CREATE TABLE

```
CREATE TABLE Zepto(

sku_id SERIAL PRIMARY KEY,

category VARCHAR(120),

name VARCHAR(150) NOT NULL,

mrp NUMERIC(8,2),

discountPercent numeric(5,2),

availableQuantity INTEGER,

discountedSellingPrice NUMERIC(8,2),

weightInGms INTEGER,

outOfStock BOOLEAN,

quantity INTEGER

);
```

DATA EXPLORATION

COUNT OF ROWS

```
SELECT COUNT(*) FROM Zepto;
```


SAMPLE DATA

```
SELECT* FROM Zepto

LIMIT 10;
```

id integer	category character varying (120)	name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)	availablequantity integer	discountedsellingprice numeric (8,2)	weightinngms integer	outofstock boolean	quantity integer
1	1	Fruits & Vegetables	Onion	2500.00	16.00	3	2100.00	1000	false	1
2	2	Fruits & Vegetables	Tomato Hybrid	4200.00	16.00	3	3500.00	1000	false	1
3	3	Fruits & Vegetables	Tender Coconut	5100.00	15.00	3	4300.00	58	false	1
4	4	Fruits & Vegetables	Coriander Leaves	2000.00	15.00	3	1700.00	100	false	100
5	5	Fruits & Vegetables	Ladies Finger	1400.00	14.00	3	1200.00	250	false	250
6	6	Fruits & Vegetables	Potato	3500.00	17.00	3	2900.00	1000	false	1
7	7	Fruits & Vegetables	Lemon	7500.00	16.00	3	6300.00	200	false	200
8	8	Fruits & Vegetables	Watermelon	5800.00	15.00	3	4900.00	58	false	1
9	9	Fruits & Vegetables	Capsicum Green	2300.00	17.00	3	1900.00	250	false	250
10	10	Fruits & Vegetables	Chilli Green	1900.00	15.00	3	1600.00	100	false	100

NULL VALUES

SELECT * FROM Zepto

WHERE name IS NULL

OR

category IS NULL

OR

mrp IS NULL

OR

discountPercent IS NULL

OR

discountedSellingPrice IS NULL

OR

weightIngms IS NULL

OR

availableQuantity IS NULL

OR

outOfStock IS NULL

OR

quantity IS NULL;

sku_id [PK] integer	category character varying (120)	name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)	availablequantity integer	discountedsellingprice numeric (8,2)	weightingms integer	outofstock boolean	quantity integer

DIFFERENT PRODUCT CATEGORY

SELECT DISTINCT category

FROM Zepto

ORDER BY category;

Data Output   Messages   Notifications

	category character varying (120) 🔒
1	Beverages
2	Biscuits
3	Chocolates & Candies
4	Cooking Essentials
5	Dairy, Bread & Batter
6	Fruits & Vegetables
7	Health & Hygiene
8	Home & Cleaning
9	Ice Cream & Desserts
10	Meats, Fish & Eggs
11	Munchies
12	Paan Corner
13	Packaged Food
14	Personal Care

PRODUCTS IN STOCK VS OUT OF STOCK

SELECT outOfStock, COUNT(sku_id)

FROM Zepto

GROUP BY outOfStock;

	outofstock boolean 🔒	count bigint 🔒
1	false	3279
2	true	453

PRODUCT NAMES PRESENT MULTIPLE TIMES

SELECT name, COUNT(sku_id) as "Number Of SKUs"

FROM Zepto

GROUP BY name

HAVING COUNT(sku_id) > 1

ORDER BY COUNT(sku_id) DESC;

	name character varying (150)	Number Of SKUs bigint
1	Sunfeast Yippee! Pasta Treat - Sour Cream Onion	10
2	Arden Eggs White	10
3	Quaker Oats	10
4	Saffola Veggie Twist Masala Oats	10
5	Amul Delicious Fat Spread - Cholesterol Free	10
6	Mother's Recipe Tamarind Paste	10
7	Kellogg's Real Almond & Honey Corn Flakes	9
8	Amul Fresh Cream	8
9	iD Idli & Dosa Batter	7
10	Whisper Choice Regular Sanitary Pads	6
11	Closeup Everfresh+ Anti-Germ Gel Toothpaste Red Hot	6
12	Zorabian Chicken Kheema Parathas	6
13	Pantai Green Curry Paste	6
14	Everest Garam Masala	6
15	Everest Chicken Masala	6
16	Maggi Magic Cubes Extra Chicken	6
17	Ching's Secret Just Soak - Veg Hakka Noodles	6
18	Mother's Recipe Pickle - Mango	6
19	Kellogg's Original Corn Flakes	6
20	Everest Tandoori Chicken Masala	6
21	Whisper Ultra Clean XL Plus Sanitary Pad	6
	Kellogg's Cheese	6

