

FINAL REPORT

Introduction

In our daily lives, we all have many tasks and responsibilities that need to be completed. Sometimes, we spend so much time outside the home that we overlook how our daily activities may lead to unnecessary spending. We often end up spending money on social activities both essential and non-essential without realizing it. This realization led me to start recording data about my daily lifestyle.

I began by noticing that my monthly spending was inconsistent. Several factors contributed to this, such as eating out, shopping, and the frequency of going outside. Overall, these behaviors were closely tied to how often I spent time away from home.

Additionally, our daily routines vary from day to day. The places we visit often change, and our activities depend on different circumstances. These observations became the motivation for collecting data, which I then translated into the visual designs presented in the following sections.

Statement of goals

Personally, I'm a homebody. However, there are frequent occasions when I absolutely have to go out. Before I knew it, I realized I was spending a considerable amount of money on life outside the house. This led me to ask: **To what extent does the time I spend outside the house each day affect my daily spending?** To explore this, I started tracking my expenditures, the places I visit, and the number of meals I purchase outside home each day.

Most of my reasons for going out are necessities, important activities such as going to class, to work, meeting up with friends I haven't seen, or grocery shopping at the supermarket. But upon reflection, I asked myself and realized that I've hardly ever noticed or recorded the time I spend outside what I do or what I spend money on each day. This lack of self-monitoring meant that my bank balance could drop dishearteningly without me noticing.

If I track and record the data consistently, using both **objective data** (Time spent outside the house, Amount of money spent, Number of purchased meals, Number of Locations visited) and **subjective data** (Daily spending reflection, My mood each day when going outside), in line with my hypothesis, I hope this information will allow me to find answers and learn to control my spending related to going out each day, even if only slightly.

To test this, every day before the day ends, I will set up time-based reminders in the relevant data-gathering applications both phone built-in and third-party apps. I will also make sure to record the daily details and date in a spreadsheet to document the different variations each day. My hypothesis initially mentioned three pieces of data: time spent outside, amount of money, and number of meals I buy. However, for additional data collection, I've added two more: **my mood rating after going out** and the **number of locations visited** each day. This is to make the daily differences clearer and serves as a kind of diary for my daily life outside the house.

These efforts are not just beneficial for data collection and analysis; they also give me greater insight into myself and help me understand myself in various aspects, including my spending and my emotions. Beyond this, it might enable me to learn how to organize my time and control my expenses more effectively, which could in turn lead to an improved quality of life.

My Data Collection Experience/almost 1 month : (23 SEP - 21 OCT)

Date	Time go outside start and end each day (hh:mm)	Time Spent Outside (hrs)	Money Spent (CAD)	Purchased Meals (count)	Locations Visited	Daily Spending Reflection (0–5) (Regretful–Satisfied)	Mood When Going outside (0–5) (Enjoyable to Frustrated)
23 SEP 2025	11:40 - 20:40	9 hours	30 CAD	2 meals	2	1	2
24 SEP 2025	11:30 - 19:30	8 hours	42.76 CAD	1 meal	1	1	2
25 SEP 2025	14:30 - 20:30	6 hours	-	-	1	4	3
26 SEP 2025	11:30 - 19:30	8 hours	8.81 CAD	1 meal	1	2	4
27 SEP 2025	12:00 - 19:30	6.3 hours	-	1 meal	2	5	5
28 SEP 2025	Stay home	-	-	-	-	-	-
29 SEP 2025	11:30 - 19:30	8 hours	45 CAD	1 meal	1	3	2
30 SEP 2025	14:30 - 20:30	6 hours	-	1 meal	-	5	5
01 OCT 2025	11:30 - 19:30	8 hours	59.94 CAD	1 meal	1	3	2
02 OCT 2025	14:30 - 20:30	6 hours	70.87 CAD	1 meal	2	2	1
03 OCT 2025	12:30 - 19:30	7 hours	36.53 CAD	1 meal	1	4	3
04 OCT 2025	Stay home	-	-	-	-	-	-
05 OCT 2025	Stay home	-	-	-	-	-	-
06 OCT 2025	10:30 - 18:30	8 hours	121 CAD	1 meal	1	1	1
07 OCT 2025	14:30 - 20:30	6 hours	8 CAD	1 meal	1	3	4
08 OCT 2025	11:30 - 19:30	8 hours	-	1 meal	1	4	4
09 OCT 2025	14:30 - 20:30	6 hours	-	1 meal	-	5	4
10 OCT 2025	12:00 - 19:30	7.3 hours	-	1 meal	1	4	4
11 OCT 2025	18:00 - 21:00	3 hours	104 CAD	2 meals	2	1	3
12 OCT 2025	Stay home	-	-	-	-	-	-
13 OCT 2025	Stay home	-	-	-	-	-	-
14 OCT 2025	14:30 - 20:30	6 hours	200.67 CAD	2 meals	2	0	1
15 OCT 2025	11:30 - 19:30	8 hours	-	1 meal	1	5	4
16 OCT 2025	14:30 - 20:30	6 hours	-	-	1	5	4
17 OCT 2025	11:30 - 19:30	8 hours	15.75 CAD	1 meal	1	3	3

