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1
2 AD-HOC REQUEST 1
3 Objective: Provide the list of markets in which the customer "Atliq Exclusive" operates
  its business within the APAC region.
4
5
6 SELECT DISTINCT market
7 FROM dim_customer
8 WHERE customer="Atliq Exclusive"
9 AND region="APAC";
10
11 -----
12
13 AD-HOC REQUEST 2
14 Objective: Calculate the percentage increase in unique products from 2020 to 2021.
15 Output Fields: unique_products_2020, unique_products_2021, percentage_chg
16
17
18 WITH X AS (
19     SELECT COUNT(DISTINCT product_code) AS unique_products_2020
20     FROM fact_sales_monthly
21     WHERE fiscal_year = 2020
22 ),
23 Y AS (
24     SELECT COUNT(DISTINCT product_code) AS unique_products_2021
25     FROM fact_sales_monthly
26     WHERE fiscal_year = 2021
27 )
28 SELECT
29     X.unique_products_2020,
30     Y.unique_products_2021,
31     ROUND(((Y.unique_products_2021 - X.unique_products_2020) / X.unique_products_2020) *
32           100, 2) AS percentage_chg
33 FROM X, Y;
34
35 -----
36
37 AD-HOC REQUEST 3
38 Objective: Generate a report of unique product counts per segment, sorted in descending
  order of product counts.
39
40 Output Fields: segment, product_count
41
42 SELECT segment,
43 COUNT(DISTINCT(product_code)) AS product_count
44 FROM dim_product
45 GROUP BY segment
46 ORDER BY product_count DESC;
47
48 -----
49
50 AD-HOC REQUEST 4
51 Objective: Identify which segment had the most increase in unique products in 2021 vs
  2020.
52
53 Output Fields: segment, product_count_2020, product_count_2021, difference
54
55 WITH x AS (
56     SELECT p.segment,
57     COUNT(DISTINCT s.product_code) AS product_count_2020
58     FROM dim_product p
59     JOIN fact_sales_monthly s ON p.product_code = s.product_code
60     WHERE s.fiscal_year = 2020
61     GROUP BY p.segment
62 ),
63 y AS (
64     SELECT p.segment,
65     COUNT(DISTINCT s.product_code) AS product_count_2021
66     FROM dim_product p
67     JOIN fact_sales_monthly s ON p.product_code = s.product_code

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66         WHERE s.fiscal_year = 2021
67         GROUP BY p.segment
68     )
69     SELECT x.segment, product_count_2020, product_count_2021,
70     ABS(x.product_count_2020 - y.product_count_2021) AS difference
71     FROM x
72     JOIN y ON x.segment = y.segment
73     ORDER BY difference DESC;
74
75     -----
76
77     AD-HOC REQUEST 5
78     Objective: Retrieve products with the highest and lowest manufacturing costs.
79     Output Fields: product_code, product, manufacturing_cost
80
81     SELECT m.product_code, p.product, m.manufacturing_cost
82     FROM fact_manufacturing_cost m
83     JOIN dim_product p USING (product_code)
84     WHERE m.manufacturing_cost = (
85         SELECT MAX(manufacturing_cost)
86         FROM fact_manufacturing_cost
87     )
88     OR m.manufacturing_cost = (
89         SELECT MIN(manufacturing_cost)
90         FROM fact_manufacturing_cost
91     )
92     ORDER BY m.manufacturing_cost DESC;
93
94
95     -----
96
97     AD-HOC REQUEST 6
98     Objective: Generate a report of the top 5 customers in the Indian market who received
99     the highest average pre-invoice discount in fiscal year 2021.
100    Output Fields: customer_code, customer, average_discount_percentage
101
102    SELECT i.customer_code, c.customer,
103    ROUND(AVG(i.pre_invoice_discount_pct) * 100, 2) AS avg_dis_pct
104    FROM fact_pre_invoice_deductions i
105    JOIN dim_customer c USING (customer_code)
106    WHERE fiscal_year = 2021 AND c.market = "india"
107    GROUP BY i.customer_code, c.customer
108    ORDER BY avg_dis_pct DESC
109    LIMIT 5;
110
111    -----
112
113    AD-HOC REQUEST 7
114    Objective: Get the gross sales amount for "Atliq Exclusive" customer for each month.
115    This helps identify high and low-performing months.
116    Output Fields: Month, Year, Gross sales Amount
117
118    SELECT MONTHNAME(s.date) AS month, s.fiscal_year,
119    ROUND(SUM(g.gross_price * sold_quantity), 2) AS gross_sales_amt
120    FROM fact_sales_monthly s
121    JOIN dim_customer c USING (customer_code)
122    JOIN fact_gross_price g USING (product_code)
123    WHERE customer = "atliq exclusive"
124    GROUP BY MONTHNAME(s.date), s.fiscal_year
125    ORDER BY fiscal_year;
126
127    -----
128
129    AD-HOC REQUEST 8
130    Objective: Identify the quarter in 2020 that had the maximum total sold quantity.
131    Output Fields: Quarter, total_sold_quantity
132

