Part 4: Database
Presentation

PLATE MATE

HEALTHY
FOOD

BMS0601
Firas Zaghab
Elizabeth Gomes
Zixuan Wu
Percival Masaline
Channele Sawyer

Healthy Meal Plan Delivery Service

Welcome To Plate Mate

Our Story

At Plate Mate, we believe that everyone should have access to healthy, delicious meals that fit their busy lifestyle. We source only the highest-quality ingredients, using local and organic products whenever possible, and prepare each meal with care and attention to detail. We are committed to providing personalized service and creating a seamless delivery experience for our customers, so they can focus on what matters most - enjoying great food and living their best life.

77%

Learn More

Plate Mate

Our Mission

Our Mission is to create a relational database system for Plate Mate to store transactional and operational data related to orders and deliveries, customer accounts, subscriptions accounts, subscription plans, supplier information such as vendors, products, meals, orders and delivery information all in one place.
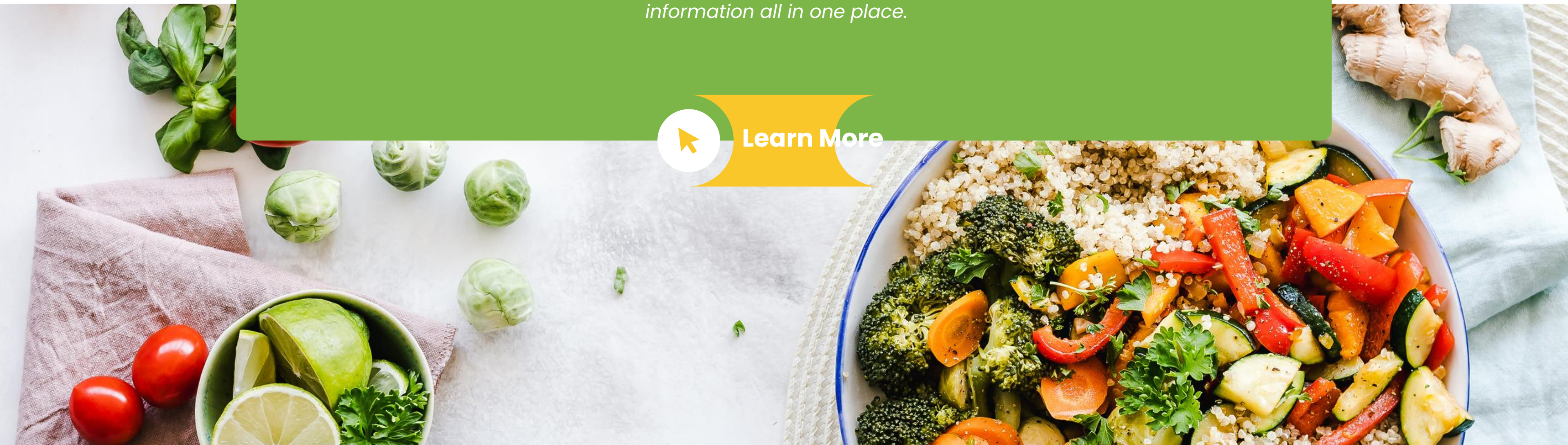
Learn More

Plate Mate

Plate Mate

Mission Objectives

01 The database will store data for individual customers such as customer accounts, past orders, subscription accounts, contact information.

02 The database will store data for individual subscriber accounts such as subscriber identification, subscription plant types, cost and date of enrollment in each plan.

03 The database will store information pertaining to subscription plan types such as cost of weekly, bi-weekly and monthly subscription types.

04 The system will track all order transactions and maintain data related to each order such as order numbers, order items, order dates, and delivery information.

100%
Natural

Plate Mate

Mission Objectives

05 The system will track delivery data such as driver information, delivery date, meals delivered, and customer account associated with delivery.

06 The database will store meal information such as vegan ,vegetarian, and gluten free meal types, as well as products used in the meals.