Date	Time go outside start and end each day (hh:mm)	Time Spent Outside (hrs)	Money Spent (CAD)	Purchased Meals (count)	Locations Visited	Daily Spending Reflection (0–5) (Regretful–Satisfied)	Mood When Going outside (0–5) (Enjoyable to Frustrated)
18 OCT 2025	11:30 - 19:30	8 hours	-	1 meal	1	3	5
19 OCT 2025	Stay home	-	-	-	-	-	-
20 OCT 2025	10:30 - 18:30	8 hours	24.08 CAD	1 meal	1	4	4
21 OCT 2025	14:30 - 20:30	6 hours	119.81 CAD	2 meals	2	1	1

My Data collection process

Over the past month, I have been consistently collecting data to explore how my daily time spent outside the house affects my personal spending habits. My hypothesis states that as my daily time spent outside the house increases, the amount of money I spend per day also increases. I also expect that the number of purchased meals will influence the total daily expenses, since eating out usually costs more than cooking at home.

So far, I have collected data for almost 30 days, including both weekdays and weekends. I believe I am on track to have enough data at least three observations per week through the end of the course. I also have a good balance between “active days” (days when I go out) and “stay-at-home days,” which provides clear contrasts for later analysis. Some missing data entries (especially for money spent) occurred when I forgot to record amounts immediately after transactions, but I’ve now started setting daily reminders and cross-checking with my banking app to fill in those gaps more reliably.

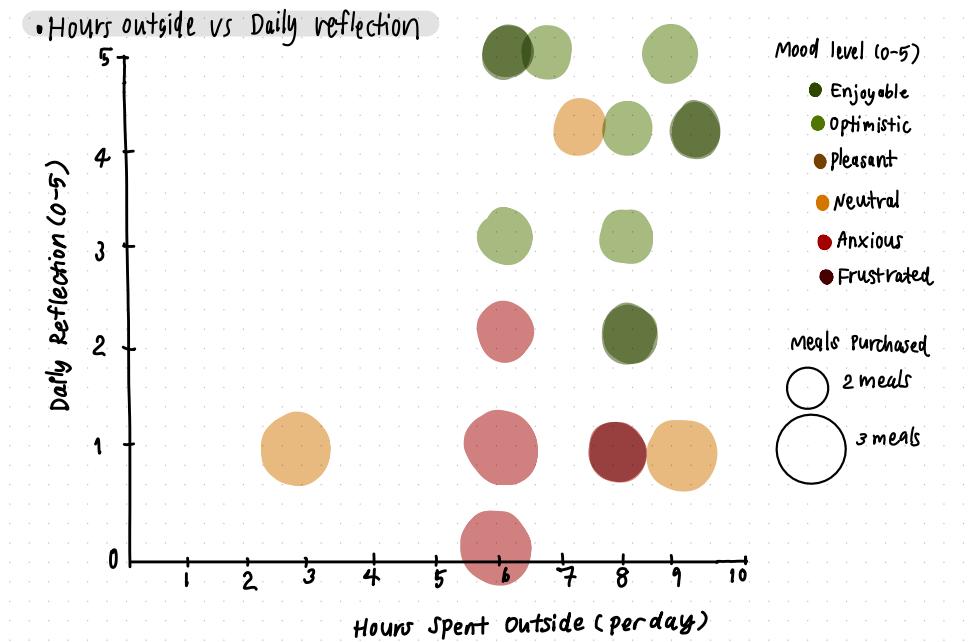
My dataset shows noticeable variation. The hours I spend outside range from 3 to 10 per day, while daily spending fluctuates widely from less than \$10 to over \$200. The number of purchased meals also varies from 0 to 2, which gives me enough range to identify potential patterns. This diversity should make my final visualization more meaningful and prevent the data from appearing too flat or repetitive.

