



ABOUT US

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BUSINESS PROBLEM AND USE CASE UNDERSTANDING

Domain:

Food & Beverage / Hospitality

Problem:

Users often struggle to find reliable, realtime restaurant data (like pricing, location, offers, ratings).

Use Case:

Aggregate restaurant data from easy-dine to help users make informed dining decisions based on location, cuisine, budget, and deals.



OBJECTIVE OF THE PROJECT

Hungry for insights? We took on the challenge of scraping restaurant data straight from Easy-Dine's Hyderabad lunch listings! From sizzling biryanis to cozy cafés, We explored and collected rich details like restaurant names, locations, cuisine types, ratings, average prices, and exclusive offers. The goal? To dig into the food scene with data and uncover what makes Hyderabad's lunch culture truly delicious.













WEB SCRAPING DETAILS

Libraries Used:

- BeautifulSoup
- pandas
- Matplotlib
- Seaborn

Steps Followed:

- Sent client requests to the web page.
- Parsed HTML using BeautifulSoup.
- Extracted data fields: restaurant names, ratings, locations, cuisine, price, and offers.
- Stored extracted data into structured lists, then converted into a DataFrame.



THE DATA ANALYSIS PROCESS





Data Collection



Data Manipulation Steps



Insights & Reporting



Data Cleaning



Data Analysis

BEFORE SCRAPING:



'<!DOCTYPE html><html lang="en"><head><meta charSet="utf-8"/><link rel="alternate" href="https://www.eazydiner.com/restaurants" hrefLang="en-in"/><link rel ="alternate" href="https://www.eazydiner.com/restaurants" hrefLang="x-default"/><link rel="icon" href="/images/favicon.ico"/><link rel="next" href="https:// www.eazydiner.com/restaurants?date=2025-07-10&meal_period=lunch&location=hyderabad&page=2"/><meta name="viewport" content="width=device-width, i nitial-scale=1.0, maximum-scale=1.0, user-scalable=0"/><title>The 20 Best Restaurants in HyderabadJul 2025 | EazyDiner</title><meta name="description" conte nt="Discover the best restaurants near me. Get up to 50% off at restaurants near me. Find the menus, photos, ratings, price for two, and reviews on EazyDine r."/><meta name="theme-color" content="#7075C3"/><meta property="og:title" content="The 20 Best Restaurants in HyderabadJul 2025 | EazyDiner"/><meta propert y="og:description" content="Discover the best restaurants near me. Get up to 50% off at restaurants near me. Find the menus, photos, ratings, price for two, and reviews on EazyDiner."/><meta property="og:url"/><meta property="al:ios:url"/><meta property="al:ios:app_store_id" content="1018594093"/><meta property ="al:ios:app_name" content="EazyDiner - Restaurant Reservations"/><meta property="al:android:url"/><meta property="al:android:app_name" content="EazyDiner" Restaurant Booking"/><meta property="al:android:package" content="com.easydiner"/><meta name="twitter:card" content="summary_large_image"/><meta name="twitter:card" er:site" content="@eazydiner"/><meta name="twitter:title" content="The 20 Best Restaurants in HyderabadJul 2025 | EazyDiner"/><meta name="twitter:descriptio n" content="Discover the best restaurants near me. Get up to 50% off at restaurants near me. Find the menus, photos, ratings, price for two, and reviews on EazyDiner."/><meta name="twitter:image"/><meta name="twitter:app:country" content="IN"/><meta name="twitter:app:name:iphone" content="EazyDiner - Restaurant Reservations"/><meta name="twitter:app:id:iphone" content="1018594093"/><meta name="twitter:app:url:iphone"/><meta name="twitter:app:name:googleplay" content t="EazyDiner - Restaurant Booking"/><meta name="twitter:app:id:googleplay" content="com.easydiner"/><meta name="twitter:app:url:googleplay"/><meta property ="fb:app_id" content="320917718073942"/><link rel="preconnect" href="https://fonts.googleapis.com"/><meta name="google-site-verification" content="ovS0stk56" wD8dadc1E8Mm-YtrjTCa3g8ydX7A0MIoU0"/><script type="application/ld+json">[{"@context":"https://schema.org","@type":"ItemList","name":"Featured Restaurant s","itemListElement":[{"@type":"ListItem","position":1,"item":{"@type":"Restaurant","name":"The Ofen","url":"https://www.eazydiner.com/hyderabad/the-ofen-ba njara-hills-hyderabad-648800", "image": "https://dt419bx31tioh.cloudfront.net/eazymedia/restaurant/648800/restaurant120230731121937.jpg?width=818&height=450&m ode=crop","address":{"@type":"PostalAddress","streetAddress":"Banjara Hills, Hyderabad","addressLocality":null,"addressRegion":"Hyderabad","addressCountr y":"India"},"aggregateRating":{"@type":"AggregateRating","ratingValue":4,"ratingCount":4}}},{"@type":"ListItem","position":2,"item":{"@type":"Restaurant","n ame":"Forefathers","url":"https://www.eazydiner.com/hyderabad/forefathers-road-no-45-jubilee-hills-hyderabad-696918","image":"https://dt4l9bx31tioh.cloudfro nt.net/eazymedia/restaurant/696918/restaurant720240718060903.jpg?width=818&height=450&mode=crop","address":{"@type":"PostalAddress","streetAddress":"Road N o. 45, Jubilee Hills, Hyderabad", "addressLocality":null, "addressRegion": "Hyderabad", "addressCountry": "India"}, "aggregateRating": {"@type": "AggregateRating" | g", "ratingValue":4, "ratingCount":8}}}, {"@type":"ListItem", "position":3, "item":{"@type":"Restaurant", "name":"Aster Cafe & Kitchen", "url":"https://www.eazydin er.com/hyderabad/aster-cafe-kitchen-road-no-12-banjara-hills-hyderabad-695065","image":"https://dt4l9bx31tioh.cloudfront.net/eazymedia/restaurant/695065/res taurant220240509082907.jpg?width=818&height=450&mode=crop","address":{"@type":"PostalAddress","streetAddress":"Road No. 12, Banjara Hills, Hyderabad","addre ssLocality":null,"addressRegion":"Hyderabad","addressCountry":"India"},"aggregateRating":{"@type":"AggregateRating","ratingValue":4,"ratingCount":1}}},,{"@ty pe":"ListItem","position":4,"item":{"@type":"Restaurant","name":"One8 Commune","url":"https://www.eazydiner.com/hyderabad/one8-commune-hitech-city-hyderabad -695370", "image": "https://dt4l9bx31tioh.cloudfront.net/eazymedia/restaurant/695370/restaurant020240523114248.jpeg?width=818&height=450&mode=crop", "address": {"@type":"PostalAddress","streetAddress":"Hitech City, Hyderabad","addressLocality":null,"addressRegion":"Hyderabad","addressCountry":"India"},"aggregateRat ing":{"@type":"AggregateRating","ratingValue":4,"ratingCount":24}}},{"@type":"ListItem","position":5,"item":{"@type":"Restaurant","name":"Golconda Pavilio n", "url": "https://www.eazydiner.com/hyderabad/golconda-pavilion-itc-kohenur-hyderabad-657734", "image": "https://dt4l9bx31tioh.cloudfront.net/eazymedia/res

