**1 dataset Coffee sales**

CREATE TABLE CoffeeSales (

date DATE,

datetime TIMESTAMP,

cash\_type VARCHAR(50),

card\_number VARCHAR(50),

money DECIMAL(10, 2),

coffee\_name VARCHAR(50)

);

INSERT INTO `CoffeeSales` (`date`, `datetime`, `cash\_type`, `card\_number`, `money`, `coffee\_name`)

VALUES

('2024-03-01', '2024-03-01 10:15:50.520', 'card', 'ANON-01', 38.7, 'Latte'),

('2024-03-01', '2024-03-01 12:19:22.539', 'card', 'ANON-02', 38.7, 'Hot Chocolate'),

('2024-03-01', '2024-03-01 13:46:33.006', 'card', 'ANON-03', 28.9, 'Americano'),

('2024-03-01', '2024-03-01 13:48:14.626', 'card', 'ANON-04', 38.7, 'Latte'),

('2024-03-01', '2024-03-01 15:39:47.726', 'card', 'ANON-05', 33.8, 'Americano with Milk'),

('2024-03-01', '2024-03-01 16:19:02.756', 'card', 'ANON-06', 38.7, 'Hot Chocolate'),

('2024-03-01', '2024-03-01 18:39:03.580', 'card', 'ANON-07', 33.8, 'Americano with Milk'),

('2024-03-01', '2024-03-01 19:22:01.762', 'card', 'ANON-08', 38.7, 'Cocoa'),

('2024-03-01', '2024-03-01 12:20:18.089', 'card', 'ANON-09', 38.7, 'Hot Chocolate'),

('2024-03-01', '2024-03-01 19:23:15.887', 'card', 'ANON-10', 33.8, 'Americano with Milk'),

('2024-03-01', '2024-03-01 19:29:17.391', 'card', 'ANON-11', 33.8, 'Americano with Milk'),

('2024-03-02', '2024-03-02 10:22:06.957', 'card', 'ANON-12', 28.9, 'Americano'),

('2024-03-02', '2024-03-02 10:41:41.249', 'card', 'ANON-13', 33.8, 'Americano with Milk'),

('2024-03-02', '2024-03-02 11:59:45.484', 'card', 'ANON-14', 33.8, 'Americano with Milk'),

('2024-03-02', '2024-03-02 14:38:35.535', 'card', 'ANON-15', 28.9, 'Americano'),

('2024-03-02', '2024-03-02 16:37:24.475', 'card', 'ANON-16', 33.8, 'Americano with Milk'),

('2024-03-02', '2024-03-02 17:34:54.969', 'card', 'ANON-17', 28.9, 'Americano'),

('2024-03-03', '2024-03-03 10:10:43.981', 'cash', 'ANON-18', 38.7, 'Latte'),

('2024-03-03', '2024-03-03 10:27:18.561', 'card', 'ANON-19', 38.7, 'Latte'),

('2024-03-03', '2024-03-03 11:33:56.118', 'card', 'ANON-20', 28.9, 'Cortado'),

('2024-03-03', '2024-03-03 12:26:56.098', 'card', 'ANON-21', 28.9, 'Americano'),

('2024-03-03', '2024-03-03 13:09:36.321', 'card', 'ANON-22', 38.7, 'Hot Chocolate'),

('2024-03-03', '2024-03-03 17:08:45.895', 'card', 'ANON-24', 28.9, 'Cortado'),

('2024-03-03', '2024-03-03 18:03:23.369', 'card', 'ANON-25', 33.8, 'Americano with Milk'),

('2024-03-03', '2024-03-03 18:04:27.946', 'card', 'ANON-26', 33.8, 'Americano with Milk'),

('2024-03-03', '2024-03-03 18:08:04.959', 'card', 'ANON-27', 38.7, 'Hot Chocolate'),

('2024-03-04', '2024-03-04 10:03:51.994', 'card', 'ANON-28', 38.7, 'Latte'),

('2024-03-04', '2024-03-04 10:54:50.958', 'card', 'ANON-29', 38.7, 'Latte'),

('2024-03-04', '2024-03-04 11:05:16.184', 'card', 'ANON-30', 33.8, 'Americano with Milk'),