Collecting the data has been relatively easy once I established a routine. I used my iPhone's location tracking and the Life360 app to automatically record time spent outside, which reduces manual effort. However, recording **subjective data** such as my daily reflection and mood has been more challenging because it depends on self-reporting. To simplify this process, I began filling out my reflection at night using my notes app right before bedtime. This habit has helped make the process smoother and more consistent.

After formatting my dataset into a structured table, I noticed how much clearer the relationships between different variables became. Days with longer outdoor hours often correlate with higher spending and more purchased meals. This organization also helped me imagine how I might later structure the data in JavaScript: each day could be represented as an **object** containing properties like **date**, **hours outside**, **money spent**, **meals purchased**, **locations visited**, **spending reflection**, and **mood**.

Overall, this made me realize how valuable structured data is for reflection and analysis. The process not only supports my hypothesis but also improves my self-awareness about how daily activities influence my spending behavior. I expect that continuing this method throughout the course will lead to even more consistent data and deeper insights.

Sketch : Scatterplot



The longer of the hours spent outside increase, my daily reflection also increase.

Advantages:

- The scatterplot format is easy to understand and allows readers to interpret the data without complexity.

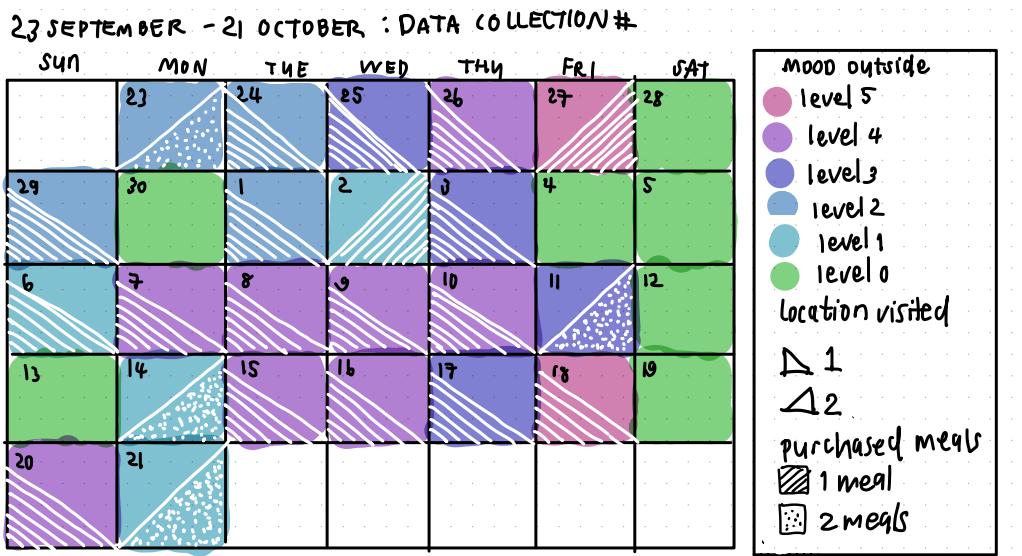
Disadvantages:

- This type of visualization is very common and does not stand out or capture attention. Some data points may overlap because all points are represented as circles.

Reason for not choosing it:

- I wanted to explore a more challenging and distinctive visualization style something different from typical visualizations.

Sketch : Calendar data collection



As the number of locations visited decreases, the number of purchased meals also decreases, while the mood outside tends to increase.