07 The database will store vendor contact information and track products supplied by each vendor.

08 The database will store products such as product name, price and supplier.

100%
Natural

Plate Mate

Business Rules

R1 A customer can have multiple subscriptions. A subscription must belong to one customer

R2 There are three subscription types available for a customer to choose from - Weekly, Bi-Weekly, and Monthly.

R3 An order can only belong to one customer. A customer can place many orders.

R4 A placed order can consist of several meals (up to 4 meals). A meal can be included in any order.
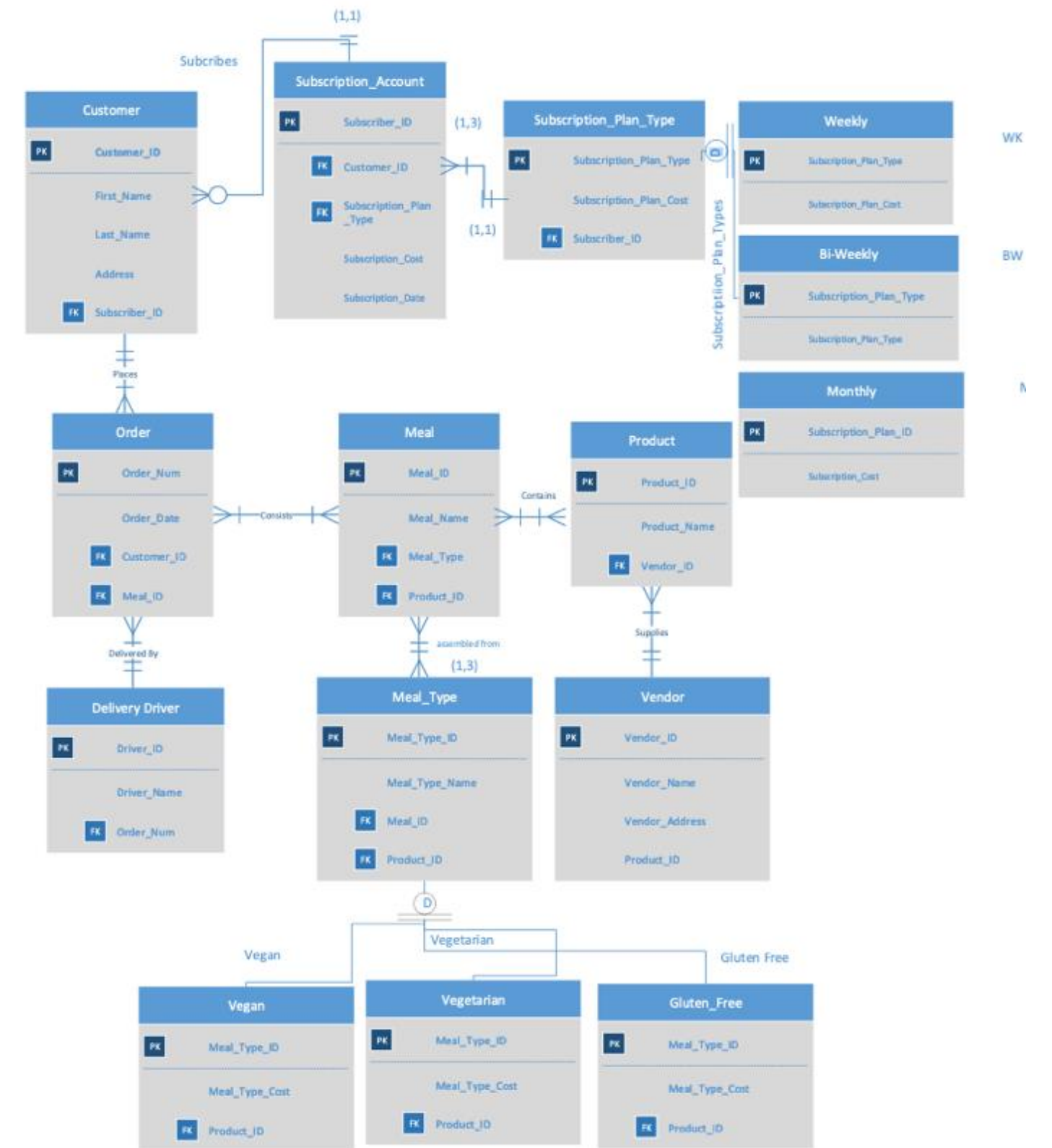
Plate Mate

Plate Mate

Business Rules

R5 There are 3 Meal Types for customers to choose from, Vegan, Vegetarian and Gluten Free. An individual meal cannot be classified as multiple types.

