Now I have three different data dummy data sets:

1. Menu:

menu\_df = pd.read\_csv('menu\_analysis.csv')

menu\_df

Item\_Num Ingredient Price Cost Points Earn Points Redeem

0 Item\_1 Chicken 6.5 2.00 65.0 400.0

1 Item\_2 Beef 8.0 2.50 80.0 500.0

2 Item\_3 Shrimp 7.5 3.00 75.0 600.0

3 Item\_4 Tofu 5.5 1.00 55.0 200.0

4 Item\_5 Chickpeas 4.5 0.50 45.0 100.0

5 Item\_6 Pumpkin 5.0 0.75 50.0 150.0

6 Item\_7 Eggplant 5.0 0.75 50.0 150.0

7 Item\_8 Lentils 4.5 0.50 45.0 100.0

8 Item\_35 Soft Drink - XL 3.5 0.35 35.0 70.0

9 Item\_36 Soft Drink - L 3.0 0.30 30.0 60.0

10 Item\_37 Soft Drink - M 2.5 0.25 25.0 50.0

11 Item\_38 Soft Drink - S 2.0 0.20 20.0 40.02.

2. Customers:  
 customers\_df = pd.read\_csv('customers.csv')

customers\_df.head()

Customer\_ID First\_Name Last\_Name Email Phone DOB Gender Location Member\_Since Newsletter\_Subscription Feedback\_Provided Communication\_Preferences Data\_Sharing\_Consent

0 CUST0000 Justin Johnson grosscody@example.org 3039046053 2001-10-31 Female USNS Hughes, FPO AA 14136 2019-06-05 True False NaN True

1 CUST0001 Curtis Middleton chelseacurtis@example.org +1-297-998-3158x79790 1983-03-21 Female 12798 Davis Parkway, Cynthiamouth, RI 69254 2019-11-15 False True NaN True

2 CUST0002 Michelle Gregory alexis99@example.net +1-641-692-1569 1978-04-13 Prefer not to say 20628 David Wells Apt. 448, Aliciachester, MI ... 2021-08-04 True True SMS True

3 CUST0003 Michael Hansen morenokathleen@example.net 001-223-399-1153x4031 1996-12-15 Female 34297 Martin Ways, North Alicia, VA 09589 2021-07-19 True True Email True

4 CUST0004 Karen Williams donnawilkerson@example.net (384)200-2721x0158 1980-09-15 Prefer not to say 8316 Jacobs Mall, New Brianborough, OR 88157 2023-05-21 True False Email True

3. Stores:

stores\_df = pd.read\_csv('stores.csv')

Store\_Name Store\_Number Address City State Zip

0 Store\_1 0 0987 Campbell Pass Suite 712 Woodbury MN 86944

1 Store\_2 1 7984 Cassandra Row Rochester MN 23465

2 Store\_3 2 19450 Williams Ridge Apt. 333 Minneapolis MN 56832

3 Store\_4 3 1488 William Street Bloomington MN 10718

4 Store\_5 4 022 Felicia Stravenue Apt. 103 Minneapolis MN 7999

Now, I want to create a series of dummy transactions. I need to create code that performs this task. The code should take in the existing dataframes above as input. The new dummy transaction table should include the following fields and any others that would be of value.

Fields to include.

1. Order\_number
2. Transaction\_date
3. Transaction\_time
4. Store\_number
5. Customer\_number
6. Item\_number

If a customer owns more than one item, there will be multiple lines per transaction. The transactions should have some variability to them. Customers buying a meal for themselves and also occasionally buy meals for multiple people

Now menu\_df has been rewritten as

menu\_df:

Group Item\_Num Ingredient Price Cost Points Earn Points Redeem

Primary Item\_1 Chicken 6.5 2 65 400

Primary Item\_2 Beef 8 2.5 80 500

Primary Item\_3 Shrimp 7.5 3 75 600

Primary Item\_4 Tofu 5.5 1 55 200

Primary Item\_5 Chickpeas 4.5 0.5 45 100

Primary Item\_6 Pumpkin 5 0.75 50 150

Primary Item\_7 Eggplant 5 0.75 50 150

Primary Item\_8 Lentils 4.5 0.5 45 100

Beverage Item\_35 Soft Drink - XL 3.5 0.35 35 70

Beverage Item\_36 Soft Drink - L 3 0.3 30 60

Beverage Item\_37 Soft Drink - M 2.5 0.25 25 50

Beverage Item\_38 Soft Drink - S 2 0.2 20 40

The code should rewritten to allow for a variable(s) declaring the percentage that each ‘Group’ of menu items is order.

1. “Beverage” only orders should be 1%, this is where just orders a refreshment to join another customer or get some liquids to go
2. “Primary” these are single customer order where one customer will order one ‘Primary’ bowl but no beverage, and just get a free water. This should be 10% of the time.
3. Next is where a customer orders a ‘Primary’ meal and ‘Beverage’ for themselves. That should be 55% of the time.
4. Next we’ll have a customer buy a meal for themselves and a few other patrons. The meals the patrons wil buy will be ‘Primary’ meals with and without ‘Beverage’s. I need code that weights 2 meals bought to be the most likely, with sigficantly decreasing probability of more meals bought up to 12. This will be for patrons buying meals for friends, family or colleagues. This should be 25% of transactions
5. Next will be to go orders of single or multiple orders, they will not include ‘Beverage’. Same step up as #4 but the base will be one ‘Primary’ order rather than 2., this will be the remaining possible trans actions: 100% - 1% - 10% -65% -25%