► inspired by Dear Data and Five Thirty Eight Best and Weirdest

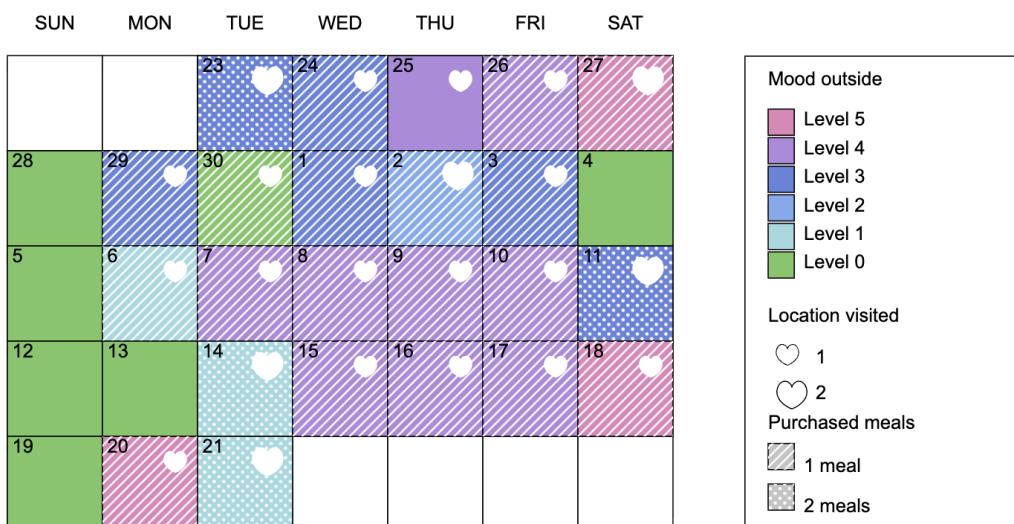
* combine abstract graphic with calendar *

Relationship Between Purchased meals / Location visited / Mood outside

Pattamaporn Jamjumrus

Hypothesis: As the number of location visited decreases, the number of purchased meals also decreases, while the mood outside tends to increase.

23 September – 21 October : Data Collection



Hypothesis: As the number of locations visited decreases, the number of purchased meals also decreases while mood outside tends to increase.

Data used: Locations Visited, Meals Purchased, Mood Outside

Representation: Creative visual with no axes, using colors and patterns to show relational change.

Rationale for visualization

I chose this design because it resembles a recording style that I regularly use in my daily life, which also aligns well with my hypothesis centered around tracking everyday activities. I discovered this design approach through the *Dear Data* project and *FiveThirtyEight's Best and Weirdest Charts (2021)* featured in our class materials. My initial impression was that it looked similar to a simple calendar log, but I adapted the inspiration to better match my personal preferences by blending graphic elements with a calendar-style layout. I also separated the legend, similar to conventional visualizations, to make the information easier to interpret.

I experimented by drawing different patterns for each day based on the data collected. I first used pastel colors to represent outdoor mood levels because I wanted the tones to feel soft and emotional. However, when I introduced white patterns, the design became visually overwhelming. As a result, I adjusted to darker colors in the final visualization.

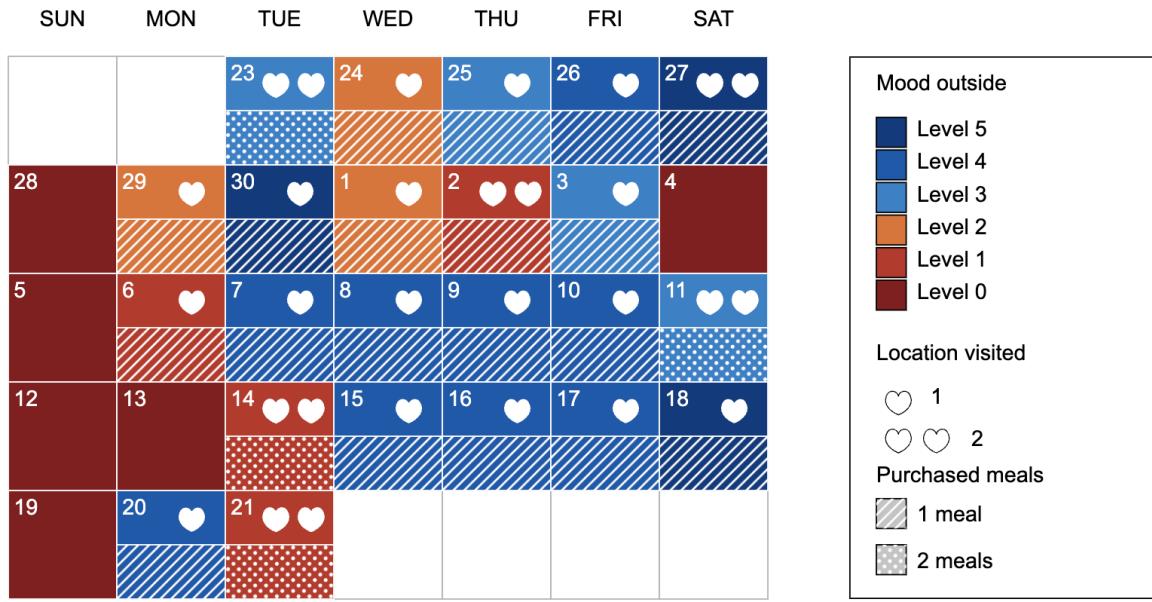
There are also slight differences between my initial sketches and the coded version due to technical limitations in applying patterns. I refined the design by filling each calendar cell completely and replacing triangles with heart shapes to represent locations visited. After implementing these changes, I found that the design became more unique, engaging, and creatively challenging. This discovery ultimately reinforced my decision to choose this visualization style.

