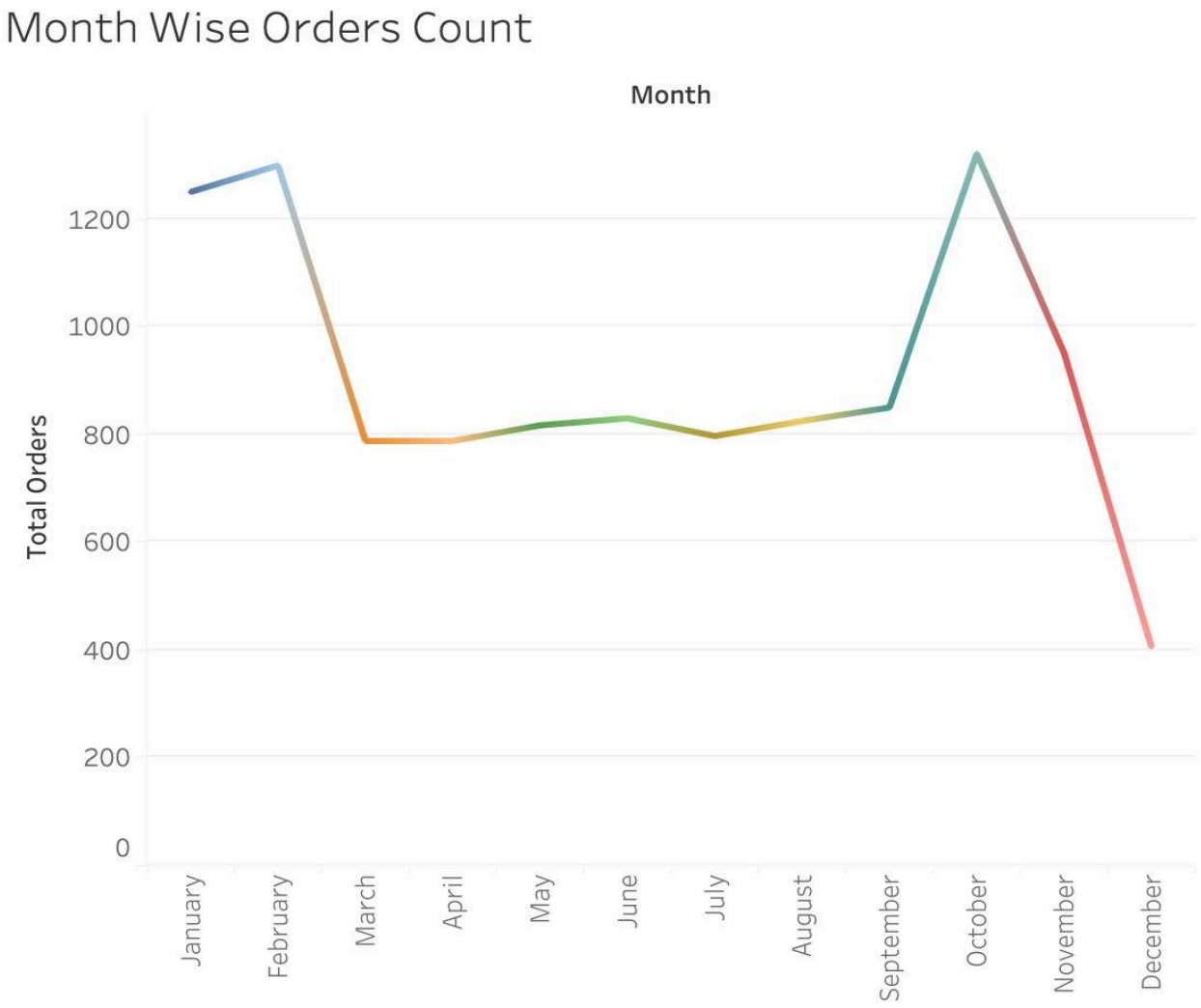
SQL Query:
```
SELECT MONTHNAME(order_date) as month, count(order_id) as total_orders
FROM restaurant_db.order_details
group by month,month(order_date) order by month(order_date) asc;
```

Result:

month	total_orders
January	1250
February	1299
March	788
April	788
May	817
June	830
July	797
August	825
September	850
October	1321
November	951

Result 17

Tableau Graph :



This results indicates that there there was constant demand of customers from March to September but the it increased a lot in October because of festive season And then sudden drop in the end

2) What are the top five dishes ordered with in a year:

Query : SELECT m.item_name , count(item_id) as total from order_details d join menu_items m on d.item_id = m.menu_item_id
group by item_id order by count(item_id) desc LIMIT 5;

