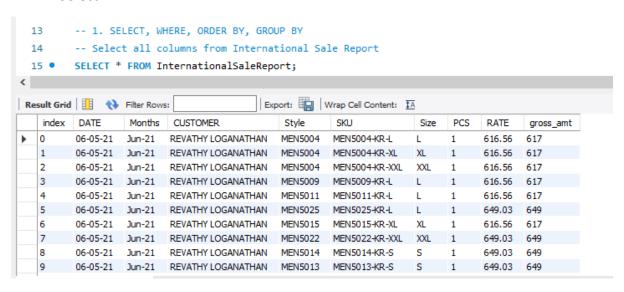
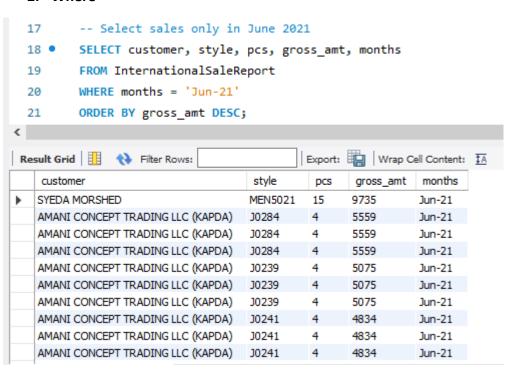
TASK 3: SQL for Data Analysis

1. Select



2. Where



3. Group

```
-- Group sales by Customer and find their total sales
         SELECT customer, SUM(gross_amt) AS total_sales
         FROM InternationalSaleReport
         GROUP BY customer
  26
  27
         ORDER BY total_sales DESC;
Export: Wrap Cell Conter
    customer
                                     total_sales
   MULBERRIES BOUTIQUE
                                    2094070.5
   AMANI CONCEPT TRADING LLC (KAPDA)
                                    930451
   VAHARSHA BOUTIQUE
                                    527214
   GALAXY GROUP OF COMPANIES PVT, LTD 445058
   RIVAAN LLC
                                    443042
   SURE FASHIONS LLC
                                    403253
   BHANU SALEINE NAUNITHAM
                                    356998
   COTTON CLOSET LTD
                                    345265
   VISHA DEVAN
                                    321028
   NIRUSAH TAILORING
                                    316470
```

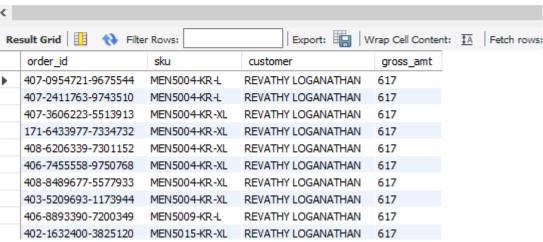
```
4. Joins
     1. Inner Join
          -- 2. JOINS (INNER JOIN, LEFT JOIN, RIGHT JOIN)
  30
         -- INNER JOIN: Matching sales by SKU
  31
         SELECT a.order_id, a.sku, a.amount, i.customer, i.gross_amt
  32 •
         FROM AmazonSaleReport a
  33
         INNER JOIN InternationalSaleReport i
  34
         ON a.sku = i.sku;
  36
                                          Export: Wrap Cell Content: TA Fetch rows:
order_id
                                     amount customer
                                                                       gross_amt
   405-8078784-5731545
                      SET389-KR-NP-S
                                    647.62
                                             MULBERRIES BOUTIQUE
                                                                       1000
   405-8078784-5731545 SET389-KR-NP-S 647.62 MULBERRIES BOUTIQUE
                                                                       1000
   405-8078784-5731545 SET389-KR-NP-S 647.62
                                            Jan-22
   405-8078784-5731545 SET389-KR-NP-S 647.62 Jan-22
                                                                      60
                                             RIVAAN LLC
   404-0687676-7273146 JNE3371-KR-XL
                                    329
                                                                       528
   404-0687676-7273146 JNE3371-KR-XL 329
                                            Sep-21
                                                                      3
   403-9615377-8133951 J0341-DR-L
                                    753.33 M/S CHARISMAKURTIES(DUBAI)
                                                                      1404
   403-9615377-8133951 J0341-DR-L
                                    753.33
                                            MULBERRIES BOUTIQUE
                                                                       781
   403-9615377-8133951 J0341-DR-L
                                     753.33
                                             AVIN
                                                                       775
   403-9615377-8133951 J0341-DR-L
                                   753.33
                                            AVIN
                                                                      775
```