('2024-03-04', '2024-03-04 14:04:37.734', 'card', 'ANON-31', 24.0, 'Espresso'),

('2024-03-05', '2024-03-05 09:59:52.651', 'card', 'ANON-32', 38.7, 'Latte'),

('2024-03-05', '2024-03-05 14:34:55.963', 'card', 'ANON-33', 38.7, 'Latte'),

('2024-03-05', '2024-03-05 17:34:06.043', 'card', 'ANON-34', 38.7, 'Latte'),

('2024-03-05', '2024-03-05 17:35:25.021', 'card', 'ANON-35', 38.7, 'Hot Chocolate'),

('2024-03-05', '2024-03-05 17:36:28.571', 'card', 'ANON-36', 38.7, 'Cocoa'),

('2024-03-05', '2024-03-05 17:37:13.659', 'card', 'ANON-37', 38.7, 'Hot Chocolate'),

('2024-03-05', '2024-03-05 17:38:09.354', 'card', 'ANON-38', 38.7, 'Hot Chocolate'),

('2024-03-05', '2024-03-05 17:56:15.776', 'card', 'ANON-39', 28.9, 'Cortado'),

('2024-03-05', '2024-03-05 18:01:31.242', 'card', 'ANON-40', 38.7, 'Hot Chocolate'),

('2024-03-06', '2024-03-06 12:30:27.089', 'cash', 'ANON-41', 35.0, 'Americano with Milk'),

('2024-03-06', '2024-03-06 13:24:07.667', 'card', 'ANON-42', 28.9, 'Americano'),

('2024-03-06', '2024-03-06 13:25:14.351', 'card', 'ANON-43', 28.9, 'Cortado'),

('2024-03-06', '2024-03-06 14:52:01.761', 'card', 'ANON-44', 38.7, 'Cappuccino'),

('2024-03-06', '2024-03-06 14:53:18.344', 'card', 'ANON-45', 38.7, 'Cappuccino'),

('2024-03-07', '2024-03-07 10:08:58.945', 'cash', 'ANON-46', 40.0, 'Latte'),

('2024-03-07', '2024-03-07 10:18:40.543', 'card', 'ANON-47', 38.7, 'Hot Chocolate'),

('2024-03-07', '2024-03-07 11:03:58.976', 'card', 'ANON-48', 38.7, 'Latte'),

('2024-03-07', '2024-03-07 15:40:22.606', 'card', 'ANON-49', 28.9, 'Americano'),

('2024-03-08', '2024-03-06 12:20:23.085', 'cash', 'ANON-50', 35.0,'Americano with Milk');

SELECT coffee\_name, SUM(money) AS total\_sales

FROM CoffeeSales

GROUP BY coffee\_name

ORDER BY total\_sales DESC;

--1. Общая сумма продаж по каждому виду кофе

| Output  coffee\_name | total\_sales |
| --- | --- |
| Latte | 426.99999999999994 |
| Americano with Milk | 408.00000000000006 |
| Hot Chocolate | 386.99999999999994 |
| Americano | 202.3 |
| Cortado | 115.6 |
| Cocoa | 77.4 |
| Cappuccino | 77.4 |
| Espresso | 24 |

SELECT date, COUNT(\*) AS purchase\_count

FROM CoffeeSales

GROUP BY date

ORDER BY date;

--2.Количество покупок за день

| Output  date | purchase\_count |
| --- | --- |
| 2024-03-01 | 11 |
| 2024-03-02 | 6 |
| 2024-03-03 | 9 |
| 2024-03-04 | 4 |
| 2024-03-05 | 9 |
| 2024-03-06 | 5 |
| 2024-03-07 | 4 |
| 2024-03-08 | 1 |

SELECT cash\_type, AVG(money) AS avg\_purchase

FROM CoffeeSales

GROUP BY cash\_type;

--3.Средняя стоимость покупки по типу оплаты

| Output  cash\_type | avg\_purchase |
| --- | --- |
| card | 34.88888888888891 |
| cash | 37.175 |

SELECT coffee\_name, COUNT(\*) AS total\_orders

FROM CoffeeSales

GROUP BY coffee\_name

ORDER BY total\_orders DESC

LIMIT 1;

--4.Самый популярный кофе

Output

| coffee\_name | total\_orders |
| --- | --- |
| Americano with Milk | 12 |

SELECT cash\_type, COUNT(\*) AS count

FROM CoffeeSales

GROUP BY cash\_type;

