**CASE STUDY - 2**

**TEXTURE TALES**

**SQL Query:**

USE Casestudy;

CREATE TABLE product\_hierarchy (

id INT PRIMARY KEY,

parent\_id INT,

level\_text VARCHAR(50),

level\_name VARCHAR(20)

);

INSERT INTO product\_hierarchy (id, parent\_id, level\_text, level\_name) VALUES

(1, NULL, 'Womens', 'Category'),

(2, NULL, 'Mens', 'Category'),

(3, 1, 'Jeans', 'Segment'),

(4, 1, 'Jacket', 'Segment'),

(5, 2, 'Shirt', 'Segment'),

(6, 2, 'Socks', 'Segment'),

(7, 3, 'Navy Oversized', 'Style'),

(8, 3, 'Black Straight', 'Style'),

(9, 3, 'Cream Relaxed', 'Style'),

(10, 4, 'Khaki Suit', 'Style'),

(11, 4, 'Indigo Rain', 'Style'),

(12, 4, 'Grey Fashion', 'Style'),

(13, 5, 'White Tee', 'Style'),

(14, 5, 'Teal Button Up', 'Style'),

(15, 5, 'Blue Polo', 'Style'),

(16, 6, 'Navy Solid', 'Style'),

(17, 6, 'White Striped', 'Style'),

(18, 6, 'Pink Fluro Polkadot', 'Style');

CREATE TABLE product\_details (

product\_id VARCHAR(10) PRIMARY KEY,

price INT,

product\_name VARCHAR(100),

category\_id INT,

segment\_id INT,

style\_id INT,

category\_name VARCHAR(20),

segment\_name VARCHAR(20),

style\_name VARCHAR(50)

);

INSERT INTO product\_details (product\_id, price, product\_name, category\_id, segment\_id, style\_id, category\_name, segment\_name, style\_name) VALUES

('P0001', 33, 'Pink Fluro Polkadot Socks - Mens', 2, 6, 18, 'Mens', 'Socks', 'Pink Fluro Polkadot'),

('P0002', 47, 'Indigo Rain Jacket - Womens', 1, 4, 11, 'Womens', 'Jacket', 'Indigo Rain'),

('P0003', 31, 'Teal Button Up Shirt - Mens', 2, 5, 14, 'Mens', 'Shirt', 'Teal Button Up'),

('P0004', 25, 'Khaki Suit Jacket - Womens', 1, 4, 10, 'Womens', 'Jacket', 'Khaki Suit'),

('P0005', 42, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee'),

('P0006', 40, 'Blue Polo Shirt - Mens', 2, 5, 15, 'Mens', 'Shirt', 'Blue Polo'),

('P0007', 52, 'Black Straight Jeans - Womens', 1, 3, 8, 'Womens', 'Jeans', 'Black Straight'),

('P0008', 30, 'Cream Relaxed Jeans - Womens', 1, 3, 9, 'Womens', 'Jeans', 'Cream Relaxed'),

('P0009', 37, 'Grey Fashion Jacket - Womens', 1, 4, 12, 'Womens', 'Jacket', 'Grey Fashion'),

('P0010', 13, 'Navy Oversized Jeans - Womens', 1, 3, 7, 'Womens', 'Jeans', 'Navy Oversized'),

('P0011', 10, 'White Striped Socks - Mens', 2, 6, 17, 'Mens', 'Socks', 'White Striped'),

('P0012', 29, 'Navy Solid Socks - Mens', 2, 6, 16, 'Mens', 'Socks', 'Navy Solid'),

('P0013', 46, 'Teal Button Up Shirt - Mens', 2, 5, 14, 'Mens', 'Shirt', 'Teal Button Up'),

('P0014', 33, 'Cream Relaxed Jeans - Womens', 1, 3, 9, 'Womens', 'Jeans', 'Cream Relaxed'),

('P0015', 18, 'Pink Fluro Polkadot Socks - Mens', 2, 6, 18, 'Mens', 'Socks', 'Pink Fluro Polkadot'),

('P0016', 23, 'Khaki Suit Jacket - Womens', 1, 4, 10, 'Womens', 'Jacket', 'Khaki Suit'),

('P0017', 50, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee'),

('P0018', 39, 'Navy Oversized Jeans - Womens', 1, 3, 7, 'Womens', 'Jeans', 'Navy Oversized'),

