Analysis Document:

# Completion rate analysis:

Completion rate at slot vs day of the week:

Summary:

While overall completion rates are high and consistent, there is a slightly difference it depends upon the number of orders placed.

* + Most completion rates are close to 100%, indicating a high likelihood of order completion across various days and time slots.
  + Sunday evening has the highest completion rate among all day and time slot combinations.
  + Saturday night has the lowest completion rate among all day and time slot combinations.
  + Late Night slots generally have lower completion rates indicating potential challenges or issues during this time.
  + Almost afternoon and evening time slots are equal.
  + Friday morning has 2nd lowest completion rate.

**completion rate at drop area level:**

Summary:

The overall completion rate for all locations is approximately 99.55%, indicating a high success rate in order fulfillment.

1. **High Completion Rates (Close to 100%):**

* The majority of delivery areas, including Akshaya Nagar, Arekere, Banashankari Stage 2, Bannerghatta, Basavanagudi, Bellandur - Off Sarjapur Road, Bellandur, APR, Bellandur, Ecospace, Bellandur, Sakara, Bellandur, Sarjapur Road, Bilekahalli, Binnipet, Bomannahali - MicoLayout, Brookefield, BTM Stage 2, Challagatta, CV Raman Nagar, Devarachikanna Halli, Doddanekundi, Frazer Town, Harlur, HSR Layout, ITI Layout, Jayanagar, JP Nagar Phase 1-3, JP Nagar Phase 4-5, JP Nagar Phase 6-7, JP Nagar Phase 8-9, Kadubeesanhali, Prestige, Kadubeesanhali, PTP, Kumaraswamy Layout, Mahadevapura, Manipal County, Pattandur, Richmond Town, Sarjapur Road, Victoria Layout, Vimanapura, Viveka Nagar, Wilson Garden, Shantinagar, Yemalur, have completion rates close to 100%.

1. **Areas with Lower Completion Rates:**

* **Bellandur, ETV (50.00%), Domlur, EGL (75.00%), Marathahalli (66.67%), Indiranagar (87.50%), Viveka Nagar (85.71%):** These areas have lower completion rates, indicating potential challenges or issues affecting order fulfillment.

1. **Areas with 0% Completion:**

* **Cox Town, Whitefield:** These areas show 0% completion rates. It may cause because of such as operational issues, lack of service coverage, or data anomalies.

**Completion rate at number of products ordered level:**

Summary:

The data indicates a high level of efficiency and reliability in completing orders across various quantities of products.

* As the number of products in an order increases, the completion rates remain consistently high.
* Orders with 12 or more products have a 100% completion rate, indicating a high level of success in fulfilling larger orders. Except 14 and 16.
* The completion rates for orders with 1 to 11 products range from 99.25% to 99.82%. These fluctuations are relatively minor, suggesting a consistent and reliable fulfillment process across different order sizes.
* The grand total completion rate is 99.55%, highlighting the overall effectiveness and success of order fulfillment across all product quantities.
* Here 1 and 16 are referred to a low completion rate around 99.2%.

Pattern Observed in completion rate:

* Late Night slots generally have lower completion rates.
* **Cox Town, Whitefield:** These areas show 0% completion rates.
* The top most three areas where the number of orders is higher are Harlur,HSR Layout, ITI Layout has 99% completion rate other than 100%.
* Orders with 12 or more products have a 100% completion rate, indicating a high level of success in fulfilling larger orders.

# Order Level analysis:

**order distribution at slot and delivery area level:**

Summary:

The data highlights the distribution of orders across different time slots and delivery areas. Understanding these patterns can help optimize resources, plan delivery schedules, and improve service efficiency in response to varying demand across different locations and times.

* HSR Layout stands out as the delivery area with the highest number of orders across all time slots, indicating a high demand in this area.
* Then ITI Layout and Harlur stand 2nd and 3rd highest order area.
* Bomannahali – MicoLayout and Kudlu has a large number of orders, especially during the afternoon time slot.
* Some areas, like Cox Town, CV Raman Nagar, Pattandur and JP Nagar Phase 8-9, have relatively low order counts, suggesting lower demand or less frequent use of the service in these areas.
* Afternoon and Morning slots are the most popular, collectively contributing over 11,000 orders
* Late Night has the lowest order count among the time slots.
* The grand total of orders is 22,823, with the highest counts in HSR Layout, Harlur, and ITI Layout.