Total rows: 1214   Query complete 00:00:00.099

DATA CLEANING

PRODUCT WITH PRICE=0

SELECT * FROM Zepto

WHERE mrp = 0 OR discountedSellingPrice = 0;

DELETE FROM Zepto

WHERE mrp = 0;

CONVERT PAISA INTO RUPEES

UPDATE Zepto

SET mrp = mrp/100.0,

discountedSellingPrice = discountedSellingPrice/100.0;

SELECT mrp, discountedSellingPrice FROM Zepto;

	mrp numeric (8,2)	discountedsellingprice numeric (8,2)
1	25.00	21.00
2	42.00	35.00
3	30.00	29.00
4	50.00	44.00
5	60.00	60.00
6	425.00	383.00
7	91.00	82.00
8	97.00	97.00
9	48.00	47.00
10	225.00	210.00
11	115.00	115.00
12	250.00	225.00
13	99.00	99.00
14	199.00	199.00
15	18.00	18.00
16	30.00	29.00
17	51.00	43.00
18	20.00	17.00
19	14.00	12.00
20	35.00	29.00
21	75.00	63.00

Total rows: 3731   Query complete 00:00:00.071

FIND THE TOP 10 BEST VALUE PRODUCTS BASED ON THE DISCOUNT PERCENTAGE

SELECT DISTINCT name, mrp, discountPercent

FROM Zepto

ORDER BY discountPercent DESC

LIMIT 10;

name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)
1	Dukes Waffy Orange Wafers	45.00	51.00
2	Dukes Waffy Chocolate Wafers	45.00	51.00
3	Dukes Waffy Strawberry Wafers	45.00	51.00
4	RRO Mozzarella Block Cheese	295.00	50.00
5	Ceres Foods Laal Maas Instant Liquid Masala	220.00	50.00
6	Chef's Basket Durum Wheat Elbow Pasta	160.00	50.00
7	RRO Mozzarella Pizza Cheese	275.00	50.00
8	Ceres Foods Fish Mustard Instant Liquid Ma...	220.00	50.00
9	Dukes Waffy Strawberry Roll	150.00	50.00
10	Ceres Foods Nalli Nihari Instant Liquid Masala	220.00	50.00

WHAT ARE THE PRODUCTS WITH HIGH MRP BUT OUT OF STOCK

SELECT DISTINCT name, mrp

FROM Zepto

WHERE outOfStock = TRUE and mrp > 300

ORDER BY mrp DESC;

name character varying (150)	mrp numeric (8,2)
1	Patanjali Cow's Ghee	565.00
2	MamyPoko Pants Standard Diapers, Extra Large (12 - 17 kg)	399.00
3	Aashirvaad Atta With Mutigrains	315.00
4	Everest Kashmiri Lal Chilli Powder	310.00

CALCULATE ESTIMATED REVENUE FOR EACH CATEGORY

SELECT category,

SUM(discountedSellingPrice * availableQuantity) AS total_revenue

FROM Zepto

GROUP BY category

ORDER BY total_revenue;

	category character varying (120)	total_revenue numeric
1	Fruits & Vegetables	10846.00
2	Meats, Fish & Eggs	20693.00
3	Biscuits	25007.60
4	Beverages	55051.00
5	Dairy, Bread & Batter	55051.00
6	Health & Hygiene	64180.00
7	Home & Cleaning	122661.00
8	Ice Cream & Desserts	224385.00
9	Chocolates & Candies	224385.00
10	Packaged Food	224385.00
11	Personal Care	270849.00
12	Paan Corner	270849.00
13	Munchies	337369.00
14	Cooking Essentials	337369.00

