

1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

The screenshot shows a database management interface with a left-hand sidebar and a main query editor area.

Left Sidebar:

- Navigator:** Contains a 'SCHEMAS' section with a search bar labeled 'Filter objects'. Below it, a tree view shows databases 'gdb023', 'gdb041', and 'gdb056'. Under 'gdb041', there are folders for 'Tables', 'Views', 'Stored Procedures', and 'Functions'. At the bottom of the sidebar are tabs for 'Administration' and 'Schemas'.
- Information:** Displays 'Schema: gdb0041'.

Main Query Editor:

- Query 1** (gdb0041): The query text is:

```
1 # The list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.
2 SELECT DISTINCT market
3 FROM dim_customer
4 WHERE customer ="Atliq Exclusive" AND region ="APAC"
5 ORDER BY market;
6
```
- Toolbar:** Includes icons for file operations, a 'Limit to 1000 rows' dropdown, and other utility icons.
- Result Grid:** Shows the query results in a table with one column, 'market'. The results are:

market
Australia
Bangladesh
India
Indonesia
Japan
Newzealand
Philippines
South Korea
- Footer:** Includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox.

2. What is the percentage of unique product increase in 2021 vs. 2020?

The screenshot shows a SQL IDE interface with a left-hand sidebar and a main query editor.

Left Sidebar:

- SCHEMAS:** A tree view showing the database structure. Under **gdb0041**, there are folders for **Tables**, **Views**, **Stored Procedures**, and **Functions**. Below these are other databases: **gdb023** and **gdb041**. At the bottom, there are tabs for **Administration** and **Schemas**.
- Information:** A section at the bottom of the sidebar showing **Schema: gdb0041**.

Main Query Editor:

The editor has tabs for **gdb0041**, **SQL File 2***, **SQL File 3***, and **SQL File 4***. The active tab is **SQL File 2***. The toolbar includes icons for file operations, a search icon, and a dropdown menu set to **Limit to 1000 rows**.

The SQL query is as follows:

```
1  /* What is the percentage of unique product increase in 2021 vs. 2020? */
2  WITH cte1 AS
3  (
4      SELECT
5          count(DISTINCT(CASE WHEN fy=2020 THEN product_code END)) AS unique_products_2020,
6          count(DISTINCT(CASE WHEN fy=2021 THEN product_code END)) AS unique_products_2021
7      FROM fact_sales_monthly
8  )
9  SELECT
10     unique_products_2020,
11     unique_products_2021,
12     concat(round(((unique_products_2021 - unique_products_2020) / unique_products_2020) * 100, 1), '%') as percentage_chg
13 FROM cte1;
```

Result Grid:

Below the query editor is a **Result Grid** tab. It includes a **Filter Rows** input field, an **Export** button, and a **Wrap Cell Content** checkbox. The grid displays the following data:

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.3%

3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

The screenshot shows a SQL IDE interface. On the left, the 'SCHEMAS' pane displays a tree view with 'gdb0041' selected. Below it, the 'Administration' and 'Schemas' tabs are visible. The main editor area shows a SQL query in 'SQL File 3*'. The query is as follows:

```
1  /* Provide a report with all the unique product counts for each segment and
2     sort them in descending order of product counts. */
3
4  •  SELECT
5         segment,
6         count(DISTINCT product_code) AS product_count
7  FROM dim_product
8  GROUP BY segment
9  ORDER BY product_count DESC;
```

Below the query editor, the 'Result Grid' tab is active, displaying the results of the query in a table format. The table has two columns: 'segment' and 'product_count'. The results are sorted in descending order of product count.

segment	product_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9

4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

The screenshot shows a SQL IDE interface. On the left, the 'SCHEMAS' panel displays a tree view with 'gdb0041' selected, showing its tables, views, stored procedures, and functions. Below this, the 'Administration' tab is active, showing 'Schema: gdb0041'. The main editor displays a SQL query with line numbers 1 through 16. The query uses a Common Table Expression (cte) to calculate the change in unique products for each segment between 2020 and 2021. The results are ordered by the change in descending order. At the bottom, the 'Result Grid' shows the output of the query, with columns for segment, product_count_2020, product_count_2021, and Change_. The results are as follows:

	segment	product_count_2020	product_count_2021	Change_
▶	Accessories	69	103	34
	Notebook	92	108	16
	Peripherals	59	75	16
	Desktop	7	22	15
	Storage	12	17	5
	Networking	6	9	3