('P0019', 35, 'Black Straight Jeans - Womens', 1, 3, 8, 'Womens', 'Jeans', 'Black Straight'),

('P0020', 48, 'White Striped Socks - Mens', 2, 6, 17, 'Mens', 'Socks', 'White Striped'),

('P0021', 16, 'Navy Solid Socks - Mens', 2, 6, 16, 'Mens', 'Socks', 'Navy Solid'),

('P0022', 45, 'Teal Button Up Shirt - Mens', 2, 5, 14, 'Mens', 'Shirt', 'Teal Button Up'),

('P0023', 55, 'Grey Fashion Jacket - Womens', 1, 4, 12, 'Womens', 'Jacket', 'Grey Fashion'),

('P0024', 26, 'Cream Relaxed Jeans - Womens', 1, 3, 9, 'Womens', 'Jeans', 'Cream Relaxed'),

('P0025', 34, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee'),

('P0026', 32, 'Blue Polo Shirt - Mens', 2, 5, 15, 'Mens', 'Shirt', 'Blue Polo'),

('P0027', 22, 'Pink Fluro Polkadot Socks - Mens', 2, 6, 18, 'Mens', 'Socks', 'Pink Fluro Polkadot'),

('P0028', 60, 'Indigo Rain Jacket - Womens', 1, 4, 11, 'Womens', 'Jacket', 'Indigo Rain'),

('P0029', 44, 'Khaki Suit Jacket - Womens', 1, 4, 10, 'Womens', 'Jacket', 'Khaki Suit'),

('P0030', 54, 'Black Straight Jeans - Womens', 1, 3, 8, 'Womens', 'Jeans', 'Black Straight'),

('P0031', 36, 'Navy Solid Socks - Mens', 2, 6, 16, 'Mens', 'Socks', 'Navy Solid'),

('P0032', 21, 'White Striped Socks - Mens', 2, 6, 17, 'Mens', 'Socks', 'White Striped'),

('P0033', 27, 'Teal Button Up Shirt - Mens', 2, 5, 14, 'Mens', 'Shirt', 'Teal Button Up'),

('P0034', 58, 'Grey Fashion Jacket - Womens', 1, 4, 12, 'Womens', 'Jacket', 'Grey Fashion'),

('P0035', 41, 'Cream Relaxed Jeans - Womens', 1, 3, 9, 'Womens', 'Jeans', 'Cream Relaxed'),

('P0036', 30, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee'),

('P0037', 37, 'Blue Polo Shirt - Mens', 2, 5, 15, 'Mens', 'Shirt', 'Blue Polo'),

('P0038', 19, 'Pink Fluro Polkadot Socks - Mens', 2, 6, 18, 'Mens', 'Socks', 'Pink Fluro Polkadot'),

('P0039', 59, 'Indigo Rain Jacket - Womens', 1, 4, 11, 'Womens', 'Jacket', 'Indigo Rain'),

('P0040', 38, 'Khaki Suit Jacket - Womens', 1, 4, 10, 'Womens', 'Jacket', 'Khaki Suit'),

('P0041', 50, 'Black Straight Jeans - Womens', 1, 3, 8, 'Womens', 'Jeans', 'Black Straight'),

('P0042', 14, 'White Striped Socks - Mens', 2, 6, 17, 'Mens', 'Socks', 'White Striped'),

('P0043', 20, 'Navy Solid Socks - Mens', 2, 6, 16, 'Mens', 'Socks', 'Navy Solid'),

('P0044', 35, 'Teal Button Up Shirt - Mens', 2, 5, 14, 'Mens', 'Shirt', 'Teal Button Up'),

('P0045', 46, 'Grey Fashion Jacket - Womens', 1, 4, 12, 'Womens', 'Jacket', 'Grey Fashion'),

('P0046', 24, 'Cream Relaxed Jeans - Womens', 1, 3, 9, 'Womens', 'Jeans', 'Cream Relaxed'),

('P0047', 39, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee'),

('P0048', 43, 'Blue Polo Shirt - Mens', 2, 5, 15, 'Mens', 'Shirt', 'Blue Polo'),

('P0049', 26, 'Pink Fluro Polkadot Socks - Mens', 2, 6, 18, 'Mens', 'Socks', 'Pink Fluro Polkadot'),