Item Name	
Biryani	554
Dosa	522
Edamame	553
French Fries	507
Pasta	529

SQL Result

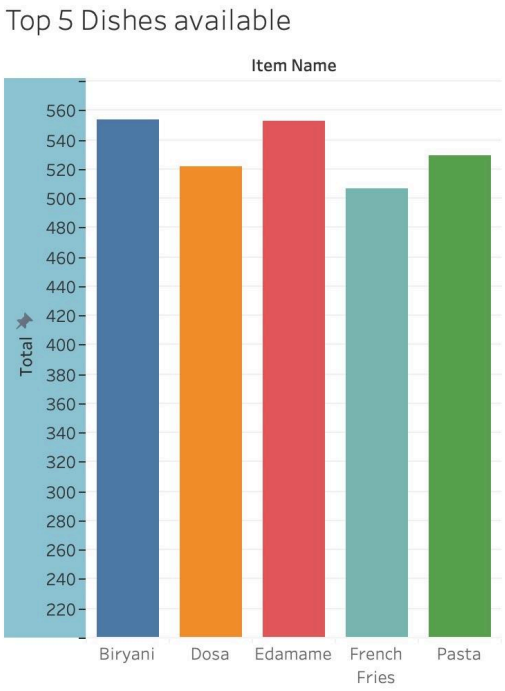


Tableau Graph

3) What is month on month total revenue from all orders

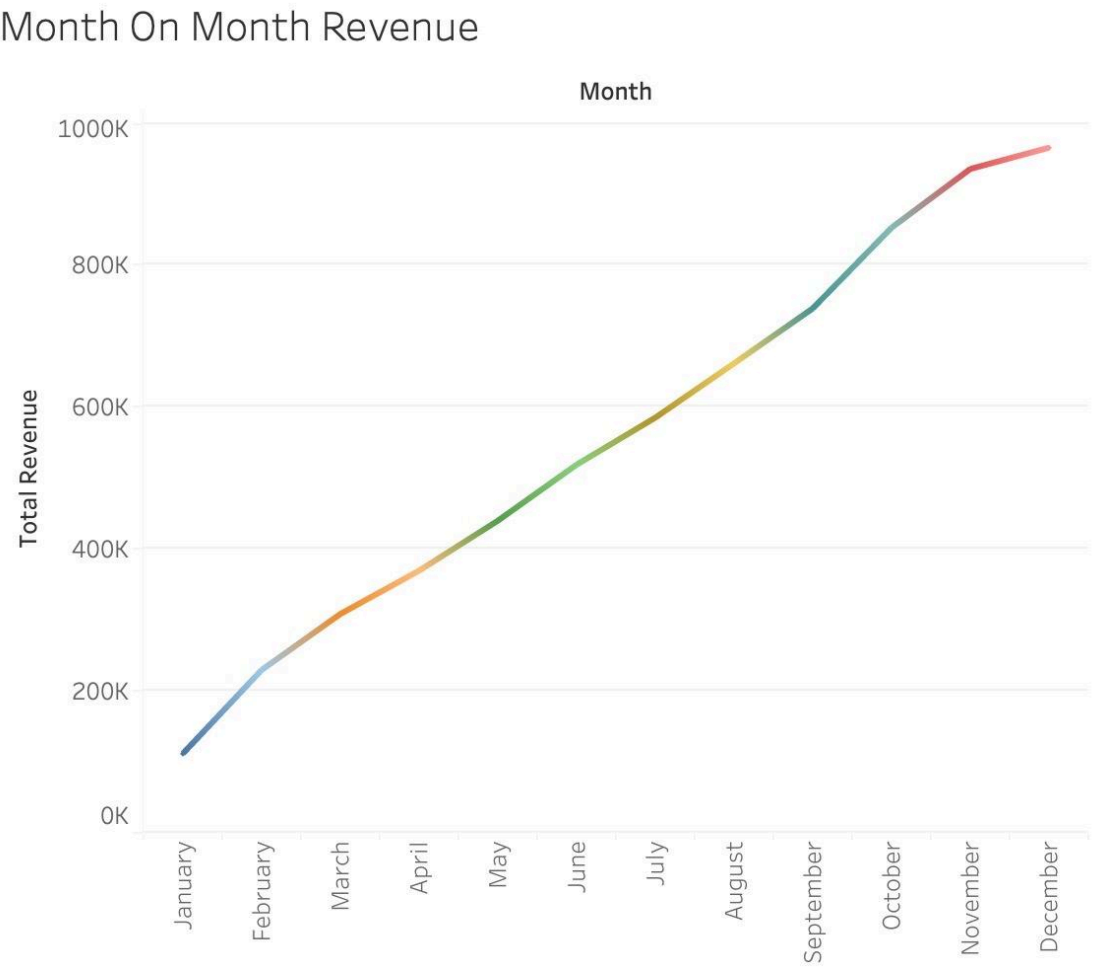
Query:

```
with cte as (
SELECT  MONTHNAME(order_date) as month, month(order_date) as
month_num, ROUND(SUM(m.price)) as price from order_details o join
menu_items m on
o.item_id = m.menu_item_id group by month, month(order_date) order by
month(order_date) )

select month , SUM(price) over(order by month_num) as total_revenue
from cte;
```