FIND ALL PRODUCTS WHERE MRP IS GREATER THAN 500 AND DISCOUNT IS LESS THAN 10%

SELECT DISTINCT name, mrp, discountPercent

FROM Zepto

WHERE mrp > 500 AND discountPercent <10

ORDER BY mrp desc, discountPercent DESC;

	name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)
1	Dhara Kachi Ghani Mustard Oil Jar	1250.00	8.00
2	Saffola Gold (Jar)	1240.00	0.00
3	Dhara Filtered Groundnut Oil (Jar)	1050.00	1.00
4	Fortune Rice Bran Health Oil (Jar)	1050.00	1.00
5	Dhara Filtered Groundnut Oil (Jar)	1050.00	0.00
6	Fortune Soyabean Oil	1005.00	0.00
7	Fortune Sunlite Refined Sunflower (Jar)	925.00	0.00
8	Surf Excel Matic Powder Front Load	810.00	7.00
9	Surf Excel Matic Top Load	720.00	9.00
10	Pedigree Puppy Dry Dog Food Food Chicken & Milk	690.00	6.00
11	Pedigree Dog Food Adult Meat & Rice	660.00	7.00
12	Lizol Double Concentrate Disinfectant Floor Cleaner Citrus	650.00	8.00
13	Nestle Nestle Nan Pro Follow-Up Formula	650.00	0.00
14	Dove Daily Shine Shampoo	645.00	5.00
15	L'Oreal Paris Excellence Creme Hair Color, 1 Black	620.00	0.00
16	L'Oreal Paris Excellence Creme Hair Color, 3 Dark Brown/Natural Darkest Bro...	620.00	0.00
17	L'Oreal Paris Excellence Creme Hair Color, 4 Natural Brown/Natural Dark Brown	620.00	0.00
18	L'Oreal Paris Excellence Creme Hair Color, 4.25 Aishwarya's Brown	620.00	0.00
19	Nestle Nan Pro 4 Follow Up Formula Powder For Older Infants	620.00	0.00
20	Pediasure Premium Chocolate Powdered Health Drink	610.00	0.00
21	Surf Excel Quick Wash	600.00	8.00

Total rows: 39   Query complete 00:00:00.081

IDENTIFY THE TOP 5 CATEGORIES OFFERING THE HIGHEST AVERAGE DISCOUNT PERCENTAGE

SELECT category,

ROUND(AVG(discountPercent),2) AS avg_discount

FROM Zepto

GROUP BY category

ORDER BY avg_discount DESC

LIMIT 5;

Data Output Messages Notifications

	category character varying (120)	avg_discount numeric
1	Fruits & Vegetables	15.46
2	Meats, Fish & Eggs	11.03
3	Ice Cream & Desserts	8.32
4	Chocolates & Candies	8.32
5	Packaged Food	8.32

FIND THE PRICE PER GRAM FOR PRODUCTS ABOVE 100G AND SORT BY BEST VALUE

SELECT DISTINCT name, weightInGms, discountedSellingPrice,

ROUND(discountedSellingPrice/weightInGms,2) AS price_per_gram

FROM Zepto

WHERE weightInGms >= 100

ORDER BY price_per_gram;

Data Output Messages Notifications

Showing rows: 1 to 1000

	name character varying (150)	weightingms integer	discountedsellingprice numeric (8,2)	price_per_gram numeric
1	Tata Salt	1000	24.00	0.02
2	Onion	1000	21.00	0.02
3	Onion	3000	57.00	0.02
4	Shubh kart - Nirmal sugandhi mogra wet dhoop zipper 20 sticks	1160	28.00	0.02
5	Vicks Cough Drops Menthol	1160	20.00	0.02
6	Aashirvaad Iodised Salt	1000	19.00	0.02
7	Carrot	500	15.00	0.03
8	Potato	1000	29.00	0.03
9	Beetroot	500	13.00	0.03
10	Baby Potato	500	16.00	0.03
11	Shubh kart - Tejas Twisted Cotton Wicks 1000n	1000	28.00	0.03
12	Raw Banana	500	17.00	0.03
13	Potato	3000	84.00	0.03
14	Tata Salt Lite	1000	36.00	0.04
15	Aashirvaad Atta	10000	399.00	0.04
16	Tomato Hybrid	1000	35.00	0.04
17	Capsicum	500	21.00	0.04
18	Radish White	500	19.00	0.04
19	Beetroot	250	9.00	0.04
20	Carrot	250	11.00	0.04
21	Pillsbury Chakki Fresh Atta	10000	375.00	0.04
	Pillsbury Atta (Gadibitt... Chakki Fresh	2000	84.00	0.05

Total rows: 1395   Query complete 00:00:00.100

GROUP THE PRODUCTS INTO CATEGORIES LIKE LOW, MEDIUM, BULK

SELECT DISTINCT name, weightInGms,

CASE WHEN weightInGms < 1000 THEN 'Low'

    WHEN weightInGms < 5000 THEN 'Medium'

ELSE 'Bulk'