5. Get the products that have the highest and lowest manufacturing costs.

SCHEMAS

Filter objects

gdb0041

Tables

Views

Stored Procedures

Functions

gdb023

gdb041

Administration Schemas

Information

Schema: **gdb0041**

Limit to 1000 rows

1 /* Get the products that have the highest and lowest manufacturing costs */

2 • SELECT

3 fm.product_code,

4 P.product,

5 round(fm.manufacturing_cost,2) AS manufacturing_cost

6 FROM fact_manufacturing_cost fm

7 JOIN dim_product AS P ON fm.product_code = P.product_code

8 WHERE manufacturing_cost = (SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost) OR

9 manufacturing_cost = (SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost)

10 ;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	product_code	product	manufacturing_cost
▶	A2118150101	AQ Master wired x1 Ms	0.87
	A6121110208	AQ HOME Allin1 Gen 2	263.42

6. Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market.

The screenshot shows a database management interface. On the left, the 'SCHEMAS' panel displays a tree view with 'gdb0041' selected. Below it, the 'Administration' tab is active, showing 'Schema: gdb0041'. The main area displays a SQL query in a text editor. The query is as follows:

```
1  /* Generate a report which contains the top 5 customers who received an
2  average high pre_invoice_discount_pct for the fiscal year 2021 and in the
3  Indian market. */
4  SELECT
5      pre.customer_code,
6      d.customer,
7      CONCAT(ROUND(AVG(pre.pre_invoice_discount_pct),2),'%') AS average_pre_invoice_discount_percentage
8  FROM fact_pre_invoice_deductions pre
9  JOIN dim_customer d ON pre.customer_code = d.customer_code
10 WHERE pre.fiscal_year=2021 AND d.market='India'
11 GROUP BY pre.customer_code, d.customer
12 ORDER BY average_pre_invoice_discount_percentage DESC
13 LIMIT 5;
```

Below the query editor, the 'Result Grid' tab is active, showing the results of the query. The results are displayed in a table with the following columns: customer_code, customer, and average_pre_invoice_discount_percentage. The table contains 5 rows of data.

customer_code	customer	average_pre_invoice_discount_percentage
90002009	Flipkart	0.31%
90002006	Viveks	0.30%
90002002	Croma	0.30%
90002003	Ezone	0.30%
90002016	Amazon	0.29%

7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions.

The screenshot displays a database management interface. On the left, the 'SCHEMAS' panel shows a tree view with 'gdb0041' selected, containing 'Tables', 'Views', 'Stored Procedures', and 'Functions'. Below this, the 'Administration' tab is active, showing 'Schema: gdb0041'. The main area shows a SQL query editor with the following code:

```
1  /* Get the complete report of the Gross sales amount for the customer "Atliq  
2  Exclusive" for each month. */  
3  •  SELECT  
4      monthname(fs.date) AS Month,  
5      year(fs.date) AS Year,  
6      concat(round(sum(fs.sold_quantity*fg.gross_price)/1000000,2),'m') AS 'Gross sales Amount'  
7  FROM fact_sales_monthly fs  
8  JOIN fact_gross_price fg ON fs.product_code=fg.product_code  
9  JOIN dim_customer d ON fs.customer_code=d.customer_code  
10 WHERE customer = 'Atliq Exclusive'  
11 GROUP BY Month, Year;
```

Below the query editor, the 'Result Grid' tab is active, showing a table with the following data:

Month	Year	Gross sales Amount
January	2021	37.70m
February	2021	30.85m
March	2021	36.97m
April	2021	22.15m
May	2021	37.04m
June	2021	29.89m
July	2021	36.68m
August	2021	21.84m
September	2021	153.60m
October	2021	159.24m
November	2021	259.11m
December	2021	161.73m

8. In which quarter of 2020, got the maximum total_sold_quantity?

The screenshot shows a database management interface. On the left, the 'SCHEMAS' panel displays a tree view with 'gdb0041' selected, showing its tables, views, stored procedures, and functions. Below this, the 'Administration' and 'Schemas' tabs are visible, and the 'Schema: gdb0041' is indicated.

