

DBMS PRACTICAL NO.: 07

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Experiment No 07: Write Queries using Arithmetic operators.

EXERCISE:

1. Consider the following schema Orders(cust_id, order_id, items, amount)

Write queries for the following:

- Display new column named total_amount which is 200 added to the amount field.
- Display new column named offer_price which is 100 subtracted from the amount field.
- Display new column named revised_amount which is multiplied by 5 times the amount field.
- Display new column named half_amount which is divided by 2 to the amount field.

1) Display new column named total_amount which is 200 added to the amount field.

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with a filter 'Filter objects'. The 'pr7' database is selected, showing its 'Tables' (orders), 'Columns' (cust_id, order_id, items, amount), 'Indexes', 'Foreign Keys', 'Triggers', 'Views', 'Stored Procedures', and 'Functions'. The main editor window shows a 'Microproject SQL script' with two queries:
64 -- step 1
65 • Select cust_id, order_id, items, amount, amount + 200 as total_amount
66 From Orders;
67
68 -- step 2
69 • Select cust_id, order_id, items, amount, amount - 100 as offer_price
70 From Orders;
71
The 'Result Grid' at the bottom shows the results of the first query, displaying columns: cust_id, order_id, items, amount, and total_amount. The data rows are as follows:

cust_id	order_id	items	amount	total_amount
1	101	Pancake, Cream Roll	500.00	700.00
2	102	Birthday Cake, Chocolate Muffin	750.00	950.00
3	103	Anniversary Cake, Vanilla Cupcake	600.00	800.00
4	104	Brownie, Strawberry Shortcake	450.00	650.00
5	105	Cheese Puff, Fruit Tart	550.00	750.00
6	106	Pineapple Pastry, Chocolate Cake	800.00	1000.00
7	107	Mango Mousse, Almond Biscotti	650.00	850.00
8	108	Black Forest Cake, Cookies	700.00	900.00
9	109	Tiramisu, Coconut Ladoo	560.00	760.00

Result Grid					
Filter Rows: <input type="text"/>					
Export:					
Wrap Cell Content:					
	cust_id	order_id	items	amount	total_amount
▶	1	101	Pancake, Cream Roll	500.00	700.00
	2	102	Birthday Cake, Chocolate Muffin	750.00	950.00
	3	103	Anniversary Cake, Vanilla Cupcake	600.00	800.00
	4	104	Brownie, Strawberry Shortcake	450.00	650.00
	5	105	Cheese Puff, Fruit Tart	550.00	750.00
	6	106	Pineapple Pastry, Chocolate Cake	800.00	1000.00
	7	107	Mango Mousse, Almond Biscotti	650.00	850.00
	8	108	Black Forest Cake, Cookies	700.00	900.00
	9	109	Tiramisu, Coconut Ladoo	560.00	760.00

Result 6 x

Output

Action Output

#	Time	Action	Message
✓	50 13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (47, 147, 'Patties, Cup Cakes', 650)	1 row(s) affected
✓	51 13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (48, 148, 'Choco Hazelnut Tart, Milky Way', ...	1 row(s) affected
✓	52 13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (49, 149, 'Almond Cake, Butterscotch Cake', ...	1 row(s) affected
✓	53 13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	1 row(s) affected
✗	54 13:06:05	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	Error Code: 1062. Duplicate entry '50' for key '1
✓	55 13:06:27	Select cust_id, order_id, items, amount, amount + 200 as total_amount From Orders LIMIT 0, 1000	50 row(s) returned

2) Display new column named *offer_price* which is 100 subtracted from the amount field.

MySQL Workbench

Local instance MYSQL80 x unconnected x

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Navigator: Microproject SQL script practical 7 x practical 8 practical 4 practical 9 practical 10

SCHEMAS

Filter objects

- ems_db
 - pr10
 - pr5
 - pr6
 - pr7
 - Tables
 - orders
 - Columns
 - cust_id
 - order_id
 - items
 - amount
 - Indexes
 - Foreign Keys
 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - pr9
 - pr8
 - sakila

