

Assignment-7

BUAN 6320: Database Foundations for Business Analytics

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SOLUTION 1

The screenshot displays a database management tool interface. On the left, a 'SCHEMAS' pane shows a tree view with 'practice1' expanded, containing 'Tables', 'Views', 'Stored Procedures', and 'Functions'. The main area is titled 'Query 1' and contains the following SQL code:

```
34 (9, 7, 230);  
35  
36  
37 • SELECT u.name AS name, IFNULL(SUM(r.distance), 0) AS travelled_distance  
38 FROM Users u  
39 LEFT JOIN Rides r ON u.id = r.user_id  
40 GROUP BY u.id, u.name  
41 ORDER BY travelled_distance DESC, u.name ASC;  
42
```

Below the query, a 'Result Grid' shows the output of the query. The grid has two columns: 'name' and 'travelled_distance'. The data is as follows:

name	travelled_distance
Elvis	450
Lee	450
Bob	317
Jonathan	312
Alex	222
Alice	120
Donald	0

At the bottom, an 'Output' pane shows the execution log. It includes the following entries:

#	Time	Action	Message	Duration / Fetch
4	18:32:11	CREATE TABLE Rides (id INT PRIMARY KEY, user_id INT, distance INT)	0 row(s) affected	0.078 sec
5	18:32:16	INSERT INTO Rides (id, user_id, distance) VALUES (1, 1, 120), (2, 2, 317), (3, 3, 222), (4, 7, ...)	9 row(s) affected Records: 9 Duplicates: 0 Warnings: 0	0.016 sec
6	18:33:38	SELECT u.name AS name, IFNULL(SUM(r.distance), 0) AS travelled_distance FROM Users ...	7 row(s) returned	0.015 sec / 0.000 sec

SOLUTION 2

Navigator: SCHEMAS Filter objects practice1

Administration Schemas

Information

Table: product

Columns: product_id int PK product_name varchar(20)

Query 1 x

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

```
53 (5, 1000);
54
55 (SELECT '[0-5]' AS bin,
56 SUM(CASE WHEN duration/60 < 5 THEN 1 ELSE 0 END) AS total FROM Sessions)
57 UNION
58 (SELECT '[5-10]' AS bin,
59 SUM(CASE WHEN ((duration/60 >= 5) AND (duration/60 < 10)) THEN 1 ELSE 0 END) AS total FROM Sessions)
60 UNION
61 (SELECT '[10-15]' AS bin,
```

Result Grid

bin	total
[0-5]	3
[5-10]	1
[10-15]	0
15 or more	1

Result 18 x

Output

#	Time	Action	Message	Duration / Fetch
49	19:15:47	SELECT CASE WHEN duration < 300 THEN '[0-5]' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
50	19:17:46	SELECT CASE WHEN duration < 300 THEN '[0-5]' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
51	19:56:48	(SELECT '[0-5]' AS bin, SUM(CASE WHEN duration/60 < 5 THEN 1 ELSE 0 END) AS total...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Navigator: SCHEMAS Filter objects practice1

Administration Schemas

Information

Table: product

Columns: product_id int PK product_name varchar(20)

Query 1 x

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

```
57 UNION
58 (SELECT '[5-10]' AS bin,
59 SUM(CASE WHEN ((duration/60 >= 5) AND (duration/60 < 10)) THEN 1 ELSE 0 END) AS total FROM Sessions)
60 UNION
61 (SELECT '[10-15]' AS bin,
62 SUM(CASE WHEN ((duration/60 >= 10) AND (duration/60 < 15)) THEN 1 ELSE 0 END) AS total FROM Sessions)
63 UNION
64 (SELECT '15 or more' AS bin,
65 SUM(CASE WHEN duration/60 >= 15 THEN 1 ELSE 0 END) AS total FROM Sessions);
```

Result Grid

bin	total
[0-5]	3
[5-10]	1
[10-15]	0
15 or more	1

Result 18 x

Output

#	Time	Action	Message	Duration / Fetch
49	19:15:47	SELECT CASE WHEN duration < 300 THEN '[0-5]' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
50	19:17:46	SELECT CASE WHEN duration < 300 THEN '[0-5]' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
51	19:56:48	(SELECT '[0-5]' AS bin, SUM(CASE WHEN duration/60 < 5 THEN 1 ELSE 0 END) AS total...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Navigator: SCHEMAS
Filter objects
practice1

Administration Schemas

Information

Table: product
Columns:
product_id int PK
product_name varchar(20)