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133 SELECT
134 CASE
135     WHEN MONTH(date) IN (9,10,11) THEN 'Q1'
136     WHEN MONTH(date) IN (12,1,2) THEN 'Q2'
137     WHEN MONTH(date) IN (3,4,5) THEN 'Q3'
138     ELSE 'Q4'
139 END AS Quarters,
140 SUM(sold_quantity) AS total_sold_qty
141 FROM fact_sales_monthly
142 WHERE fiscal_year = 2020
143 GROUP BY Quarters
144 ORDER BY total_sold_qty DESC;
145
146
147 -----

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149 AD-HOC REQUEST 8

150 Objective: Identify the quarter in 2020 that had the maximum total sold quantity.

151 Output Fields: Quarter, total_sold_quantity

```

152
153 SELECT
154 CASE
155     WHEN MONTH(date) IN (9,10,11) THEN 'Q1'
156     WHEN MONTH(date) IN (12,1,2) THEN 'Q2'
157     WHEN MONTH(date) IN (3,4,5) THEN 'Q3'
158     ELSE 'Q4'
159 END AS Quarters,
160 SUM(sold_quantity) AS total_sold_qty
161 FROM fact_sales_monthly
162 WHERE fiscal_year = 2020
163 GROUP BY Quarters
164 ORDER BY total_sold_qty DESC;
165
166
167 -----

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169 AD-HOC REQUEST 9

170 Objective: Identify which channel generated the most gross sales in fiscal year 2021 and its percentage contribution.

171 Output Fields: channel, gross_sales_mln, percentage

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172
173 WITH x AS (
174     SELECT c.channel,
175            ROUND(SUM(g.gross_price * s.sold_quantity) / 100000, 2) AS gross_sales_mln
176     FROM fact_sales_monthly s
177     JOIN dim_customer c USING (customer_code)
178     JOIN fact_gross_price g USING (product_code)
179     WHERE s.fiscal_year = 2021
180     GROUP BY c.channel
181 )
182 SELECT channel, gross_sales_mln,
183        ROUND((gross_sales_mln / (SELECT SUM(gross_sales_mln) FROM x)) * 100, 2) AS pct
184 FROM x
185 ORDER BY gross_sales_mln DESC;
186
187
188 -----

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190 AD-HOC REQUEST 10

191 Objective: Retrieve the Top 3 products by total sold quantity in each division for the fiscal year 2021.

192 Output Fields: division, product_code

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193
194 WITH x AS (
195     SELECT P.division, S.product_code, P.product,
196            SUM(S.sold_quantity) AS Total_sold_quantity,
197            RANK() OVER(PARTITION BY P.division ORDER BY SUM(S.sold_quantity) DESC) AS
198            'Rank_Order'
199 FROM dim_product P

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199         JOIN fact_sales_monthly S ON P.product_code = S.product_code
200         WHERE S.fiscal_year = 2021
201         GROUP BY P.division, S.product_code, P.product
202     )
203     SELECT * FROM x
204     WHERE Rank_Order IN (1,2,3)
205     ORDER BY division, Rank_Order;
206
```