2. Left Join

```
-- LEFT JOIN: All Amazon orders, matched with International sales
 37
         SELECT a.order_id, a.sku, i.customer, i.gross_amt
 38 •
         FROM AmazonSaleReport a
 39
         LEFT JOIN InternationalSaleReport i
 40
         ON a.sku = i.sku;
 41
Result Grid
                                             Export: Wrap Cell Content: TA Fetch rov
               Filter Rows:
   order id
                                         customer
                                                                     gross amt
   405-8078784-5731545
                       SET389-KR-NP-S
                                        MULBERRIES BOUTIQUE
                                                                    1000
   405-8078784-5731545
                       SET389-KR-NP-S
                                        MULBERRIES BOUTIQUE
                                                                    1000
   405-8078784-5731545
                       SET389-KR-NP-S
                                        Jan-22
                                                                    60
                                                                    60
   405-8078784-5731545
                       SET389-KR-NP-S
                                        Jan-22
   171-9198151-1101146
                       JNE3781-KR-XXXL
                                        RIVAAN LLC
                                                                    528
   404-0687676-7273146 JNE3371-KR-XL
   404-0687676-7273146
                       JNE3371-KR-XL
                                        Sep-21
                                                                    3
   403-9615377-8133951
                       J0341-DR-L
                                        M/S CHARISMAKURTIES(DUBAI)
                                                                    1404
   403-9615377-8133951
                       J0341-DR-L
                                        MULBERRIES BOUTIQUE
                                                                    781
   403-9615377-8133951 J0341-DR-L
                                        AVIN
                                                                    775
```

3. Right Join

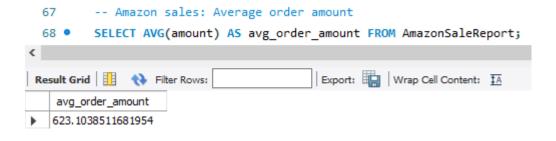
- 43 -- RIGHT JOIN: All International sales, matched with Amazon orders
- 44 SELECT a.order_id, a.sku, i.customer, i.gross_amt
- 45 FROM AmazonSaleReport a
- 46 RIGHT JOIN InternationalSaleReport i
- 47 ON a.sku = i.sku;



5. SubQueries

```
50
        -- 3. Subqueries
        -- Subquery to find customers whose total sales > 5000
        SELECT customer, total_sales
 52 •

⊖ FROM (
 53
            SELECT customer, SUM(gross_amt) AS total_sales
            FROM InternationalSaleReport
 55
            GROUP BY customer
 56
        ) AS sales summary
 57
        WHERE total_sales > 5000;
 58
 59
                                         Export: Wrap Cell Content:
Result Grid
             Filter Rows:
   customer
                                  total_sales
  REVATHY LOGANATHAN
                                 197381
  FARIA ESSOPP
                                 27989
  MANGALAM SHOP
                                 65504
  THANA NAGISSWARY L MARIMUTHU
                                 25195
  MR.ALWAR MURALI
                                 6460
  RAZIA ROSEANE NASER
                                 54390
  SIRI PADALA
                                 10129
  FUSION FASHIONS CORP.
                                 271675
  MIZNA WAHEEDH
                                 18332
  6. Aggregation Function
     1. Sum()
         -- 4. Aggregate Functions (SUM, AVG)
         -- Total sales amount
         SELECT SUM(gross amt) AS total gross sales FROM InternationalSaleReport;
                                         Export: Wrap Cell Content: IA
total_gross_sales
16395599.19
     2. Avg()
        -- Average number of pieces sold per order
        SELECT AVG(pcs) AS avg_pieces_sold FROM InternationalSaleReport;
                                         Export: Wrap Cell Content: IA
avg_pieces_sold
  402.21806902805645
```



7. Views

-- Create a view for high-value international sales

CREATE VIEW HighValueInternationalSales AS

SELECT customer, style, pcs, gross_amt

FROM International Sale Report

WHERE gross_amt > 1000;

53 16:21:40 CREATE VIEW HighValueInternationalSales AS SELECT customer, style, pcs, gross_amt_FROM InternationalSale... 0 row(s) affected

-- Create a view for Amazon Delivered Orders

CREATE VIEW AmazonDeliveredOrders AS

SELECT order_id, sku, amount

FROM AmazonSaleReport

WHERE status LIKE '%Delivered%';

54 16:21:48 CREATE VIEW AmazonDeliveredOrders AS SELECT order_id, sku, amount FROM AmazonSaleReport WHERE st... 0 row(s) affected

8. Indexes (to speed up queries)

-- Index on SKU to speed up JOINs

CREATE INDEX idx_sku_international ON InternationalSaleReport(sku(50));

56 16:23:22 CREATE INDEX idx_sku_international ON InternationalSaleReport(sku(50))

-- Index on Amazon order date for faster date-based queries

CREATE INDEX idx_order_date_amazon ON AmazonSaleReport(date(20));

62 16:24:59 CREATE INDEX idx_order_date_amazon ON AmazonSaleReport(date(20))