END AS weight_category

FROM Zepto;

	name character varying (150)	weightingms integer	weight_category text
1	Popular Essentials Poppy Seeds (Gasagase)	100	Low
2	Origami Kitchen Towels 2 In 1 Quilted 2ply	116	Low
3	Origami Good Karma Paper Serviettes - 100 napkins (1 ply)	58	Low
4	Johnson's Baby Top To Toe Bath Body Wash	210	Low
5	Harpic Hygienic Toilet Cleaner Rim Block Citrus	26	Low
6	Lizol Disinfectant Surface & Floor Cleaner Liquid Jasmine	500	Low
7	Sapota	348	Low
8	Britannia Treart Creme Wafers Chocolate	60	Low
9	Popular Essentials Dhania (Coriander Seeds)	200	Low
10	Popular Essentials Californian Almond	250	Low
11	Everest Shahi Biryani Masala	50	Low
12	Keya Italian Pizza Oregano	80	Low
13	Figaro Plain Green Olive	450	Low
14	Methi	250	Low
15	Sunfeast Mom's Magic Cashew & Almond Biscuits	600	Low
16	Kellogg's Almonds And Cranberries Granola	460	Low
17	Britannia 50-50 Maska Chaska Biscuits	120	Low
18	Pantai Pad Thai Sauce (Non-Veg)	200	Low
19	Hershey's Hot Chocolate Powder	250	Low
20	Gits Jalebi with Maker Dessert Mix	100	Low
21	Banana Robusta	348	Low

Total rows: 1782   Query complete 00:00:00.101

WHAT IS THE TOTAL INVENTORY WEIGHT PER CATEGORY

SELECT category,

SUM(weightInGms * availableQuantity) AS total_weight

FROM Zepto

GROUP BY category

ORDER BY total_weight;

	category character varying (120)	total_weight bigint
1	Meats, Fish & Eggs	48016
2	Biscuits	84431
3	Fruits & Vegetables	91794
4	Health & Hygiene	142904
5	Dairy, Bread & Batter	143735
6	Beverages	143735
7	Paan Corner	348187
8	Personal Care	348187
9	Home & Cleaning	373161
10	Ice Cream & Desserts	490797
11	Chocolates & Candies	490797
12	Packaged Food	490797
13	Munchies	1404654
14	Cooking Essentials	1404654

INNER JOIN

TABLE 2: CATEGORY INFO

CREATE TABLE category_info (

   Category VARCHAR(50) PRIMARY KEY,

   description VARCHAR(255)

);

CATEGORY_INFO DATA

INSERT INTO category_info (Category, description) VALUES

('Fruits & Vegetables', 'Fresh farm produce'),

('Snacks', 'Packaged snacks and munchies'),

('Beverages', 'Drinks and refreshers');

INNER JOIN

SELECT z.Category, z.name, z.mrp, c.description

FROM Zepto AS z

INNER JOIN category_info AS c

ON z.Category = c.Category;

Data Output   Messages   Notifications

Showing rows: 1 to 22

	category character varying (120)	name character varying (150)	mrp numeric (8,2)	description character varying (255)
1	Fruits & Vegetables	Onion	25.00	Fresh farm produce
2	Fruits & Vegetables	Tomato Hybrid	42.00	Fresh farm produce
3	Beverages	iD Curd Cup	60.00	Drinks and refreshers
4	Fruits & Vegetables	Tender Coconut	51.00	Fresh farm produce
5	Fruits & Vegetables	Coriander Leaves	20.00	Fresh farm produce
6	Fruits & Vegetables	Ladies Finger	14.00	Fresh farm produce
7	Fruits & Vegetables	Potato	35.00	Fresh farm produce
8	Fruits & Vegetables	Lemon	75.00	Fresh farm produce
9	Fruits & Vegetables	Watermelon	58.00	Fresh farm produce
10	Fruits & Vegetables	Capsicum Green	23.00	Fresh farm produce
11	Fruits & Vegetables	Chilli Green	19.00	Fresh farm produce
12	Fruits & Vegetables	Banana Robusta	29.00	Fresh farm produce
13	Fruits & Vegetables	Garlic Indian	11.00	Fresh farm produce
14	Fruits & Vegetables	Cauliflower	26.00	Fresh farm produce
15	Fruits & Vegetables	Ginger	14.00	Fresh farm produce
16	Fruits & Vegetables	Spinach	19.00	Fresh farm produce
17	Fruits & Vegetables	Muskmelon	42.00	Fresh farm produce
18	Fruits & Vegetables	Cabbage	15.00	Fresh farm produce
19	Fruits & Vegetables	Methi	30.00	Fresh farm produce
20	Fruits & Vegetables	Broccoli	36.00	Fresh farm produce
21	Fruits & Vegetables	Sapota	30.00	Fresh farm produce