--5.Количество покупок наличными vs картой

| Output  cash\_type | count |
| --- | --- |
| card | 45 |
| cash | 4 |

**2 dataset Shopping trends**

CREATE TABLE ShoppingTrends (

Customer\_ID INT,

Age INT,

Gender VARCHAR(10),

Item\_Purchased VARCHAR(50),

Category VARCHAR(50),

Purchase\_Location VARCHAR(50),

Size VARCHAR(10),

Color VARCHAR(20),

Season VARCHAR(20),

Review\_Rating DECIMAL(3, 1),

Subscription VARCHAR(5),

Payment\_Method VARCHAR(50),

Shipping\_Type VARCHAR(50),

Discount\_Applied VARCHAR(5),

Promo\_Code VARCHAR(5),

Previous\_Purchase\_Count INT,

Preferred\_Method VARCHAR(50),

Frequency\_of\_Purchases VARCHAR(50)

);

INSERT INTO ShoppingTrends (

Customer\_ID, Age, Gender, Item\_Purchased, Category, Purchase\_Location, Size,

Color, Season, Review\_Rating, Subscription, Payment\_Method, Shipping\_Type,

Discount\_Applied, Promo\_Code, Previous\_Purchase\_Count, Preferred\_Method,

Frequency\_of\_Purchases

) VALUES

(3, 50, 'Male', 'Jeans', 'Clothing', 'Massachusetts', 'S', 'Maroon', 'Spring', '03.янв', 'Yes', 'Cash', 'Free Shipping', 'Yes', 'Yes', 23, 'Credit Card', 'Weekly'),

(4, 21, 'Female', 'Sandals', 'Footwear', 'Rhode Island', 'M', 'Maroon', 'Spring', '03.май', 'Yes', 'PayPal', 'Next Day Air', 'Yes', 'Yes', 49, 'PayPal', 'Weekly'),

(5, 45, 'Female', 'Blouse', 'Clothing', 'Oregon', 'M', 'Turquoise', 'Spring', '02.июл', 'Yes', 'Cash', 'Free Shipping', 'Yes', 'Yes', 31, 'PayPal', 'Annually'),

(6, 46, 'Male', 'Sneakers', 'Footwear', 'Wyoming', 'M', 'White', 'Summer', '02.сен', 'Yes', 'Venmo', 'Standard', 'Yes', 'Yes', 14, 'Venmo', 'Weekly'),

(7, 63, 'Male', 'Shirt', 'Clothing', 'Montana', 'M', 'Gray', 'Fall', '03.фев', 'Yes', 'Debit Card', 'Free Shipping', 'Yes', 'Yes', 49, 'Cash', 'Quarterly'),

(8, 27, 'Male', 'Shorts', 'Clothing', 'Louisiana', 'L', 'Charcoal', 'Winter', '03.фев', 'Yes', 'Debit Card', 'Free Shipping', 'Yes', 'Yes', 19, 'Credit Card', 'Weekly'),

(9, 26, 'Female', 'Coat', 'Outerwear', 'West Virginia', 'L', 'Silver', 'Summer', '02.июн', 'Yes', 'Venmo', 'Express', 'Yes', 'Yes', 8, 'Venmo', 'Annually'),

(10, 57, 'Female', 'Handbag', 'Accessories', 'Missouri', 'M', 'Pink', 'Spring', '04.авг', 'Yes', 'PayPal', '2-Day Shipping', 'Yes', 'Yes', 4, 'Cash', 'Quarterly'),

(11, 53, 'Male', 'Shoes', 'Footwear', 'Arkansas', 'L', 'Purple', 'Fall', '04.янв', 'Yes', 'Credit Card', 'Store Pickup', 'Yes', 'Yes', 26, 'Bank Transfer', 'Bi-Weekly'),

(12, 30, 'Male', 'Shorts', 'Clothing', 'Hawaii', 'S', 'Olive', 'Winter', '04.сен', 'Yes', 'PayPal', 'Store Pickup', 'Yes', 'Yes', 10, 'Bank Transfer', 'Fortnightly'),

(13, 61, 'Female', 'Coat', 'Outerwear', 'Delaware', 'M', 'Gold', 'Winter', '04.май', 'Yes', 'PayPal', 'Express', 'Yes', 'Yes', 37, 'Venmo', 'Fortnightly'),

(14, 65, 'Female', 'Dress', 'Clothing', 'New Hampshire', 'M', 'Violet', 'Spring', '04.июл', 'Yes', 'Debit Card', 'Express', 'Yes', 'Yes', 31, 'PayPal', 'Weekly'),