('P0050', 28, 'White Tee Shirt - Mens', 2, 5, 13, 'Mens', 'Shirt', 'White Tee');

CREATE TABLE product\_prices (

id INT PRIMARY KEY,

product\_id VARCHAR(10),

price INT

);

INSERT INTO product\_prices (id, product\_id, price) VALUES

(1, 'P0001', 33),

(2, 'P0002', 47),

(3, 'P0003', 31),

(4, 'P0004', 25),

(5, 'P0005', 42),

(6, 'P0006', 40),

(7, 'P0007', 52),

(8, 'P0008', 30),

(9, 'P0009', 37),

(10, 'P0010', 13),

(11, 'P0011', 10),

(12, 'P0012', 29),

(13, 'P0013', 46),

(14, 'P0014', 33),

(15, 'P0015', 18),

(16, 'P0016', 23),

(17, 'P0017', 50),

(18, 'P0018', 39),

(19, 'P0019', 35),

(20, 'P0020', 48),

(21, 'P0021', 16),

(22, 'P0022', 45),

(23, 'P0023', 55),

(24, 'P0024', 26),

(25, 'P0025', 34),

(26, 'P0026', 32),

(27, 'P0027', 22),

(28, 'P0028', 60),

(29, 'P0029', 44),

(30, 'P0030', 54),

(31, 'P0031', 36),

(32, 'P0032', 21),

(33, 'P0033', 27),

(34, 'P0034', 58),

(35, 'P0035', 41),

(36, 'P0036', 30),

(37, 'P0037', 37),

(38, 'P0038', 19),

(39, 'P0039', 59),

(40, 'P0040', 38),

(41, 'P0041', 50),

(42, 'P0042', 14),

(43, 'P0043', 20),

(44, 'P0044', 35),

(45, 'P0045', 46),

(46, 'P0046', 24),

(47, 'P0047', 39),

(48, 'P0048', 43),

(49, 'P0049', 26),

(50, 'P0050', 28);

CREATE TABLE sales (

prod\_id VARCHAR(10),

qty INT,

price INT,

discount INT,

member VARCHAR(10),

txn\_id VARCHAR(10),

start\_txn\_time VARCHAR(30)

);

INSERT INTO sales (prod\_id, qty, price, discount, member, txn\_id, start\_txn\_time) VALUES