Month	
January	1,11,674
February	2,29,522
March	3,08,439
April	3,69,494
May	4,39,922
June	5,18,890
July	5,85,160
August	6,61,713
September	7,39,164
October	8,52,878
November	9,35,715
December	9,65,702

TABLEU



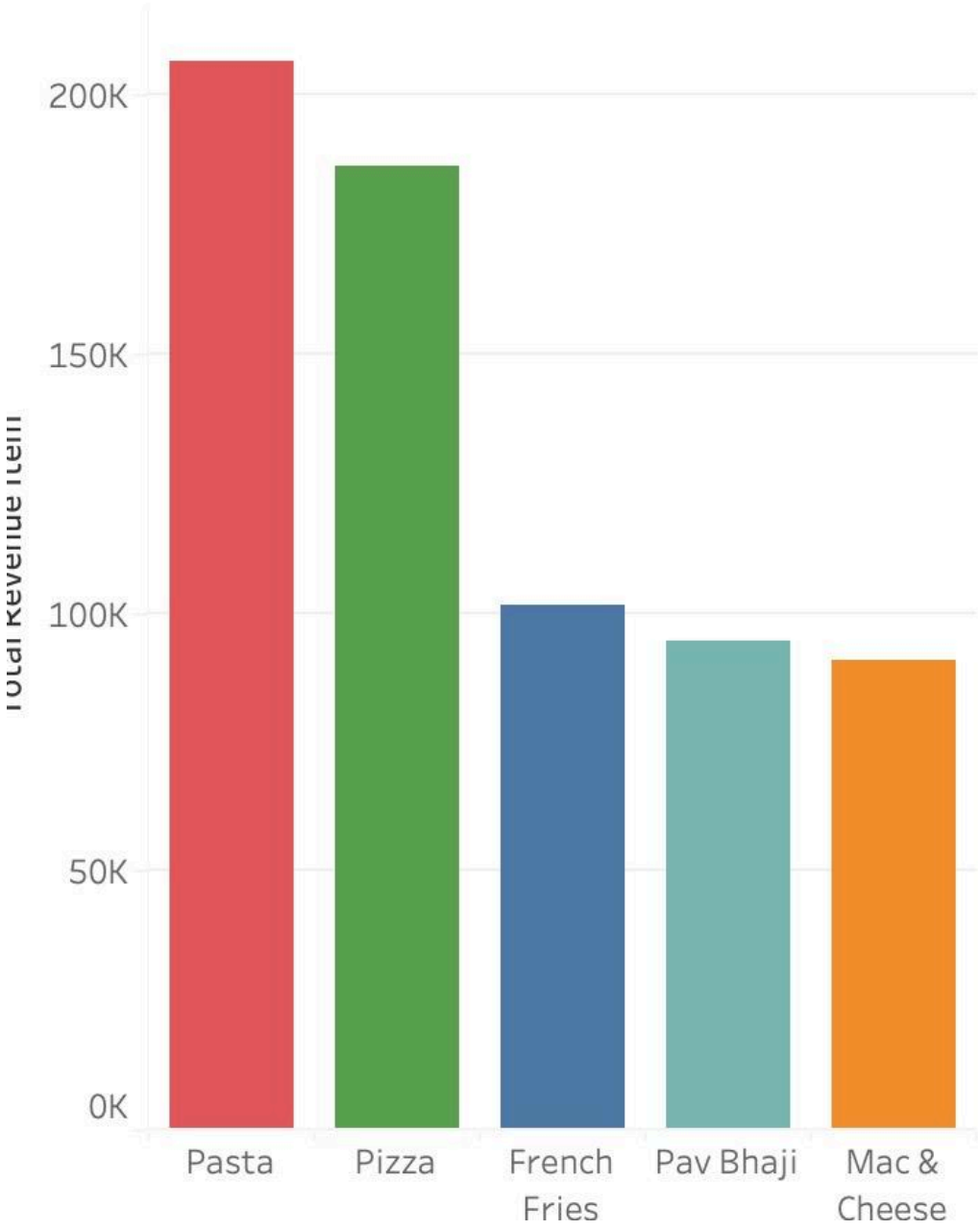
4) What are top 5 Revenue generating products in entire year?

Query:

SELECT item_name, ROUND(SUM(price)) as total_revenue_item FROM order_details o join menu_items m on o.item_id = m.menu_item_id group by item_name order by ROUND(SUM(price)) desc LIMIT 5

Item Name	
Pasta	2,06,310
Pizza	1,86,390
French Fries	1,01,400
Pav Bhaji	94,240
Mac & Cheese	90,860

Tableau Graph:


Total Revenue Item
200K
150K
100K
50K
0K
Pasta
Pizza
French Fries
Pav Bhaji
Mac & Cheese