R6 A meal must contain at least one product and usually contains various products. A product can be used in various meals.

R7 A product must be supplied by one vendor. A vendor can supply multiple products.

R8 A delivery driver can deliver many orders. An order can only be delivered by one driver.

ER Diagram

Queries

01 LA customer can have multiple subscriptions. A subscription must belong to one customer. SELECT G4_SUBSCRIPTION_ACCOUNT.SUBSCIPTION_PLAN_TYPE, G4_SUBSCRIPTION_ACCOUNT.SUBSCRIPTION_DATE, G4_SUBSCRIPTION_ACCOUNT.FIRST_NAME, G4_SUBSCRIPTION_ACCOUNT.LAST_NAME,G4_SUBSCRIPTION_ACCOUNT.SUBSCRIPTION_DATE,G4_SUBSCRIPTION_ACCOUNT.SUBSCRIPTION_COST,G4_CUSTOMER.CUSTOMER_ID FROM G4_SUBSCRIPTION_ACCOUNT INNER JOIN G4_CUSTOMER ON G4_SUBSCRIPTION_ACCOUNT.CUSTOMER_ID = G4_CUSTOMER.CUSTOMER_ID WHERE G4_SUBSCRIPTION_ACCOUNT.CUSTOMER_ID > '1' AND SUBSCRIPTION_DATE BETWEEN '2022-10-10' AND '2023-01-10' ORDER BY CUSTOMER_ID;

SUBSCRIBER_ID	SUBSCRIPTION_PLAN_TYPE	SUBSCRIPTION_COST	SUBSCRIPTION_DATE	FIRST_NAME	LAST_NAME	CUSTOMER_ID
S001	Monthly	180.00	2022-10-10	John	Smith	C001
S016	Weekly	50.00	2023-06-30	John	Smith	C001
S011	Weekly	50.00	2023-03-30	Ellen	Zhang	C002
S012	Bi-Weekly	100.00	2023-03-30	Ellen	Zhang	C002

02 An order can belong to one customer. A customer can have many orders. SELECT G4_ORDER.ORDER_ID,G4_ORDER.ORDER_DATE,G4_0RDER.MEAL_ID,G4_CUSTOMER.CUSTOMER_ID,G4_CUSTOMER.FIRST_NAME,G4_CUSTOMER_LAST_NAME FROM G4_CUSTOMER INNER JOIN G4_ORDER ON G4_CUSTOMER.CUSTOMER_ID=G4_ORDER,CUSTOMER_ID WHERE G4_CUSTOMER.ORDER_ID >' 1' AND FIRST_NAME LIKE '%KELLY'%

	ORDER_ID	ORDER_DATE	MEAL_ID	CUSTOMER_ID	FIRST_NAME	LAST_NAME
1	6	2023-03-05	GF401	C005	Kelly	Greene
2	18	2023-01-11	VG402	C005	Kelly	Greene
3	21	2023-04-02	VEG401	C005	Kelly	Greene

100% Natural

Queries

03

THERE ARE 3 MEAL TYPES TO CHOOSE FROM VEGAN,VEGETARIAN, AND GLUTON-FREE. AN INDIVIDUAL MEAL CANNOT BE CLASSIFIED AS MULTIPLE TYPES.