Query 1 x

```

60 UNION
61 (SELECT '10-15' AS bin,
62 SUM(CASE WHEN ((duration/60 >= 10) AND (duration/60 < 15)) THEN 1 ELSE 0 END) AS total FROM Sessions)
63 UNION
64 (SELECT '15 or more' AS bin,
65 SUM(CASE WHEN duration/60 >= 15 THEN 1 ELSE 0 END) AS total FROM Sessions);
66
67
68

```

Result Grid

bin	total
[0-5>	3
[5-10>	1
[10-15>	0
15 or more	1

Result 18 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
49	19:15:47	SELECT CASE WHEN duration < 300 THEN '0-5>' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
50	19:17:46	SELECT CASE WHEN duration < 300 THEN '0-5>' WHEN duration < 600 TH...	3 row(s) returned	0.000 sec / 0.000 sec
51	19:56:48	(SELECT '0-5>' AS bin, SUM(CASE WHEN duration/60 < 5 THEN 1 ELSE 0 END) AS total...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SOLUTION 3

Navigator: SCHEMAS
Filter objects
practice1
Tables
Views
Stored Procedures
Functions

Administration Schemas

Information

Schema: practice1

Query 1 x

```

79 ('2020-06-01', 'Bible'),
80 ('2020-06-02', 'Mask'),
81 ('2020-05-30', 'T-Shirt');
82
83
84 SELECT sell_date, COUNT(DISTINCT product) AS num_sold, GROUP_CONCAT(DISTINCT product ORDER BY product ASC) AS products
85 FROM Activities
86 GROUP BY sell_date
87 ORDER BY sell_date ASC;

```

Result Grid

sell_date	num_sold	products
2020-05-30	3	Basketball,Headphone,T-Shirt
2020-06-01	2	Bible,Pencil
2020-06-02	1	Mask

Result 8 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
16	18:52:21	INSERT INTO Activities (sell_date, product) VALUES ('2020-05-30', 'Headphone').	(202... 7 row(s) affected Records: 7 Duplicates: 0 Warnings: 0	0.000 sec
17	18:53:15	SELECT sell_date, COUNT(DISTINCT product) AS num_sold, GROUP_CONCAT(product O...	3 row(s) returned	0.016 sec / 0.000 sec
18	18:54:28	SELECT sell_date, COUNT(DISTINCT product) AS num_sold, GROUP_CONCAT(DISTINC...	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SOLUTION 4

Navigator: SCHEMAS
Filter objects
answer4
Tables
Views
Stored Procedures
Functions
practice1
Administration Schemas
Information

Query 1 SQL File 1*
Don't Limit

```

47
48 SELECT o.customer_id, name
49 FROM orders o
50 JOIN Product p
51 ON o.product_id = p.product_id
52 JOIN Customers c
53 ON o.customer_id = c.customer_id
54 GROUP BY 1, 2
55 HAVING SUM(CASE WHEN date_format(order_date, '%Y-%m')='2020-06'

```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

customer_id	name
1	Winston

Result 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
57	20:06:19	CREATE TABLE Orders (order_id INT PRIMARY KEY, customer_id INT, product_id ...	0 row(s) affected	0.078 sec
58	20:06:24	INSERT INTO Orders (order_id, customer_id, product_id, order_date, quantity) VALUES (1, ...	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0	0.015 sec
59	20:07:19	SELECT o.customer_id, name FROM orders o JOIN Product p ON o.product_id = p.product_...	1 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

Navigator: SCHEMAS
Filter objects
answer4
Tables
Views
Stored Procedures
Functions
practice1
Administration Schemas
Information

Query 1 SQL File 1*
Don't Limit

```

52 JOIN Customers c
53 ON o.customer_id = c.customer_id
54 GROUP BY 1, 2
55 HAVING SUM(CASE WHEN date_format(order_date, '%Y-%m')='2020-06'
56 THEN price*quantity END) >= 100
57 AND
58 SUM(CASE WHEN date_format(order_date, '%Y-%m')='2020-07'
59 THEN price*quantity END) >= 100;
60

```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

customer_id	name
1	Winston

Result 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
57	20:06:19	CREATE TABLE Orders (order_id INT PRIMARY KEY, customer_id INT, product_id ...	0 row(s) affected	0.078 sec
58	20:06:24	INSERT INTO Orders (order_id, customer_id, product_id, order_date, quantity) VALUES (1, ...	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0	0.015 sec
59	20:07:19	SELECT o.customer_id, name FROM orders o JOIN Product p ON o.product_id = p.product_...	1 row(s) returned	0.016 sec / 0.000 sec

Object Info Session