AFTER SCRAPING:

| stau | Category | restuaurants | rating | location_data | food_price | offer_data | food_item |
|----------------------|-----------|--|--------|-------------------------|------------|------------|--------------------------------|
| 0 | lunch | The Ofen | 5.0 | Banjara Hills | 2000 | 45% Off | Mexican, Italian, Beverages |
| 1 | lunch | Forefathers | 4.5 | Jubilee Hills | 1500 | 25% Off | Multicuisine |
| 2 | lunch | Tevar - The Progressive Indian Kitchen & Bar | 4.1 | Hitech City | 4000 | 25% Off | Modern Indian |
| 3 | lunch | One8 Commune | 4.7 | Hitech City | 2500 | 25% Off | Multicuisine |
| 4 | lunch | Aster Cafe & Kitchen | 4.0 | Banjara Hills | 1000 | 40% Off | Multicuisine |
| | **** | | | Sept. | | ••• | |
| 695 | breakfast | Marley's Joint | 3.6 | Secunderabad | 700 | 35% Off | Multicuisine |
| 696 | breakfast | Ukusa | 4.8 | Jubilee Hills | 800 | 35% Off | Multicuisine |
| 697 | breakfast | Ambali Gampa | 3.4 | Hotel Taar Tangerine | 1400 | 35% Off | Multicuisine |
| 698 | breakfast | Cafe Baatakani | 4.5 | L B Nagar | 1000 | 35% Off | Multicuisine |
| 699 | breakfast | Alley 91 Bowling Bar | 4.0 | Financial District | 1800 | 40% Off | Fast Food |
| 700 rows × 7 columns | | | | | | | |

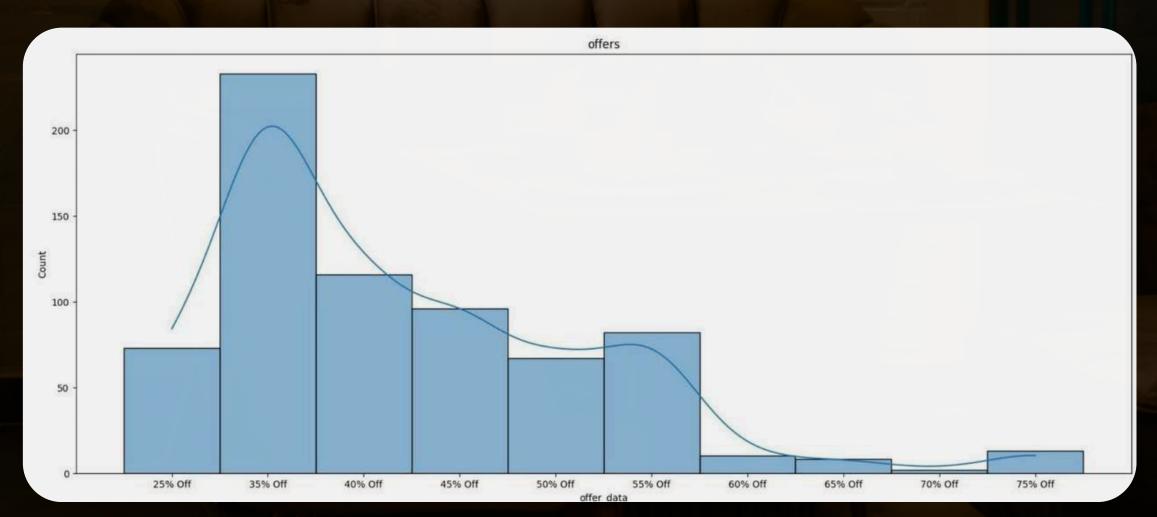
BEFORE AND AFTER CLEANING RAW DATA

```
eazydiner_data.info()
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RangeIndex: 700 entries, 0 to 699
Data columns (total 7 columns):
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    Column
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    Category 700 non-null
    restuaurants 700 non-null
                                 object
            700 non-null
                                 object
    rating
    location_data 700 non-null
                                 object
                                 int64
    food_price 700 non-null
    offer_data 700 non-null
                                 object
    food_item 700 non-null
                                 object
dtypes: int64(1), object(6)
memory usage: 38.4+ KB
```

```
eazydiner_data.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 700 entries, 0 to 699
Data columns (total 7 columns):
    Column
                  Non-Null Count
                                Dtype
    Category 700 non-null
                                 category
    restuaurants 700 non-null
                                 object
    rating
                 699 non-null
                                 float64
    location_data 700 non-null
                                 object
    food_price 700 non-null
                                 category
    offer_data 700 non-null
                                 category
    food_item 700 non-null
                                 object
dtypes: category(3), float64(1), object(3)
memory usage: 26.0+ KB
```