('P0001', 2, 33, 3, 'Yes', 'TX1001', '2025-06-01 10:00:00'),

('P0002', 1, 47, 2, 'No', 'TX1002', '2025-06-01 11:00:00'),

('P0003', 3, 31, 1, 'Yes', 'TX1003', '2025-06-01 12:00:00'),

('P0004', 2, 25, 2, 'No', 'TX1004', '2025-06-01 13:00:00'),

('P0005', 1, 42, 0, 'Yes', 'TX1005', '2025-06-02 10:00:00'),

('P0006', 2, 40, 1, 'No', 'TX1006', '2025-06-02 11:00:00'),

('P0007', 1, 52, 2, 'Yes', 'TX1007', '2025-06-02 12:00:00'),

('P0008', 3, 30, 3, 'Yes', 'TX1008', '2025-06-02 13:00:00'),

('P0009', 2, 37, 2, 'No', 'TX1009', '2025-06-03 10:00:00'),

('P0010', 1, 13, 1, 'Yes', 'TX1010', '2025-06-03 11:00:00'),

('P0011', 2, 10, 1, 'No', 'TX1011', '2025-06-03 12:00:00'),

('P0012', 1, 29, 0, 'Yes', 'TX1012', '2025-06-03 13:00:00'),

('P0013', 2, 46, 2, 'Yes', 'TX1013', '2025-06-04 10:00:00'),

('P0014', 1, 33, 1, 'No', 'TX1014', '2025-06-04 11:00:00'),

('P0015', 3, 18, 0, 'Yes', 'TX1015', '2025-06-04 12:00:00'),

('P0016', 2, 23, 2, 'Yes', 'TX1016', '2025-06-04 13:00:00'),

('P0017', 2, 50, 3, 'No', 'TX1017', '2025-06-05 10:00:00'),

('P0018', 1, 39, 2, 'Yes', 'TX1018', '2025-06-05 11:00:00'),

('P0019', 2, 35, 1, 'No', 'TX1019', '2025-06-05 12:00:00'),

('P0020', 1, 48, 3, 'Yes', 'TX1020', '2025-06-05 13:00:00'),

('P0021', 2, 16, 0, 'No', 'TX1021', '2025-06-06 10:00:00'),

('P0022', 1, 45, 1, 'Yes', 'TX1022', '2025-06-06 11:00:00'),

('P0023', 3, 55, 2, 'Yes', 'TX1023', '2025-06-06 12:00:00'),

('P0024', 1, 26, 1, 'No', 'TX1024', '2025-06-06 13:00:00'),

('P0025', 2, 34, 1, 'Yes', 'TX1025', '2025-06-07 10:00:00'),

('P0026', 2, 32, 3, 'No', 'TX1026', '2025-06-07 11:00:00'),

('P0027', 1, 22, 1, 'Yes', 'TX1027', '2025-06-07 12:00:00'),

('P0028', 2, 60, 2, 'Yes', 'TX1028', '2025-06-07 13:00:00'),

('P0029', 1, 44, 3, 'No', 'TX1029', '2025-06-08 10:00:00'),

('P0030', 3, 54, 2, 'Yes', 'TX1030', '2025-06-08 11:00:00'),

('P0031', 2, 36, 1, 'Yes', 'TX1031', '2025-06-08 12:00:00'),

('P0032', 1, 21, 0, 'No', 'TX1032', '2025-06-08 13:00:00'),

('P0033', 2, 27, 2, 'Yes', 'TX1033', '2025-06-09 10:00:00'),

('P0034', 2, 58, 3, 'Yes', 'TX1034', '2025-06-09 11:00:00'),

('P0035', 1, 41, 1, 'No', 'TX1035', '2025-06-09 12:00:00'),

('P0036', 2, 30, 1, 'Yes', 'TX1036', '2025-06-09 13:00:00'),

('P0037', 2, 37, 0, 'Yes', 'TX1037', '2025-06-10 10:00:00'),

('P0038', 1, 19, 2, 'No', 'TX1038', '2025-06-10 11:00:00'),

('P0039', 2, 59, 3, 'Yes', 'TX1039', '2025-06-10 12:00:00'),

('P0040', 2, 38, 1, 'No', 'TX1040', '2025-06-10 13:00:00'),

('P0041', 1, 50, 2, 'Yes', 'TX1041', '2025-06-11 10:00:00'),

('P0042', 2, 14, 1, 'Yes', 'TX1042', '2025-06-11 11:00:00'),

('P0043', 3, 20, 0, 'No', 'TX1043', '2025-06-11 12:00:00'),

('P0044', 2, 35, 3, 'Yes', 'TX1044', '2025-06-11 13:00:00'),

('P0045', 1, 46, 2, 'No', 'TX1045', '2025-06-12 10:00:00'),

('P0046', 1, 24, 0, 'Yes', 'TX1046', '2025-06-12 11:00:00'),

('P0047', 2, 39, 1, 'Yes', 'TX1047', '2025-06-12 12:00:00'),

('P0048', 2, 43, 3, 'No', 'TX1048', '2025-06-12 13:00:00'),

('P0049', 1, 26, 2, 'Yes', 'TX1049', '2025-06-13 10:00:00'),

('P0050', 3, 28, 1, 'Yes', 'TX1050', '2025-06-13 11:00:00');

-- Q1: Total Quantity Sold

SELECT SUM(qty) AS total\_quantity\_sold

FROM sales;



-- Q2: Total Revenue Before Discounts

SELECT SUM(qty \* price) AS total\_revenue\_before\_discount

FROM sales;



-- Q3: Total Discount Amount

SELECT SUM(qty \* discount) AS total\_discount\_amount

FROM sales;



-- Q4: Number of Unique Transactions

SELECT COUNT(DISTINCT txn\_id) AS unique\_transactions

FROM sales;



-- Q5: Average Unique Products Per Transaction

SELECT ROUND(AVG(product\_count), 2) AS avg\_unique\_products\_per\_transaction

FROM (

SELECT txn\_id, COUNT(DISTINCT prod\_id) AS product\_count

FROM sales

GROUP BY txn\_id

) AS product\_counts;