(15, 64, 'Female', 'Coat', 'Outerwear', 'New York', 'L', 'Teal', 'Winter', '04.июл', 'Yes', 'PayPal', 'Free Shipping', 'Yes', 'Yes', 34, 'Debit Card', 'Weekly'),

(16, 64, 'Female', 'Skirt', 'Clothing', 'Rhode Island', 'M', 'Teal', 'Winter', '02.авг', 'Yes', 'Credit Card', 'Store Pickup', 'Yes', 'Yes', 8, 'PayPal', 'Monthly'),

(17, 25, 'Female', 'Sunglasses', 'Accessories', 'Alabama', 'S', 'Gray', 'Spring', '04.янв', 'Yes', 'Venmo', 'Next Day Air', 'Yes', 'Yes', 44, 'Debit Card', 'Bi-Weekly'),

(18, 53, 'Female', 'Dress', 'Clothing', 'Mississippi', 'XL', 'Lavender', 'Winter', '04.июл', 'Yes', 'Debit Card', '2-Day Shipping', 'Yes', 'Yes', 36, 'Venmo', 'Quarterly'),

(19, 52, 'Male', 'Sweater', 'Clothing', 'Montana', 'S', 'Black', 'Summer', '04.июн', 'Yes', 'Bank Transfer', 'Free Shipping', 'Yes', 'Yes', 17, 'Cash', 'Weekly'),

(20, 66, 'Male', 'Pants', 'Clothing', 'Rhode Island', 'M', 'Green', 'Summer', '03.мар', 'Yes', 'Venmo', 'Standard', 'Yes', 'Yes', 46, 'Debit Card', 'Bi-Weekly'),

(21, 21, 'Male', 'Pants', 'Clothing', 'Louisiana', 'M', 'Black', 'Winter', '02.авг', 'Yes', 'Credit Card', 'Express', 'Yes', 'Yes', 50, 'Cash', 'Every 3 Months'),

(22, 31, 'Male', 'Pants', 'Clothing', 'North Carolina', 'M', 'Charcoal', 'Winter', '04.янв', 'Yes', 'Credit Card', 'Store Pickup', 'Yes', 'Yes', 22, 'Debit Card', 'Quarterly'),

(23, 56, 'Male', 'Pants', 'Clothing', 'California', 'M', 'Peach', 'Summer', '03.фев', 'Yes', 'Cash', 'Store Pickup', 'Yes', 'Yes', 32, 'Debit Card', 'Annually'),

(24, 31, 'Male', 'Pants', 'Clothing', 'Oklahoma', 'XL', 'White', 'Winter', '04.апр', 'Yes', 'Credit Card', 'Express', 'Yes', 'Yes', 40, 'Credit Card', 'Weekly'),

(25, 18, 'Male', 'Jacket', 'Outerwear', 'Florida', 'M', 'Green', 'Fall', '02.сен', 'Yes', 'Cash', 'Store Pickup', 'Yes', 'Yes', 16, 'Debit Card', 'Weekly'),

(26, 18, 'Male', 'Hoodie', 'Clothing', 'Texas', 'M', 'Silver', 'Summer', '03.июн', 'Yes', 'Bank Transfer', 'Express', 'Yes', 'Yes', 14, 'PayPal', 'Annually'),

(27, 38, 'Female', 'Jewelry', 'Accessories', 'Nevada', 'M', 'Red', 'Spring', '03.июн', 'Yes', 'Cash', 'Next Day Air', 'Yes', 'Yes', 13, 'Credit Card', 'Annually'),

(28, 56, 'Male', 'Shorts', 'Clothing', 'Kentucky', 'L', 'Cyan', 'Summer', '5.0', 'Yes', 'Debit Card', 'Next Day Air', 'Yes', 'Yes', 7, 'Bank Transfer', 'Every 3 Months'),

(29, 54, 'Female', 'Handbag', 'Accessories', 'North Carolina', 'M', 'Gray', 'Fall', '04.апр', 'Yes', 'Debit Card', 'Free Shipping', 'Yes', 'Yes', 41, 'PayPal', 'Every 3 Months'),

(30, 31, 'Female', 'Dress', 'Clothing', 'Wyoming', 'S', 'Black', 'Fall', '04.янв', 'Yes', 'Venmo', 'Store Pickup', 'Yes', 'Yes', 14, 'Credit Card', 'Weekly'),