CREATE VIEW [MEAL TYPES] AS
SELECT G4_MEAL .MEAL_NAME,G4_MEAL.MEAL_TYPE FROM G4_MEAL
WHERE MEAL_TYPE >'2'; SELECT * FROM[MEAL TYPES];

MEAL_ID	MEAL_TYPE	MEAL_NAME
VEG401	VEGATARIAN	PINEAPPLE FRIED RICE
VEG406	VEGATARIAN	CAULIFLOWER PARMESIAN
GF409	GLUTON FREE	CAULIFLOWER FRIED RICE

04

A DELIVERY DRIVER CAN ONLY DELIVER MANY ORDERS,AN ORDER CAN ONLY BE DELIVERED BY ONE DRIVER. SELECT G4_ORDER.DRIVER_ID, COUNT(*)AS 'DRIVER ORDER' FROM G4_ORDER GROUP BY G4_ORDER.DRIVER_ID HAVING COUNT (*) >=1; ,

	DRIVER_ID	DRIVER ORDER
1	D001	2
2	D002	5
3	D003	6
4	D004	3

100%
Natural

Queries

Subscription Cost by Customers and Sub Types

```sql
SELECT
    C.customer_id,
    C.customer_fname,
    C.customer_lname,
    S.subscription_id,
    S.subscription_type,
    S.subscription_date,
    S.subscription_cost
FROM G4_CUSTOMER AS C INNER JOIN G4_SUBSCRIPTION AS S
ON C.customer_id = S.customer_id
WHERE S.subscription_cost = 180
AND S.subscription_date BETWEEN '2022-10-01' AND '2022-12-31';
/* Group 4 04-09-2023 */
```

	customer_id	customer_fname	customer_lname	subscription_id	subscription_type	subscription_date	subscription_cost
1	C001	John	Smith	S001	Monthly	2022-10-10	180.00
2	C006	Mario	Gimelli	S005	Monthly	2022-11-30	180.00
3	C007	Kevin	Brown	S007	Monthly	2022-11-30	180.00
4	C008	Stephanie	Emmerson	S008	Monthly	2022-12-30	180.00

Driver Delivery Status

```sql
SELECT
    O.driver_id,
    COUNT(O.order_id) AS delivery_time
FROM G4_ORDER AS O
WHERE O.subscription_id IS NOT NULL
GROUP BY O.driver_id
HAVING COUNT(O.order_id)>1;
/* Group 4 04-09-2023 */
```

	driver_id	delivery_times
1	D003	3
2	D004	2

Meal Cost per Customer

```sql
SELECT
    OC.order_id,
    OC.customer_fname,
    OC.customer_lname,
    M.meal_name,
    M.meal_type,
    M.meal_cost
FROM G4_MEAL AS M INNER JOIN (
    SELECT
        O.order_id,
        O.customer_id,
        O.meal_id,
        C.customer_fname,
        C.customer_lname
    FROM G4_ORDER AS O INNER JOIN G4_CUSTOMER AS C
    ON O.customer_id = C.customer_id
    ) AS OC ON OC.meal_id = M.meal_id
WHERE M.meal_cost > 15
AND M.meal_type LIKE '%Veg%';
/* Group 4 04-09-2023 */
```

	order_id	customer_fname	customer_lname	meal_name	meal_type	meal_cost
1	O003	Jennifer	Rodriguez	Creamy Goat Cheese Polenta With Ratatouille	Vegetarian	19.88
2	O004	John	Smith	Brown Butter Sage Gnocchi	Vegetarian	17.56
3	O006	Giselle	Noa	Creamy Goat Cheese Polenta With Ratatouille	Vegetarian	19.88
4	O010	Jennifer	Rodriguez	Brown Butter Sage Gnocchi	Vegetarian	17.56