Administration Schemas

Information

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68 -- step 2

69 • Select cust_id, order_id, items, amount, amount - 100 as offer_price

70 From Orders;

71

72 -- step 3

73 • Select cust_id, order_id, items, amount, amount * 5 as revised_amount

74 From Orders;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	cust_id	order_id	items	amount	offer_price
▶	1	101	Pancake, Cream Roll	500.00	400.00
	2	102	Birthday Cake, Chocolate Muffin	750.00	650.00
	3	103	Anniversary Cake, Vanilla Cupcake	600.00	500.00
	4	104	Brownie, Strawberry Shortcake	450.00	350.00
	5	105	Cheese Puff, Fruit Tart	550.00	450.00
	6	106	Pineapple Pastry, Chocolate Cake	800.00	700.00
	7	107	Mango Mousse, Almond Biscotti	650.00	550.00
	8	108	Black Forest Cake, Cookies	700.00	600.00
	9	109	Tiramisu, Coconut Ladoo	560.00	460.00

Result 7 x

Result Grid					Filter Rows:	Export:	Wrap Cell Content:
cust_id	order_id	items	amount	offer_price			
1	101	Pancake, Cream Roll	500.00	400.00			
2	102	Birthday Cake, Chocolate Muffin	750.00	650.00			
3	103	Anniversary Cake, Vanilla Cupcake	600.00	500.00			
4	104	Brownie, Strawberry Shortcake	450.00	350.00			
5	105	Cheese Puff, Fruit Tart	550.00	450.00			
6	106	Pineapple Pastry, Chocolate Cake	800.00	700.00			
7	107	Mango Mousse, Almond Biscotti	650.00	550.00			
8	108	Black Forest Cake, Cookies	700.00	600.00			
9	109	Tiramisu, Coconut Ladoo	560.00	460.00			

Result 7 x

Output:

#	Time	Action	Message
✓ 51	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (48, 148, 'Choco Hazelnut Tart, Milky Way', ...	1 row(s) affected
✓ 52	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (49, 149, 'Almond Cake, Butterscotch Cake', ...	1 row(s) affected
✓ 53	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	1 row(s) affected
✗ 54	13:06:05	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	Error Code: 1062. Duplicate entry '50' for key 'orders.PRIMARY'
✓ 55	13:06:27	Select cust_id, order_id, items, amount, amount + 200 as total_amount From Orders LIMIT 0, 1000	50 row(s) returned
✓ 56	13:07:28	Select cust_id, order_id, items, amount, amount - 100 as offer_price From Orders LIMIT 0, 1000	50 row(s) returned

3) Display new column named revised_amount which is multiplied by 5 times the amount field.

MySQL Workbench

Local instance MYSQL80 x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator: Microproject SQL script practical 7 x practical 8 practical 4 practical 9 practical 10

SCHEMAS

Filter objects

- ems_db
- pr10
- pr5
- pr6
- pr7**
 - Tables
 - orders
 - Columns
 - cust_id
 - order_id
 - items
 - amount
 - Indexes
 - Foreign Keys
 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - pr9
 - pr8
 - sakila