(31, 57, 'Female', 'Jewelry', 'Accessories', 'North Carolina', 'L', 'Black', 'Winter', '04.июл', 'Yes', 'Bank Transfer', 'Standard', 'Yes', 'Yes', 16, 'Credit Card', 'Monthly'),

(32, 33, 'Female', 'Dress', 'Clothing', 'West Virginia', 'L', 'Brown', 'Winter', '04.июл', 'Yes', 'Venmo', 'Store Pickup', 'Yes', 'Yes', 45, 'Venmo', 'Monthly'),

(33, 36, 'Male', 'Jacket', 'Outerwear', 'Kansas', 'M', 'Silver', 'Summer', '04.сен', 'Yes', 'Bank Transfer', 'Free Shipping', 'Yes', 'Yes', 37, 'Venmo', 'Annually'),

(34, 54, 'Male', 'Pants', 'Clothing', 'Colorado', 'L', 'Green', 'Summer', '03.мар', 'Yes', 'Venmo', 'Store Pickup', 'Yes', 'Yes', 45, 'Cash', 'Quarterly'),

(35, 36, 'Male', 'T-shirt', 'Clothing', 'North Dakota', 'L', 'Violet', 'Spring', '04.юн', 'Yes', 'Debit Card', '2-Day Shipping', 'Yes', 'Yes', 38, 'PayPal', 'Quarterly'),

(36, 54, 'Male', 'Blouse', 'Clothing', 'Massachusetts', 'M', 'Cyan', 'Summer', '4.0', 'Yes', 'Bank Transfer', '2-Day Shipping', 'Yes', 'Yes', 48, 'Credit Card', 'Bi-Weekly'),

(37, 35, 'Male', 'T-shirt', 'Clothing', 'Illinois', 'M', 'Maroon', 'Winter', '04.июн', 'Yes', 'Cash', 'Free Shipping', 'Yes', 'Yes', 44, 'PayPal', 'Fortnightly'),

(38, 35, 'Male', 'Jeans', 'Clothing', 'Indiana', 'S', 'Cyan', 'Summer', '02.авг', 'Yes', 'Debit Card', 'Store Pickup', 'Yes', 'Yes', 10, 'PayPal', 'Weekly'),

(39, 29, 'Female', 'Dress', 'Clothing', 'Florida', 'M', 'Red', 'Winter', '03.июл', 'Yes', 'Debit Card', '2-Day Shipping', 'Yes', 'Yes', 44, 'Venmo', 'Every 3 Months'),

(40, 70, 'Male', 'Pants', 'Clothing', 'Arizona', 'S', 'Turquoise', 'Summer', '04.фев', 'Yes', 'Bank Transfer', 'Express', 'Yes', 'Yes', 18, 'Credit Card', 'Monthly'),

SELECT Gender, AVG(Age) AS Average\_Age

FROM ShoppingTrends

GROUP BY Gender;

--1.Средний возраст

| Output  Gender | Average\_Age |
| --- | --- |
| Female | 45.1875 |
| Male | 42.63636363636363 |

SELECT Category, COUNT(Item\_Purchased) AS Purchase\_Count

FROM ShoppingTrends

GROUP BY Category;

--2.Сумма покупок каждого товара

| Output  Category | Purchase\_Count |
| --- | --- |
| Accessories | 5 |
| Clothing | 25 |
| Footwear | 3 |
| Outerwear | 5 |

SELECT Item\_Purchased, COUNT(\*) AS Purchase\_Frequency

FROM ShoppingTrends

GROUP BY Item\_Purchased

ORDER BY Purchase\_Frequency DESC

LIMIT 5;

--3.Топ 5 покупаемых товаров

| Output  Item\_Purchased | Purchase\_Frequency |
| --- | --- |
| Pants | 7 |
| Dress | 5 |
| Shorts | 3 |
| Coat | 3 |
| T-shirt | 2 |

SELECT Payment\_Method, COUNT(\*) AS Frequency

FROM ShoppingTrends

GROUP BY Payment\_Method

ORDER BY Frequency DESC

LIMIT 1;

--4.Самый используемый метод оплаты

​

| Output  Payment\_Method | Frequency |
| --- | --- |
| Debit Card | 9 |

SELECT Subscription, COUNT(\*) AS Purchase\_Frequency

FROM ShoppingTrends

GROUP BY Subscription;

--5.Покупки по подписке

​

| Output  Subscription | Purchase\_Frequency |
| --- | --- |
| Yes | 38 |