## PLAN OF ACTION

- Download the data
- Choose what area to study (**customers**)
- Go through and study the data
- · Clean data! (more than likely using PowerBI and use PowerQuery to transform)
  - Account for null and error values in all tables, especially find and replace
  - Remove unnecessary columns
    - Users: gender (unusable in my mind, not important to the analysis anyway), username, password, email
    - Orders: currency
    - Restaurants: Link, cost, address, menu

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- After cleaning the data
  - Do you need/should you join any tables
    - If I'm going to be studying consumer behavior, I'll obviously want users as my primary study
    - Other useful tables/columns
      - Orders: order date, (PK) user id, (SK) r id
        - Primarily for the sake of seeing repeat orders and the like loyalty
      - Restaurant: (SK) id (is r\_id elsewhere), city, rating, cuisine, name
        - Again, add info to the above. See which cities have the most restaurants to users, where the most traffic goes, and also the most popular cuisines
    - Would be good to join users to orders and orders to restaurant
      - User to orders is going to be a one to many (users to orders) orders to restaurants will be many to one (orders to restaurants)
  - Customer segments available
    - Gender unusable, fully jumbled up
    - Age
    - Marital status
    - Occupation
    - Income level
    - Education level
    - Family size
    - All
  - Customer habits to explore
    - Days of week with the most orders (per rest, city, and customer segment)
    - Repeat orders at the same restaurants
    - Family size vs order day of week
    - Income level vs time of month

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- What am I going to study?
  - What questions would I have as a business owner looking to learn about their customers?

- Which days of the week do we get the most orders?
- What days of the week get most profit?
- What is the employment status of our most frequent customers?
- What is the marital status of our top 10%, 20% customers?
- Are there any times of year where the customers order more than others? Quarterly? Monthly?
- Are customers more inclined to order from higher-rated restaurants?
- How many customers are repeat customers? (more than once, and more than 2x)
- Average order volume per day/week/month per restaurant with
  - NOT *Too Few Ratings*
  - HAS lic\_no (license number)
- What're
- O What is my goal for the project?
  - I want to figure out what kinds of promotions we can offer different customer segments
  - Hypotheses
    - People tend to order most often Thursday Sunday, primarily Friday and Saturday and creating a weekend-based advertisement campaign could increase overall sales.
    - Larger families order out less due to cost, so providing discounts for large orders could increase the probability of larger orders if it saves them some more money.
    - When a loyalty plan or properly-planned promotional camapaigns (such as holiday based discounts)
- How will I achieve this goal?
  - I am leaning towards PowerBI however I am not sure yet, my Code Pudding project could lead me to like Tableau more as we will be using Tableau

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- How will I present this goal?
  - I'll be presenting multiple dashobards with basic graphs such as bar/stacked bar, maps,
    KPI cards, tables, scatterplots, line graphs, and text.
  - o I will also be attaching a report of my findings in a PDF format