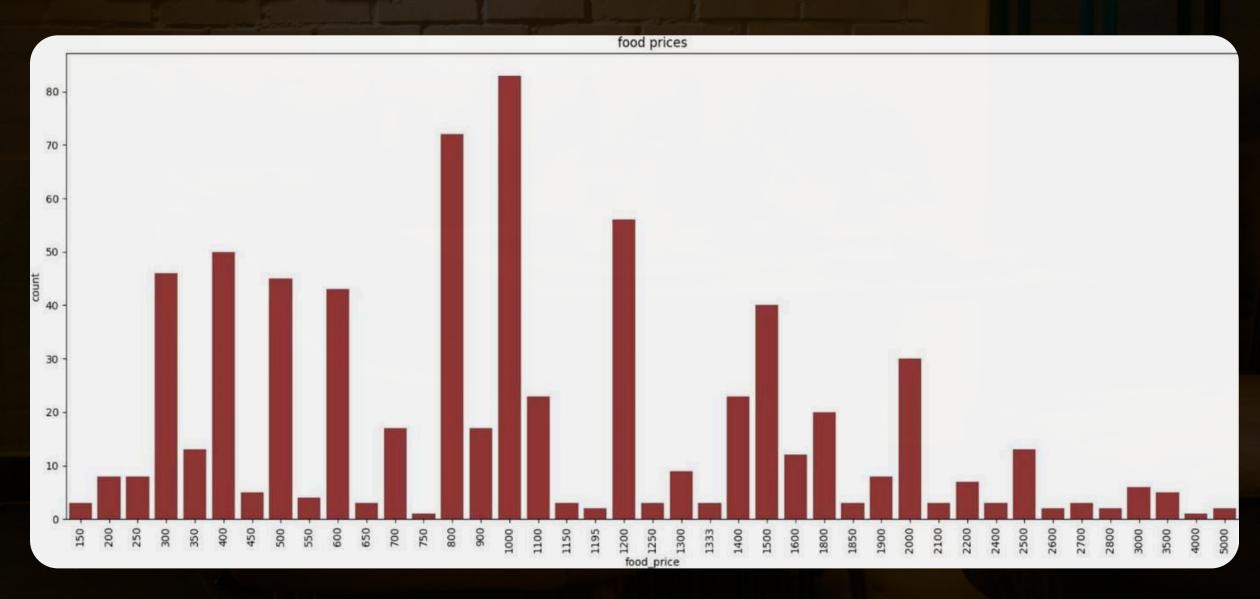
DISTRIBUTION OF DISCOUNT OFFERS: HISTOGRAM WITH KDE"



This plot shows how often different discount percentages appear in the dataset. The bars (histogram) represent how many offers fall into each discount range, while the smooth line (KDE curve) shows the overall trend. Most discounts are around 35% to 40%, with fewer offers at very low or very high discounts. The chart was made using Seaborn and Matplotlib in Python.



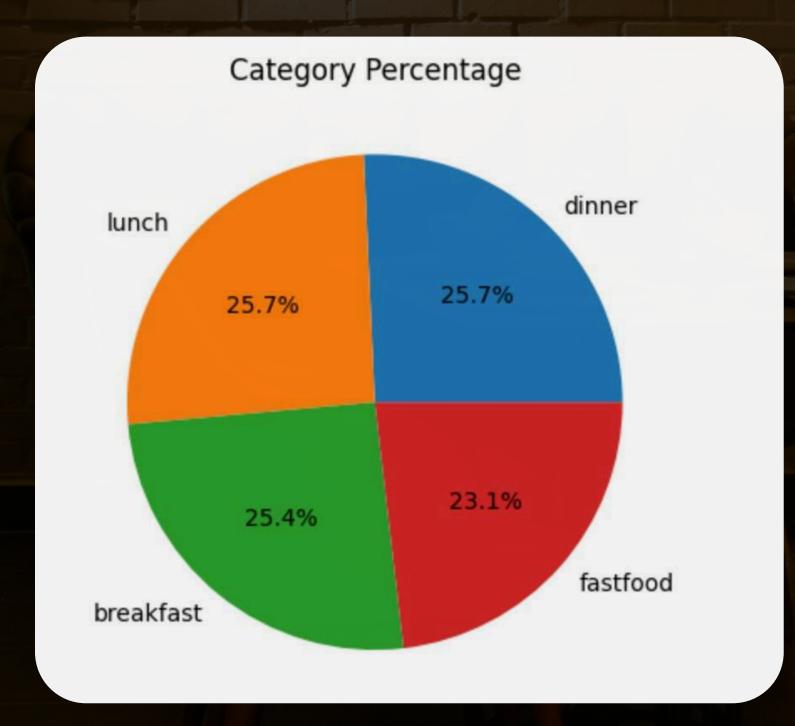
DISTRIBUTION OF FOD PRICES: COUNT PLOT ANALYSIS"



This chart shows how often different food prices appear in the dataset. The x-axis shows price values, and the y-axis shows how many times each price occurs. Prices around ₹200–₹300 appear most often. As prices go higher, they become less common. The chart was made using Matplotlib and includes formatting for better readability.