Product Needed for Each Meal

```sql
SELECT
    M.meal_id, M.meal_name,
    new.product_needed
FROM (
    SELECT
        M.meal_id,
        COUNT(M.meal_id) AS product_needed
    FROM (
        SELECT
            R.meal_id,
            PR.product_id, PR.product_name, PR.product_count, PR.product_price
        FROM G4_RECIPE AS R RIGHT JOIN (
            SELECT * FROM G4_PRODUCT AS P
            WHERE P.product_count < 20
            ) AS PR ON PR.product_id = R.product_id
        ) AS PM RIGHT JOIN G4_MEAL AS M
        ON PM.meal_id = M.meal_id
    GROUP BY M.meal_id
    HAVING COUNT(M.meal_id)>1
    ) AS new INNER JOIN G4_MEAL AS M
    ON new.meal_id = M.meal_id
ORDER BY product_needed DESC;
/* Group 4 04-09-2023 */
```

	meal_id	meal_name	product_needed
1	M004	Creamy Goat Cheese Polenta With Ratatouille	3
2	M003	Brown Butter Sage Gnocchi	2

Plate Mate

Subscription Plan Types

Weekly

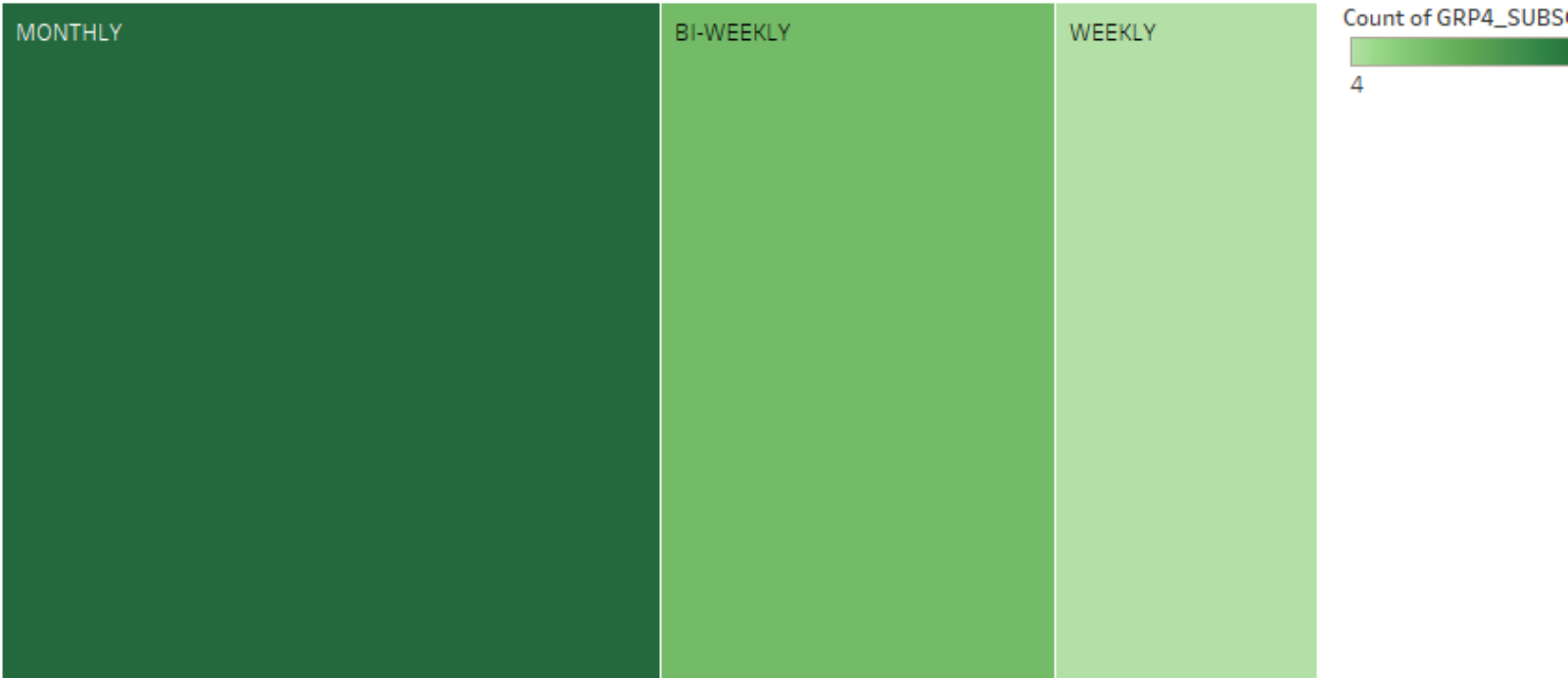## $ 50.00

Bi-weekly

$ 100.00

Monthly

$ 180.00

Tableau Visualization of most popular Subscription Plan Type by Subscription Account or number of subscribers. The data indicates that the Monthly subscription is Plate Mates most popular plan.