Administration Schemas

Information

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71
72  -- step 3
73 • Select cust_id, order_id, items, amount, amount * 5 as revised_amount
74 From Orders;
75
76  -- step 4
77 • Select cust_id, order_id, items, amount, amount / 2 as half_amount
78 From Orders;

```

Result Grid

cust_id	order_id	items	amount	revised_amount
1	101	Pancake, Cream Roll	500.00	2500.00
2	102	Birthday Cake, Chocolate Muffin	750.00	3750.00
3	103	Anniversary Cake, Vanilla Cupcake	600.00	3000.00
4	104	Brownie, Strawberry Shortcake	450.00	2250.00
5	105	Cheese Puff, Fruit Tart	550.00	2750.00
6	106	Pineapple Pastry, Chocolate Cake	800.00	4000.00
7	107	Mango Mousse, Almond Biscotti	650.00	3250.00
8	108	Black Forest Cake, Cookies	700.00	3500.00
9	109	Tiramisu, Coconut Ladoo	560.00	2800.00

Result 8 x

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	cust_id	order_id	items	amount	revised_amount
▶	1	101	Pancake, Cream Roll	500.00	2500.00
	2	102	Birthday Cake, Chocolate Muffin	750.00	3750.00
	3	103	Anniversary Cake, Vanilla Cupcake	600.00	3000.00
	4	104	Brownie, Strawberry Shortcake	450.00	2250.00
	5	105	Cheese Puff, Fruit Tart	550.00	2750.00
	6	106	Pineapple Pastry, Chocolate Cake	800.00	4000.00
	7	107	Mango Mousse, Almond Biscotti	650.00	3250.00
	8	108	Black Forest Cake, Cookies	700.00	3500.00
	9	109	Tiramisu, Coconut Ladoo	560.00	2800.00

Result 8

×

Output

Action Output

#	Time	Action	Message
✓	52	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (49, 149, 'Almond Cake, Butterscotch Cake', ...
✓	53	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...
✗	54	13:06:05	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol... Error Code: 1062. Duplicate entry '50' for key 'orders.PRIMARY'
✓	55	13:06:27	Select cust_id, order_id, items, amount, amount + 200 as total_amount From Orders LIMIT 0, 1000
✓	56	13:07:28	Select cust_id, order_id, items, amount, amount - 100 as offer_price From Orders LIMIT 0, 1000
✓	57	13:09:48	Select cust_id, order_id, items, amount, amount * 5 as revised_amount From Orders LIMIT 0, 1000

4) Display new column named *half_amount* which is divided by 2 to the amount field.

MySQL Workbench

Local instance MYSQL80 × unconnected ×

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

- ems_db
- pr10
- pr5
- pr6
- pr7**
 - Tables
 - orders
 - Columns
 - cust_id
 - order_id
 - items
 - amount
 - Indexes
 - Foreign Keys
 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - pr8
 - pr9
 - sakila

Administration Schemas

Information

Microproject SQL script practical 7* × practical 8 practical 4 practical 9 practical 10

73 • Select cust_id, order_id, items, amount, amount * 5 as revised_amount

74 From Orders;

75

76 -- step 4

77 • Select cust_id, order_id, items, amount, amount / 2 as half_amount

78 From Orders;

79

80

Result Grid

	cust_id	order_id	items	amount	half_amount
▶	1	101	Pancake, Cream Roll	500.00	250.000000
	2	102	Birthday Cake, Chocolate Muffin	750.00	375.000000
	3	103	Anniversary Cake, Vanilla Cupcake	600.00	300.000000
	4	104	Brownie, Strawberry Shortcake	450.00	225.000000
	5	105	Cheese Puff, Fruit Tart	550.00	275.000000
	6	106	Pineapple Pastry, Chocolate Cake	800.00	400.000000
	7	107	Mango Mousse, Almond Biscotti	650.00	325.000000
	8	108	Black Forest Cake, Cookies	700.00	350.000000
	9	109	Tiramisu, Coconut Ladoo	560.00	280.000000

Result 9 ×



Output

Result Grid   Filter Rows: Export:  Wrap Cell Content: 

	cust_id	order_id	items	amount	half_amount
▶	1	101	Pancake, Cream Roll	500.00	250.000000
	2	102	Birthday Cake, Chocolate Muffin	750.00	375.000000
	3	103	Anniversary Cake, Vanilla Cupcake	600.00	300.000000
	4	104	Brownie, Strawberry Shortcake	450.00	225.000000
	5	105	Cheese Puff, Fruit Tart	550.00	275.000000
	6	106	Pineapple Pastry, Chocolate Cake	800.00	400.000000
	7	107	Mango Mousse, Almond Biscotti	650.00	325.000000
	8	108	Black Forest Cake, Cookies	700.00	350.000000
	9	109	Tiramisu, Coconut Ladoo	560.00	280.000000

Result 9 

Output

 Action Output 

	#	Time	Action	Message
✓	53	13:05:29	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	1 row(s) affected
✗	54	13:06:05	INSERT INTO Orders (cust_id, order_id, items, amount) VALUES (50, 150, 'Paneer Tikka Puff, Eggless Chocol...	Error Code: 1062. Duplicate entry '50' for key 'orders.PRIMARY'
✓	55	13:06:27	Select cust_id, order_id, items, amount, amount + 200 as total_amount From Orders LIMIT 0, 1000	50 row(s) returned
✓	56	13:07:28	Select cust_id, order_id, items, amount, amount - 100 as offer_price From Orders LIMIT 0, 1000	50 row(s) returned
✓	57	13:09:48	Select cust_id, order_id, items, amount, amount * 5 as revised_amount From Orders LIMIT 0, 1000	50 row(s) returned
✓	58	13:11:16	Select cust_id, order_id, items, amount, amount / 2 as half_amount From Orders LIMIT 0, 1000	50 row(s) returned