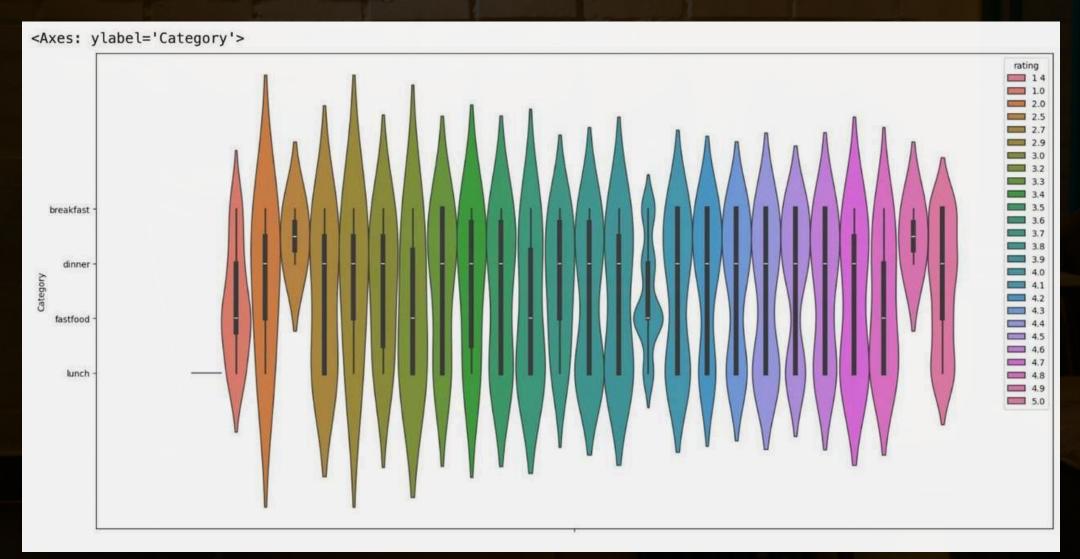
"DISTRIBUTION OF MEAL CATEGORIES BY PERCENTAGE"



This pie chart shows the percentage share of different meal categories—dinner, lunch, breakfast, and fast food. Dinner and lunch are the most common, each accounting for 25.7%, followed by breakfast at 25.4%, and fast food at 23.1%.



"MEAL CATEGORY VS. RATING DISTRIBUTION: VIOLIN PLOT WITH HUE ANALYSIS"



This violin plot visualizes the distribution of ratings across various meal types such as breakfast, lunch, dinner, and fast food. The width of each section represents the density or frequency of ratings, highlighting how common certain ratings are within each meal category. Different colors represent subgroups (e.g., cuisine or region), making it easier to compare rating patterns and spot trends across different types of meals.



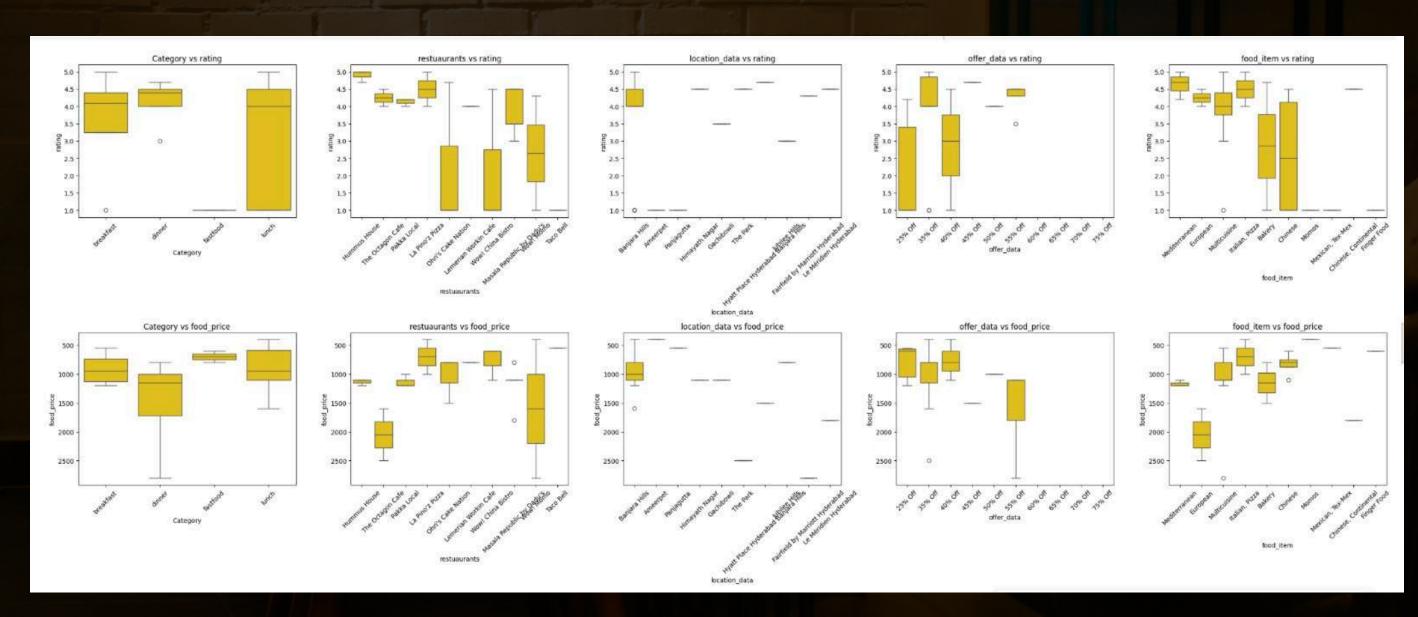
"MEAL CATEGORY VS. FOOD PRICE: BOX PIOT DISTRIBUTION"