Most popular Subscription Plan Type by Subsription Accounts

MONTHLY	BI-WEEKLY	WEEKLY

Count of GRP4_SUBS(

4

Plate Mate

Plate Mate

Plate Mate

Tableau Visualization for Number of Orders delivered per Driver in a specified time frame. The data indicates that driver 'D003; delivered the most orders during this period.
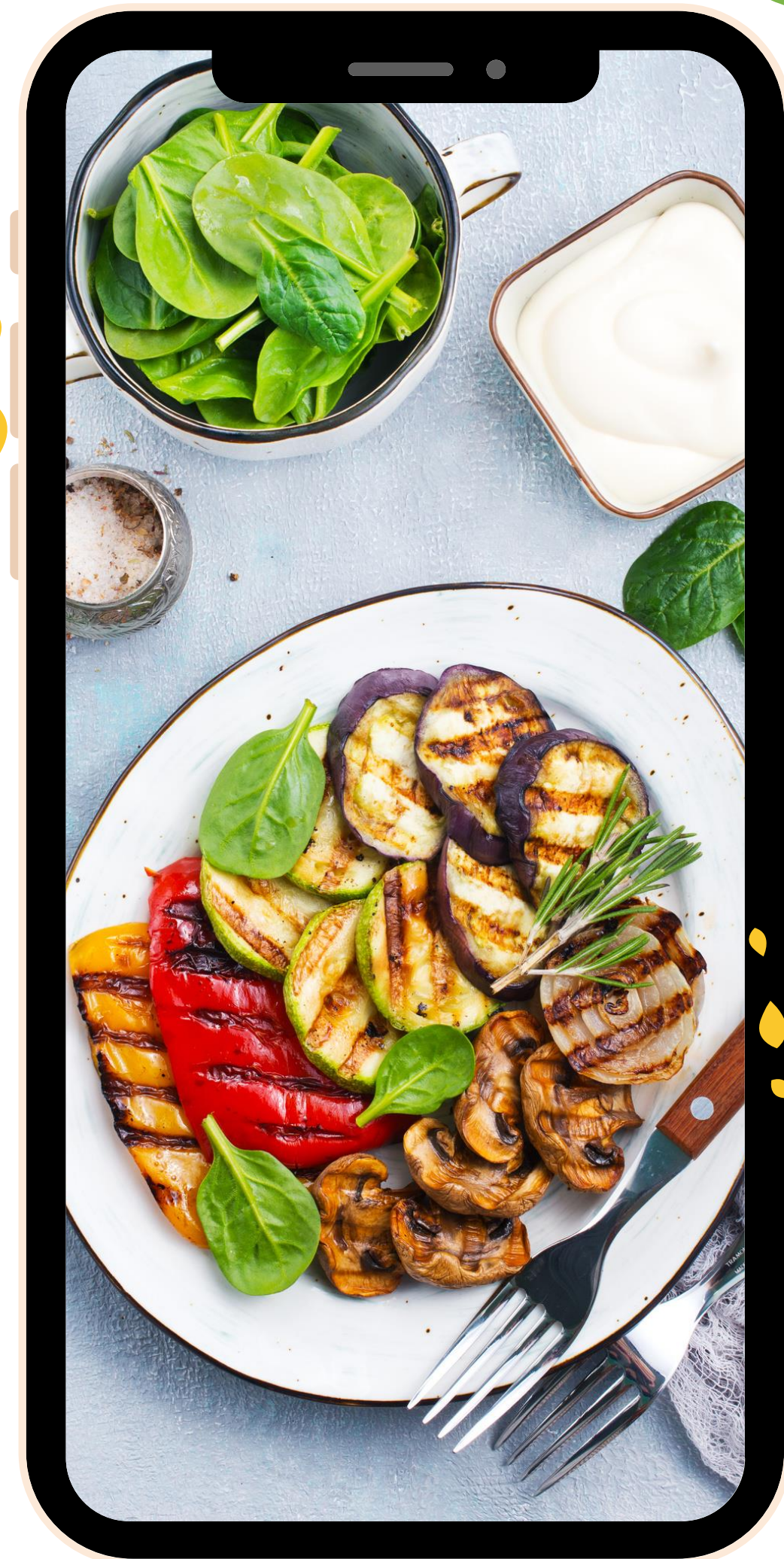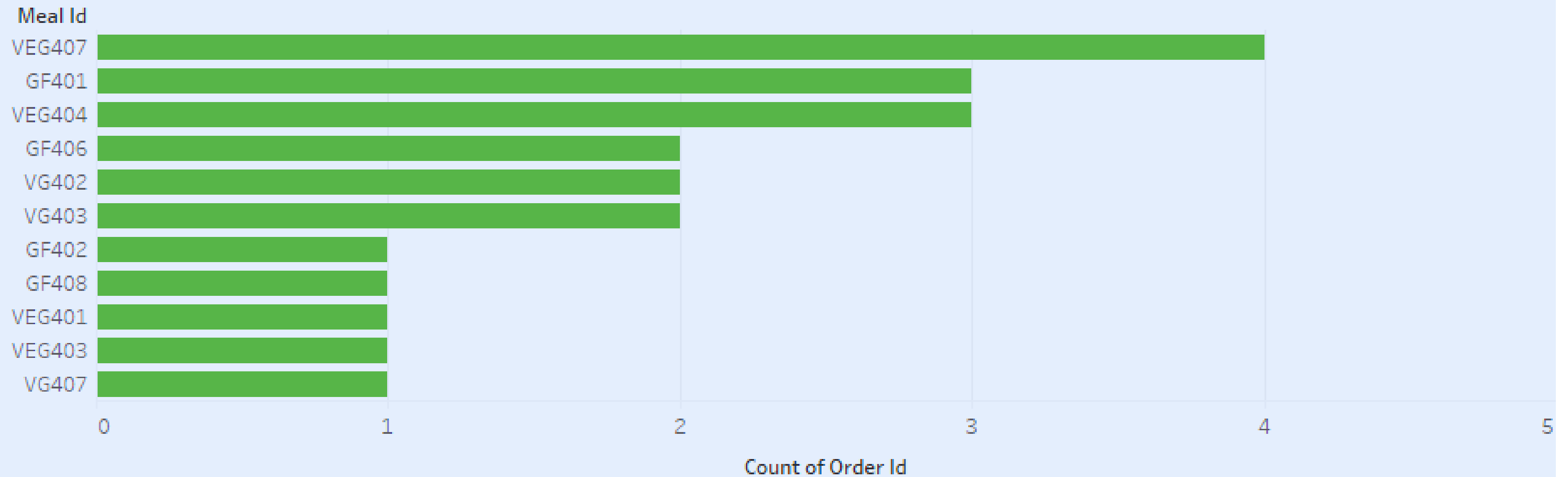
Plate Mate

Tableau Visualization for Number of Orders delivered per Meal in specified in a specified time frame to determine most popular meals. The data indicates that VEG407 OR VEGETARIAN PUMPKIN CURRY was the most ordered meal during this period.