**Areas having highest increase in monthly orders (from Jan to Sep):**

Summary:

The data highlights the distribution of orders across months and delivery areas. Here we can see the monthly orders across every areas. Analysed the updated data on the count of order IDs in different areas for each month. Here are some additional insights based on the monthly order distribution.

* The total order count shows a general upward trend, indicating growth over the months. The highest order count is observed in September (4,231 orders), suggesting a potential increase in demand during that month.
* HSR Layout consistently has the highest monthly order count, with a noticeable increase in September. This area seems to experience consistent growth in customer demand.
* January and February month has lowest number of orders.
* Area wise orders, some areas, like Cox Town, CV Raman Nagar, Pattandur and JP Nagar Phase 8-9, have relatively low order counts, suggesting lower demand or less frequent use of the service in these areas.
* Compare the monthly growth rates of different areas to identify regions where the business is gaining traction or areas that might require additional attention.
* The total order counts show a steady increase over the months, indicating overall business growth.

D**elivery charges as a percentage of product amount at slot and month level:**

Summary:

The data highlights the distribution of delivery charges across months and slots. Here we can see the delivery charge across every slots and month level.

* + Late Night consistently has a higher percentage of delivery charges compared to other time slots. This might indicate that deliveries during the Late Night slot incur relatively higher delivery charges as a percentage of the product amount.
  + January has the highest average delivery charge percentage across all time slots, while September has the lowest.
  + Morning and Night slots show relatively consistent delivery charge percentages compared to other time slots.
  + The grand total average of the delivery charge as a percentage of the product amount is approximately 5.86%.

**Discount as a percentage of product amount at slot and month level:**

Summary:

The data highlights the distribution of discounts across months and slots. Here we can see the discounts across every slots and month level.

* + August stands out with the highest discount (ie; 20.82% of product amount) across all time slots. This could be due to specific events or promotions during that month.
  + 2nd highest discount at September months(ie; 10.36% of product amount), this could also be due to holiday or festival season.
  + Morning and Afternoon slots have relatively stable discount across the months. This suggests consistent values for discounts during these time slots.
  + Evening and Night slots consistently show higher discounts compared to other time slots. This suggests that the values of discounts are generally higher during these time slots.
  + The grand total shows that the overall average discount percentage is approximately 6.37%.

**Discount as a percentage of product amount at drop area and slot level:**

Summary:

The data highlights the distribution of discounts across Drop area and slots. Here we can see the discounts across every slots and drop area level.

* Some locations contribute significantly to the overall discount. For example, Jayanagar and HSR Layout have high values in the Evening slot, indicating that these locations may experience higher values of discount during that time.
* Jayanagar has the highest % discount in the Evening slot (35.61%), indicating potentially significant promotions or offers during that time.
* Different time slots exhibit varying % discount levels across locations. Afternoon, Evening, and Night slots generally have higher % discounts compared to Late Night and Morning.
* Several locations, like Banashankari Stage 2, Basavanagudi, Binnipet, Cox Town, CV Raman Nagar, Frazer Town, Kumaraswamy Layout, Mahadevapura, Marathahalli, Pattandur, Richmond Town, Vimanapura, and Whitefield, have zero % discount across all slots.
* The grand total shows that the overall average % discount is approximately 6.37%.

# Customer Level analysis:

**Completion rate at source level:**

Summary:

The consistently high completion rates across all sources, ranging from 99.44% to 99.63%, indicate a high level of operational efficiency in the order fulfillment process. This suggests that the platform effectively handles and completes orders, ensuring a reliable service for customers**.**

* All sources have high completion rates, indicating successful engagement or conversion from these channels.
* Organic sources have the highest completion rate at 99.63%, suggesting strong performance without paid promotions.
* The completion rate for the Offline Campaign is lower compared to the digital channels.
* The completion rates for Facebook, Google, Instagram, and Snapchat are relatively close, showcasing consistency in performance across these platforms.
* The overall completion rate, considering all sources, is 99.55%

**Aggregated LTV at source level:**

* Here we can notice that Organic and Google sources have highest aggregated LTV.
* Instagram has low aggregated LTV, whereas remaining sources are almost equal.