This box plot illustrates the variation in food prices across different meal types such as breakfast, lunch, dinner, and fast food. The central boxes display the interquartile range (typical price spread), while individual dots highlight outliers that deviate from the norm. Styled in orange with clear labels, the plot enhances readability and helps identify pricing patterns and anomalies among meal categories.



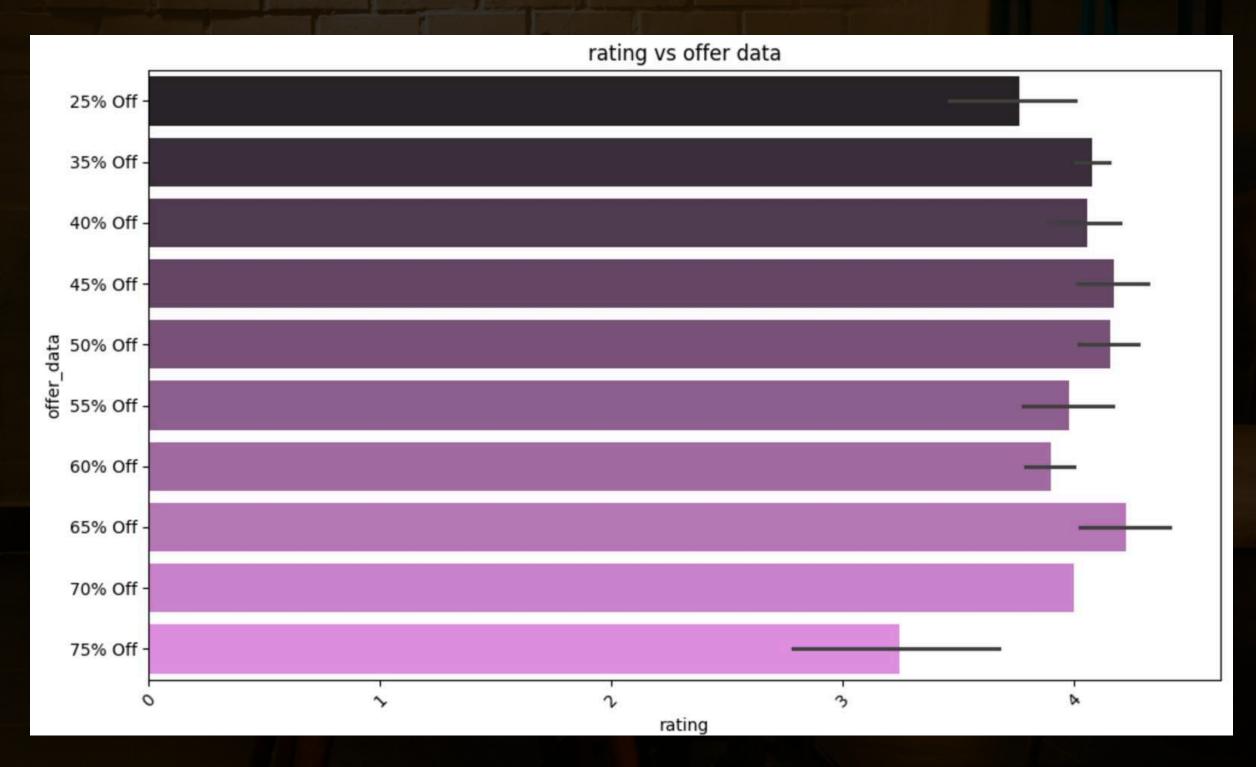
MULTI-FACETED ANALYSIS: RATING AND FOOD PRICE DISTRIBUTIONS ACROSS CATEGORIES"



This multi-panel chart shows box plots comparing ratings and food prices across different categories like restaurants, locations, and offers. The top row shows how ratings vary, and the bottom row shows price differences. Yellow boxes show the data range, with dots for outliers. It's a clear way to compare trends and variability in the dataset.