Relationship Between Purchased Meals / Locations Visited / Mood Outside

Pattamaporn Jamjumrus

Hypothesis: As the number of locations visited decreases, the number of purchased meals also decreases, while the mood outside tends to increase.

23 September – 21 October : Data Collection



Design Details: This visualization is based on a daily recording format similar to a paper planner or digital calendar. Using a calendar-like layout makes it easier to record data consistently and to see day-to-day changes at a glance. It also matches how people usually think about their routines, which helps when explaining the results.

In addition, I refined the color palette to make the visualization easier to read. Instead of the original six colors, I simplified it into three main tones blue, orange, and red representing a progression from cool to warm moods. These colors correspond to different mood levels recorded each day. I also adjusted the heart markers from a single heart with varying sizes to two hearts to make the representation easier to understand.

Self Analysis

I originally developed four different hypothesis, all based on the same dataset collected earlier. For each visualization format, I selected only three variables at a time, which resulted in variations in the hypothesis.

However, the outcomes across these different approaches were generally consistent with one another. The **four hypothesis** I explored were as follows:

1. As my daily time spent outside the house increases, the amount of money I spend per day increases. One other factor that could impact the amount of money I spend per day is the number of meals I buy instead of cooking.
2. As my daily time spent outside the house increases, the amount of money I spend per day increases.
3. The longer the hours I spend outside, the higher my daily reflection score tends to be.
4. As the number of locations visited decreases, the number of purchased meals also decreases while mood outside tends to increase.

(FINAL HYPOTHESIS)

Self Analysis

Through working with my collected data, I discovered many new and challenging perspectives about myself and my daily habits. This project encouraged me to observe my own behaviors more closely and helped me realize that while we cannot always control external factors around us, we can control our choices and decisions.

For example, some days I decide to go out even when it isn't necessary simply to walk around or enjoy the day and this sometimes leads to small purchases that bring me happiness, which can greatly improve my mood. On the other hand, staying home all day may make my mood feel stagnant or even dull. These experiences made me realize that each day is always open to change, depending on how we choose to live it.

Normally, I enjoy planning my monthly schedule using a calendar, but I had never recorded my emotions or personal feelings before. This assignment allowed me to see a new and unexpected perspective: if we were to track our mood every day, month, or even year, the emotional "color palette" of our lives might look completely different over time.

Because of this, I am inspired to continue using this idea in the future as a personal habit both for reflection and for understanding myself more deeply.

Conclusion

The overall findings from recording and visualizing the data support the hypothesis. In particular, the final calendar-style visualization clearly highlights the patterns and relationships observed throughout the project. The visualization of the calendar data shows a general consistency with the original hypothesis. When more time is spent outside visiting multiple locations and spending more money on meals, there tends to be a noticeable drop in the mood level for that day. In other words, heavier spending and more movement outside generally line up with lower mood ratings.

However, the visualization focuses on only three variables. Some days look “off” because other factors, such as total time outside, overall fatigue, non-food expenses, or personal context, are not included in the dataset but still influence mood.

Overall, the displayed trends match the hypothesis and reflect the patterns that appear when looking across the entire month of recorded data. Additionally, while the calendar format effectively reflects the main hypothesis, a more detailed understanding can be gained by examining the daily records that were not directly included as variables in the visualization such as daily spending and the number of hours spent outside the home. These two factors also play an important role in shaping the conditions and outcomes shown in the visualization and provide further context for interpreting the data as well.

Citations

“Dear Data” Project (<http://www.dear-data.com/theproject>)

FiveThirtyEight Best and Weirdest Charts (2021)

<https://fivethirtyeight.com/features/our-51-best-and-weirdest-charts-of-2021/>