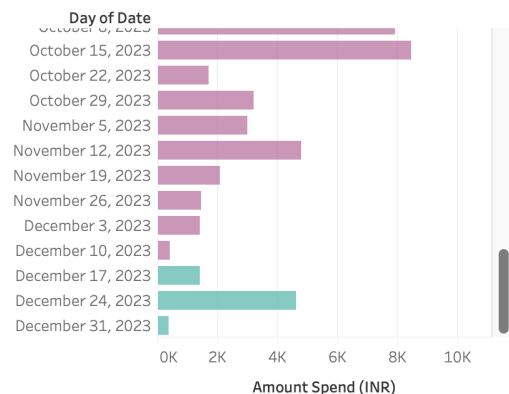


# Assignment #3: Personal Data Visualization

## Ayush Agarwal

### Comparative Analysis of Weekly Online Food Ordering Trends

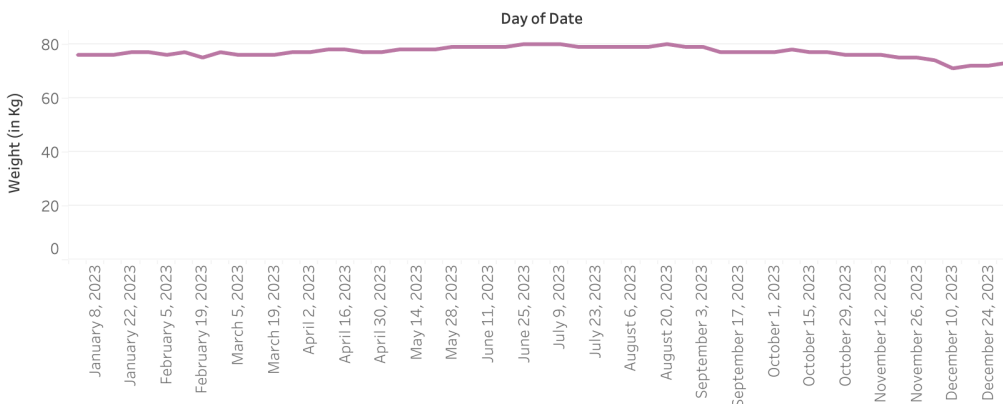
Total amount spent per week



Total orders placed per week



Weekly Variation in Weight



## Abstract

For this assignment, I have collected data about my online orders. Apps like Uber Eats, Door Dash and Grub Hub allow for convenient food ordering online. I am a foodie at heart and thus I am prone to overindulgence in these apps. I have tried to collect the number of orders made per day throughout 2023 and the money spent. I am going to analyze this data along with my weekly weight to derive insights.

## Data Collection

To collect data, I logged into the app and went to the order history page. I primarily use two apps, Zomato which is most famous Indian food aggregator app and Uber Eats which I primarily use in US. For each day, I noted down the number of orders done, amount spent, the medium

used (Zomato or Uber Eats) and the currency for payment (Indian Rupee or US Dollar). I converted the amount spent from US dollars to Indian Rupee using the exchange rate of 1\$ = ₹83. Then I aggregated this data week wise and used the sum of orders done (total orders in a week) and sum of amount spent (total amount spent in a week). For my weight data, I already had an excel sheet since I track my weight on excel weekly. I joined the two datasets on week number to get the aggregated complete dataset.

## Audience

I have tried to make something that I will like so the primary audience is me. This data is for me to analyze and see what causes me to order online excessively more, how can I take care of it and how it is related to my overall health and finances. The insights derived will help me plan better for the future so that I can save more money by being more prudent about my food choices while elevating my health at the same time. I can summarize the goals as below:

- **Situation:** Online food orders
- **Task:** Analyze and derive insights about the root cause of excessive online orders
- **Action:** Use the insights and work on them to reduce the online orders
- **Result:** Better health and finances

## Chart Types

I have used a bar chart for most of my visualization. The bar chart is simple and elegant. It is most useful to compare values and see a trend. A line chart can also serve the same purpose, but it is difficult for me to see the trend in a line chart as opposed to a bar chart. Since the primary target audience is me, I have gone ahead with a bar chart.

Another reason for bar chart over line chart is that they are more easily digestible when you have a lot of data points. If I am visualizing my quarterly orders and amount spent, then a line chart will be a better choice. Since the data is aggregated to weeks and I have 53 data points, a bar chart does the job better.

I have used line charts to visualize the change in my weight. My weight was flat for a few consecutive weeks and this trend is better captured by a line chart rather than a bar chart. The line chart is horizontal and not vertical since it is easier to read.

## Rules Followed (and broken)

I have followed the rule of no chart junk. There is no special background graph or any other art that does not have good data to ink ratio. They are more distracting than helpful and cause the audience (me in this case) to lose focus. This is also the reason I have used a bar chart as opposed to an isotype.

Another rule followed is that the axis's are not truncated for the bar charts. They start from zero. This very rule is broken for the line chart when charting my weight because it makes it easier to appreciate the difference in weight that is happening.

One broken rule is that the color scheme in bar charts is not consistent. They change colors from red (Zomato) to green (Uber Eats) and back to red. I did this because I wanted to highlight how the bars (and the trend) change when I am in India vs US.

## Learning and Insights

One insight that is straightway to see is that the amount spent is correlated with the number of orders. This trend is broken on two days, March 27, and July 3, where the orders are more but the amount spent is less. This is due to my habit of ordering mostly main course or full meal (which costs more) compared to snacks and appetizers (which costs less). During those two weeks I stayed at my friend's house and thus I did not order full meals but only appetizers and hence I have a low amount spent but a greater number of orders.

Another insight is that I do stress eating. The peaks are in those weeks where I had an interview or a tough deadline to meet. Maybe if I can plan and reduce stress for deadlines and interviews, I can control this bad habit of mine.

Evidently, as we have peaks in orders, my weight also increases in the following weeks and once the orders taper out, the weights start to decrease. Weight is kind of delayed response of number of orders and has some inertia at rest (trying to remain same)