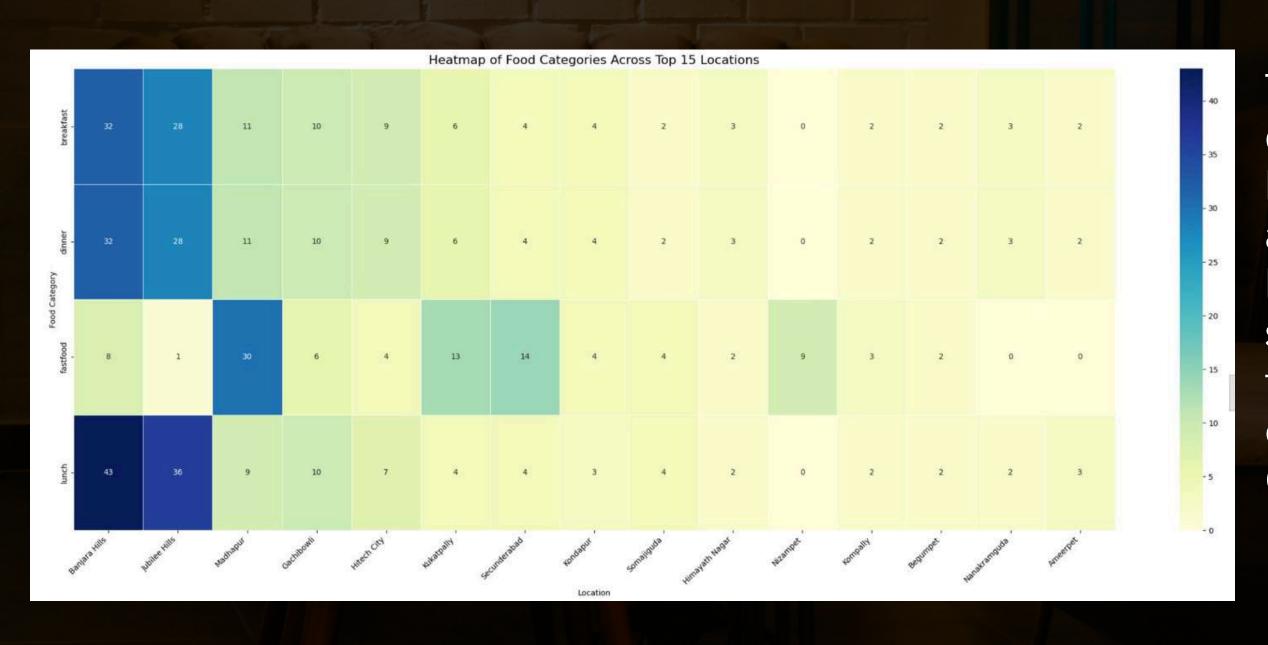
"RATING DISTRIBUTION BY OFFER CATEGORY: BAR PLOT ANALYSIS"



This bar plot shows how restaurant ratings vary across different offer types. Each bar represents the average rating for a specific offer category. The plot, styled in violet and made using Seaborn and Matplotlib, helps compare how different offers affect ratings. It provides a clear visual summary of which offers are more favorably received by customers. This can be useful for understanding consumer preferences and optimizing marketing strategies.



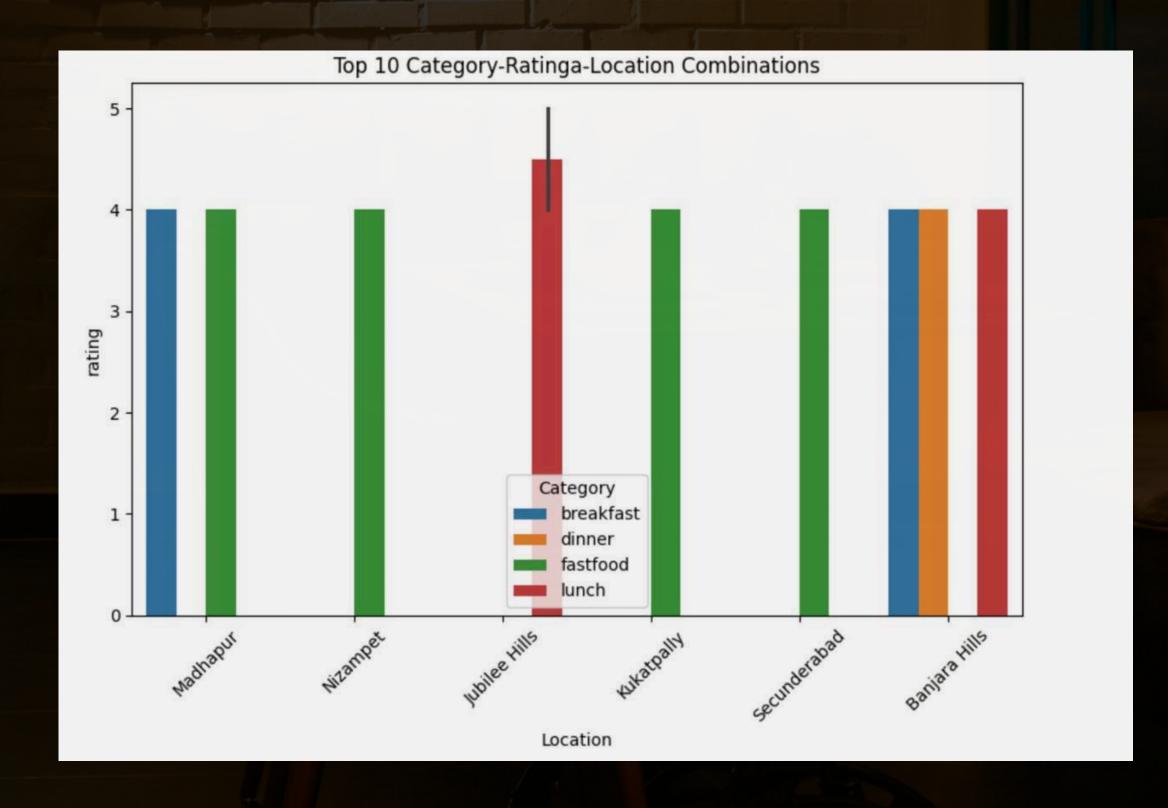
THEATMAP OF FOD CATEGORIES ACROSS TOP 15 LOCATIONS"



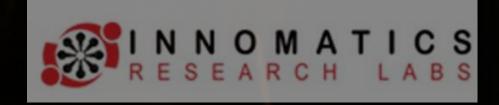
This heatmap shows how often different food categories (like breakfast, lunch, dinner, fast food) appear in the top 15 locations. Darker blue means higher counts. The x-axis shows locations, and the y-axis shows food types. It helps spot trends and compare food popularity across areas. Created using Seaborn and Matplotlib.