**Aggregated LTV at Month level:**

* Here we can notice that January month has highest aggregated LTV.
* September month has lowest aggregated LTV.

**Is there any pattern in order rating across slots, number of items placed, delivery charges, discount:**

**Pattern we observed here is:**

* Slot wise: Afternoon slot has high rating and late night slot has low rating.
* Product wise: Items 22, 23, and 24 have perfect ratings of 5.00. These items stand out as having received the highest possible satisfaction from customers. While most items have similar high ratings, there is some variability, such as item 21 with a lower rating of 4.63. This indicates that there may be specific items with a comparatively lower satisfaction level.
* Delivery charge wise: Order with a rating of 1.00 and orders with a rating of 3.67 and 4.33 might be outliers, suggesting some level of dissatisfaction. Many orders have received a perfect rating of 5.00, indicating a high level of satisfaction.
* Discount Wise: The average order rating shows a pattern concerning discounts. Generally, orders with higher discounts receive higher ratings. This indicates that customers tend to appreciate and rate orders more positively when they receive attractive discounts.

# Deliver Level analysis:

**Average overall delivery time at month and delivery area level:**

Summary:

The data highlights the distribution of average delivery time across Drop area and months. Here we can see the average delivery time across every months and drop area level.

* Delivery times vary across different locations. For example, Harlur and Bommanahalli have longer average delivery times, while places like Wilson Garden and Domlur generally have shorter delivery times.

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* May month has highest average delivery time and February month has lowest average delivery time.
* Some locations, like "Whitefield," have extremely short delivery times, which could be an anomaly or may indicate a specific delivery process.
* "Mahadevapura" stands out with a considerably longer delivery time, warranting investigation into the reasons behind such outliers.
* The grand total average delivery time for all locations and months is approximately 24 minutes. However, this is a rough estimate and may not be entirely accurate without considering factors like distance, traffic, and order complexity.

**average overall delivery time at month and weekday/weekend level:**

Summary:

The analysis of average overall delivery time provides insights into variations across months, weekdays, and weekends.

* On average, the delivery time is shorter on weekdays compared to weekend. Across all months, the weekend average is approximately 25 minutes, while weekdays have an average delivery time of around 23 minutes.
* This suggests that the delivery process may be more efficient during weekdays, possibly due to lower traffic or increased availability of resources.
* Number of orders placed in weekdays are higher compared to weekends but weekdays delivery time is higher.
* May month has highest average delivery time and whereas February and September month has shortest average delivery time.

**average overall delivery time at slot level:**

Summary:

The analysis of average overall delivery time across different slots provides valuable insights for operational planning, resource allocation, and customer satisfaction.

* Here we can see the average overall delivery time is almost same at afternoon, evening and morning slots around 25 minutes.
* Late-night deliveries show the shortest average time, with an average of 17 minutes and 29 seconds.
* Late-night deliveries appear to be more efficient, possibly due to lower traffic or less congestion during those hours.
* Afternoon and morning deliveries have slightly longer average times, suggesting potential areas for optimization.
* The overall average delivery time across all time slots is 24 minutes and 15 seconds.

**Do you see any pattern in delivery charges with slot or delivery area:**

Summary:

The analysis of delivery charges for each location based on different time slots. Some locations have higher charges in specific time slots, indicating potential variations in delivery costs.

* **HSR Layout:** Highest total charges across all time slots.
* **ITI Layout:** Second-highest total charges.
* **Bellandur, Green Glen:** Notable charges, especially in the afternoon and evening.

**Do you see any pattern in delivery time and delivery area. If yes then find out logical reason**:

Summary:

The completion time varies widely across different delivery areas, and factors like location, logistics efficiency, and demand levels likely contribute to these variations. Areas with longer completion times may benefit from optimization strategies to improve overall delivery efficiency.