Amount of Orders by Meal

Meal Id	Count of Order Id
VEG407	4
GF401	3
VEG404	3
GF406	2
VG402	2
VG403	2
GF402	1
GF408	1
VEG401	1
VEG403	1
VG407	1

| | | Vendor Name | | |
Product Name	Meal Name	Giants Garden	Soy Bros	Tiny Farms
Black Beans	Tempeh Burrito Bowl		2.290	
Brown Rice	Tempeh Burrito Bowl	2.700		
Butter	Brown Butter Sage Gnocchi			3.000
Carrots	Gluten-free Chicken Stir-Fry	1.500		
Chicken Breast	Gluten-free Chicken Stir-Fry			3.500
Eggplant	Creamy Goat Cheese Polenta With R..	2.290		
Gnocchi	Brown Butter Sage Gnocchi			5.170
Goat Cheese	Creamy Goat Cheese Polenta With R..			3.290
Green Peas	Gluten-free Chicken Stir-Fry	1.180		
Polenta	Creamy Goat Cheese Polenta With R..			2.790
Quinoa	Tofu Quinoa Salad			5.750
Sage	Brown Butter Sage Gnocchi	2.190		
Tempeh	Tempeh Burrito Bowl		4.190	
Tofu	Tofu Quinoa Salad		5.500	
Tomatoes	Creamy Goat Cheese Polenta With R..	1.100		
Yellow Squash	Creamy Goat Cheese Polenta With R..	1.800		
Zucchinis	Creamy Goat Cheese Polenta With R..	1.400		

Sum of Product Price broken down by Vendor Name vs. Product Name and Meal Name.

Dashboard

OrderCost by Cx&Meal-Name(MealCount)

Customer F..	Customer L..		
Ellen	Zhang		14.210
Giselle	Noa		19.880
Jennifer	Rodriguez	19.880	17.560
John	Smith	15.740	17.560
Kelly	Greene		13.150
Kevin	Brown		14.210

Distinct count of Meal Name

OrderDelivery by Driver

Driver Fna..	Driver Lna..	
Aaron	Gomes	
Jayden	Mill	
Julio	Taylor	
Martin	Li	
Nick	Kim	
Philip	Curtis	
Richard	Lee	

Distinct count of Order ..

SubscriptionCost by Cx&SubType

		Subscription Type	
Customer Fname	Customer Lname	Bi-Weekly	Monthly
Ellen	Zhang	100.0	
Giselle	Noa	100.0	
Jennifer	Rodriguez		
John	Smith		18
Kevin	Brown		18
Mario	Gimelli		18
Mike	Johns		
Stephanie	Emmerson		18

Meal Name
- Brown Butter S
- Creamy Goat Che
- Gluten-free Chicke
- Tempeh Burrito Bow
- Tofu Quinoa Salad

Orders by Cx OrderDate&MealType

			Meal Type	
ar of der Date	Quarter of Order Date	Month of Order Date	n	Vegetarian
Ellen	Zhang	2022		
Giselle	Noa	2022		
Jennifer	Rodriguez	2022		
		2023		
John	Smith	2022		
Kelly	Greene	2022		

ProductPrice by Products&Vendors for each Meal

		Vendor Name	
Product Na..	Meal Name	Giants Garden	Soy Bros
Black Beans	Tempeh Burrito Bowl		
Brown Rice	Tempeh Burrito Bowl	2.700	
Butter	Brown Butter Sage Gnocchi		
Carrots	Gluten-free Chicken Stir-Fry	1.500	
Chicken Bre..	Gluten-free Chicken Stir-Fry		
Eggplant	Creamy Goat Cheese Polenta With R..	2.290	
Gnocchi	Brown Butter Sage Gnocchi		
Goat Cheese	Creamy Goat Cheese Polenta With R..		
Green Peas	Gluten-free Chicken Stir-Fry	1.180	
Polenta	Creamy Goat Cheese Polenta With R..		
Quinoa	Tofu Quinoa Salad		
Sage	Brown Butter Sage Gnocchi	2.190	

PLATE MATE

THANK'S

FOR WATCHING

WE PLEDGE ON OUR HONOR THAT WE HAVE NOT GIVEN OR RECEIVED ANY UNAUTHORIZED ASSISTANCEON THIS ASSIGNMENT