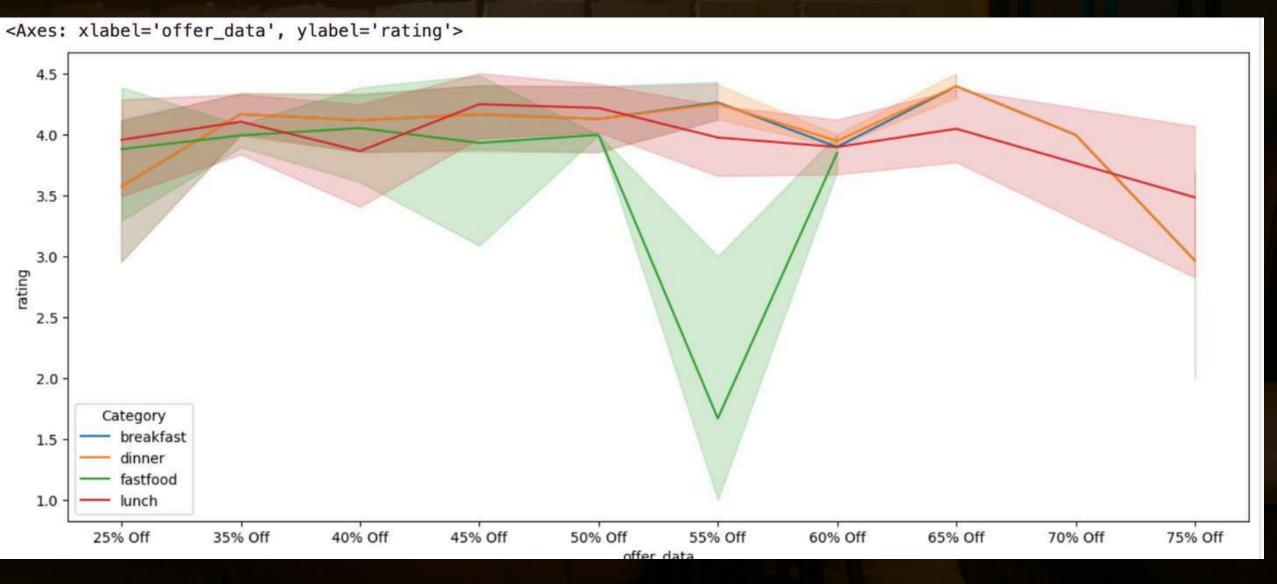
TOP-RATED FOOD CATEGORIES ACROSS HYDERABAD IOCATIONS"



This bar chart showcases the top 10 combinations of food category, average rating, and location in Hyderabad. Each bar represents a specific category (breakfast, lunch, dinner, fast food) at a particular location. The chart highlights which food types are rated highest in different areas, offering insights into popular dining preferences. It also helps identify location-based trends, such as where a certain meal type consistently performs better.



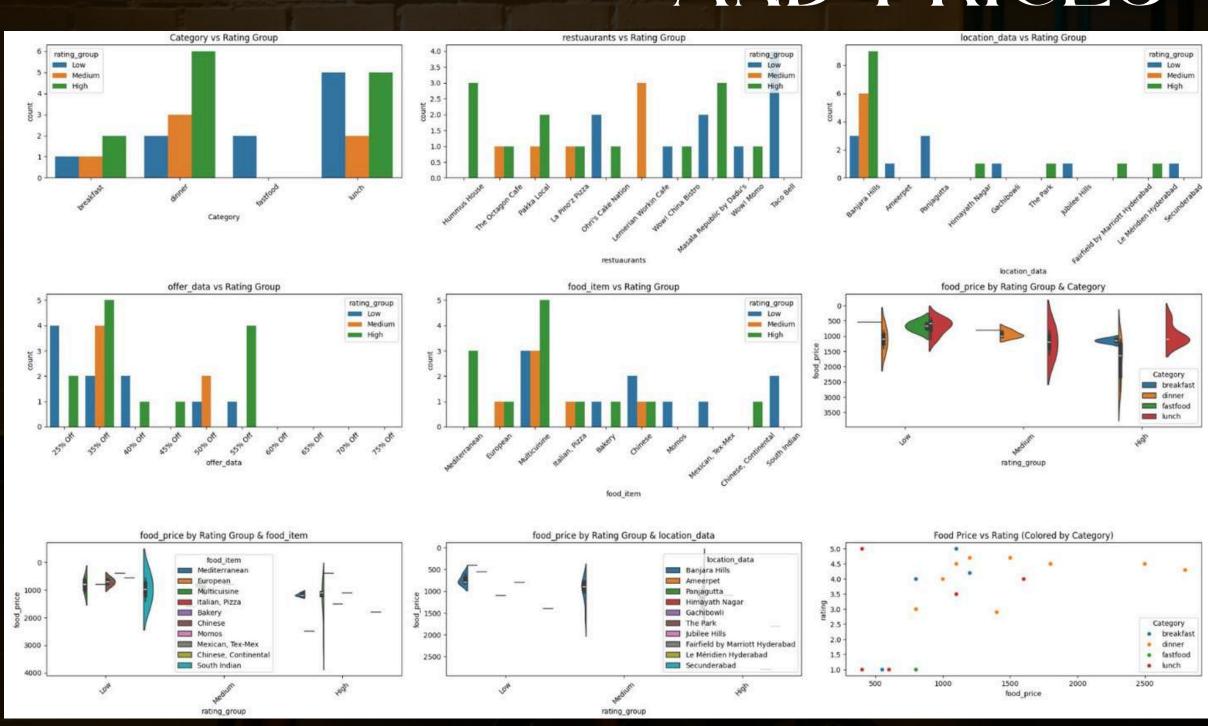
IMPACT OF DISCOUNT OFFERS ON FOOD CATEGORY RATINGS"