Total rows: 222   Query complete 00:00:00.159

CREATE VIEW

CREATE VIEW zepto_analysis AS

SELECT z.*, c.description

FROM Zepto AS z

LEFT JOIN category_info AS c

ON z.Category = c.Category;

	sku_id integer	category character varying (120)	name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)	availablequantity integer	discountedsellingprice numeric (8,2)	weightingms integer	outofstock boolean	quantity integer	description character varying (255)
1	1	Fruits & Vegetables	Onion	25.00	16.00	3	21.00	1000	false	1	Fresh farm produce
2	2	Fruits & Vegetables	Tomato Hybrid	42.00	16.00	3	35.00	1000	false	1	Fresh farm produce
3	768	Munchies	Everest Sabji Masala	30.00	3.00	6	29.00	50	false	50	[null]
4	842	Munchies	Popular Essentials Ajwain Whole	50.00	12.00	2	44.00	100	false	100	[null]
5	1272	Beverages	iD Curd Cup	60.00	0.00	6	60.00	400	false	400	Drinks and refreshers
6	1543	Packaged Food	Kellogg's Corn Flakes	425.00	9.00	1	383.00	1000	false	1	[null]
7	2132	Ice Cream & Desserts	Top Ramen Masala	91.00	9.00	0	82.00	560	true	560	[null]
8	2544	Meats, Fish & Eggs	Arden Eggs White	97.00	0.00	4	97.00	696	false	12	[null]
9	2655	Biscuits	Parle Rusk Elaichi	48.00	2.00	6	47.00	300	false	300	[null]
10	2788	Personal Care	Gillette Sensitive Shaving Foam	225.00	6.00	4	210.00	418	false	418	[null]
11	2988	Personal Care	Johnson's Baby Oil	115.00	0.00	4	115.00	100	false	100	[null]
12	3115	Paan Corner	Livon Anti-Frizz Serum	250.00	10.00	3	225.00	100	false	100	[null]
13	3181	Paan Corner	Godrej Protekt	99.00	0.00	3	99.00	750	false	750	[null]
14	3379	Paan Corner	Set Wet Deodrant Charm Avatar	199.00	0.00	1	199.00	150	false	150	[null]
15	3442	Home & Cleaning	Surf Excel Stain Eraser	18.00	0.00	1	18.00	150	false	150	[null]
16	3568	Home & Cleaning	Om Bhakti Gangajal Packed At Gangotri	30.00	3.00	6	29.00	220	false	220	[null]
17	3	Fruits & Vegetables	Tender Coconut	51.00	15.00	3	43.00	58	false	1	Fresh farm produce
18	4	Fruits & Vegetables	Coriander Leaves	20.00	15.00	3	17.00	100	false	100	Fresh farm produce
19	5	Fruits & Vegetables	Ladies Finger	14.00	14.00	3	12.00	250	false	250	Fresh farm produce
20	6	Fruits & Vegetables	Potato	35.00	17.00	3	29.00	1000	false	1	Fresh farm produce
21	7	Fruits & Vegetables	Lemon	75.00	16.00	3	63.00	200	false	200	Fresh farm produce

Showing rows: 1 to 1000   Page No: 1   of 4

Total rows: 3731   Query complete 00:00:00.118   CRLF   Ln 160, Col 1

INDEX CREATION

CHECK THE SNACK

SELECT z.*, c.description

FROM Zepto AS z

LEFT JOIN category_info AS c

ON z.Category = c.Category

WHERE z.Category = 'Snacks';

sku_id integer	category character varying (120)	name character varying (150)	mrp numeric (8,2)	discountpercent numeric (5,2)	availablequantity integer	discountedsellingprice numeric (8,2)	weightingms integer	outofstock boolean	quantity integer	description character varying

CREATE INDEX

CREATE INDEX idx_category_zepto

ON Zepto(Category);

CREATE INDEX idx_category_categoryinfo

ON category_info(Category);

SHOW THE INDEX

SELECT *

FROM pg_indexes

WHERE tablename = 'zepto';

Data Output   Messages   Notifications

Showing rows: 1 to

	schemaname name	tablename name	indexname name	tablespace name	indexdef text
1	public	zepto	zepto_pkey	[null]	CREATE UNIQUE INDEX zepto_pkey ON public.zepto USING btree (sku_id)
2	public	zepto	idx_category_zepto	[null]	CREATE INDEX idx_category_zepto ON public.zepto USING btree (category)