The main area displays a SQL query in a text editor. The query is as follows:

```
1 SELECT
2     CASE WHEN DATE BETWEEN '2019-09-01' AND '2019-11-01' THEN 'Q1 - 2020'
3         WHEN DATE BETWEEN '2019-12-01' AND '2020-02-01' THEN 'Q2 - 2020'
4         WHEN DATE BETWEEN '2020-03-01' AND '2020-05-01' THEN 'Q3 - 2020'
5         WHEN DATE BETWEEN '2020-06-01' AND '2020-08-01' THEN 'Q4 - 2020' END AS Quarter,
6     sum(sold_quantity) AS Sold_Qty_Total
7 FROM fact_sales_monthly
8 WHERE fy = 2020
9 GROUP BY Quarter
10 ORDER BY Sold_Qty_Total DESC;
```

Below the query editor, the 'Result Grid' tab is active, showing the results of the query. The results are displayed in a table with two columns: 'Quarter' and 'Sold_Qty_Total'.

Quarter	Sold_Qty_Total
Q1 - 2020	7005619
Q2 - 2020	6649642
Q4 - 2020	5042541
Q3 - 2020	2075087

9.Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

The screenshot shows a SQL IDE interface. On the left, the 'SCHEMAS' panel displays a tree view with 'gdb0041' selected, containing 'Tables', 'Views', 'Stored Procedures', and 'Functions'. Below this, the 'Administration' tab is active, showing 'Schema: gdb0041'. The main editor displays a SQL query with line numbers 1 through 17. The query uses Common Table Expressions (CTEs) to calculate gross sales and their percentage contribution for the fiscal year 2021, ordered by percentage in descending order. The 'Result Grid' at the bottom shows the query results with columns 'channel', 'gross_sales_mln', and 'percentage'.

```
1  /* Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? */
2  •  WITH cte1 AS
3      ( SELECT C.channel, sum(GP.gross_price*SM.sold_quantity)/1000000 as gross_sales_mln
4        FROM fact_sales_monthly SM
5        JOIN fact_gross_price GP ON SM.product_code=GP.product_code
6        JOIN dim_customer C ON SM.customer_code=C.customer_code
7        WHERE SM.fy=2021 GROUP BY channel ) ,
8      cte2 AS
9      ( SELECT sum(GP.gross_price*SM.sold_quantity)/1000000 AS total
10        FROM fact_sales_monthly SM
11        JOIN fact_gross_price GP ON SM.product_code=GP.product_code
12        JOIN dim_customer C ON SM.customer_code=C.customer_code
13        WHERE SM.fy=2021 )
14  SELECT
15      cte1.channel, round(cte1.gross_sales_mln,2) AS gross_sales_mln,
16      concat(round((cte1.gross_sales_mln/cte2.total)*100,2),'%') AS percentage
17  FROM cte1 CROSS JOIN cte2 ORDER BY percentage DESC;
```

channel	gross_sales_mln	percentage
Retailer	3708.46	73.21%
Direct	784.14	15.48%
Distributor	572.86	11.31%

10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

SCHEMAS
Filter objects
gdb0041
Tables
Views
Stored Procedures
Functions
gdb023
gdb041
Administration Schemas
Information

Schema: **gdb0041**

Limit to 1000 rows

```
1 • WITH cte AS
2 ( SELECT P.division,P.product_code,P.product,
3      ROUND(sum(SM.sold_quantity)/1000,1) AS total_sold_quantity_in_thousands,
4      dense_rank() over(partition by P.division order by sum(SM.sold_quantity) desc) as rank_order
5 FROM dim_product P
6 JOIN fact_sales_monthly SM ON P.product_code=SM.product_code
7 WHERE SM.fy=2021
8 GROUP BY P.division, P.product_code,P.product
9 )
10 SELECT * FROM cte WHERE cte.rank_order<4;
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	division	product_code	product	total_sold_quantity	rank_order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1	701.4	1
	N & S	A6818160202	AQ Pen Drive DRC	688.0	2
	N & S	A6819160203	AQ Pen Drive DRC	676.2	3
	P & A	A2319150302	AQ Gamers Ms	428.5	1
	P & A	A2520150501	AQ Maxima Ms	419.9	2
	P & A	A2520150504	AQ Maxima Ms	419.5	3
	PC	A4218110202	AQ Digit	17.4	1
	PC	A4319110306	AQ Velocity	17.3	2
	PC	A4218110208	AQ Digit	17.3	3