This line plot shows how customer ratings vary across food categories with different discount levels (25%–75%). While most categories stay consistent, fast food ratings drop sharply at 55% off, hinting at possible quality issues. Breakfast and lunch maintain stable, higher ratings regardless of discounts.



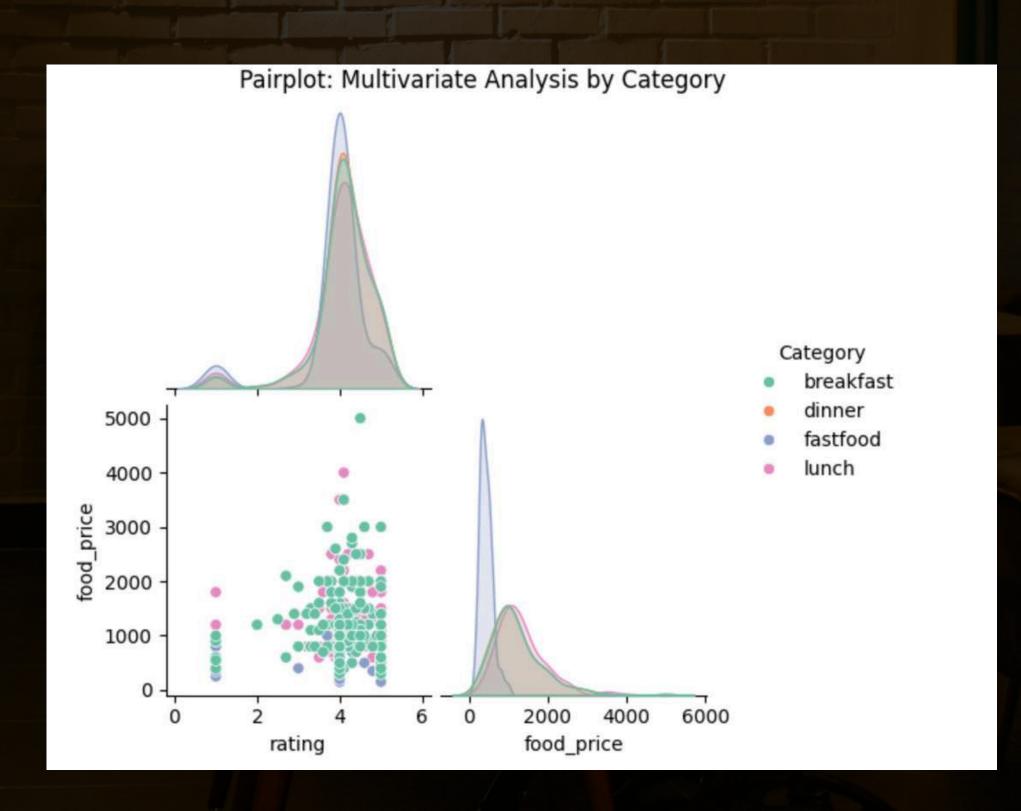
"COMPREHENSIVE ANALYSIS OF RATINGS ACROSS CATEGORIES. OFFERS. LOCATIONS. AND PRICES"



This dashboard reveals how ratings vary by food category, discounts, location, and price. Lunch items receive more high ratings, while fast food appears more in low-rated groups. Banjara Hills has many lowrated restaurants. Higher discounts (55%–75%) often lead to lower ratings. Multicuisine and Chinese items are common in low-rated data, and toprated foods tend to have consistent pricing.



PAIRPIOT OF FOD PRICE VS RATING ACROSS MEAL CATEGORIES"



This pairplot shows how food price relates to ratings across meal categories. Most items are rated between 3.5–4.5 and priced under ₹2000. There's no strong link between price and rating—fast food is generally cheaper, while breakfast and lunch have wider price ranges. The plot also reveals overlapping distributions among meal types, indicating similar customer satisfaction levels across categories. Created using Seaborn, it provides a multi-dimensional view that helps detect subtle patterns and outliers in the dataset.



CONCLUSION

- The EazyDiner data analysis revealed key dining trends using Python-based visualizations.
- Most restaurants offer discounts in the 35%–40% range, reflecting a consistent promotional strategy.
- Food prices vary across meal types (e.g., lunch, dinner, fast food), with premium categories generally costing more.
- Higher-rated restaurants often provide better offers, highlighting the link between value for money and customer satisfaction.
- Customer ratings and food preferences vary across locations, indicating the impact of regional tastes and service quality.
- Insights support data-driven decisions in pricing, targeted marketing, and enhancing customer engagement.

