

QUESTION 1

Retrieve all customers who have placed at least one order

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

Filter objects

SCHEMAS

- company_db
 - Tables
 - course
 - customers
 - employees
 - orders
 - payments
 - team_india
 - Views
 - Stored Procedures
 - Functions
- company_md
 - employee
 - mitesh
 - orders
 - pw_skills
 - pwskills
 - sakila
 - sys
 - world

Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3*

Don't Limit

```
139 ('3','Carol Ray','1'),
140 ('4','David Kim','2'),
141 ('5','Eva Smith','2');
142
143 • select * from employees;
144
145 ## question 1 Retrieve all customers who have placed at least one order.
146 • SELECT DISTINCT c.*
147 FROM customers c
148 INNER JOIN orders o
149 ON c.customer_id = o.customer_id;
```

Result Grid

customer_id	customer_name	city
1	John Smith	New York
2	Mary Johnson	Chicago
3	Peter Adams	Los Angeles

Result 31 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
81	20:57:37	select * from employees	5 row(s) returned	0.000 sec / 0.000 sec
82	21:19:52	select * from orders	5 row(s) returned	0.000 sec / 0.000 sec
83	21:25:47	SELECT DISTINCT c.* FROM customers c INNER JOIN orders o ON c.customer_id = o.customer_id	3 row(s) returned	0.000 sec / 0.000 sec

QUESTION 2

Retrieve all customers and their orders, including customers who have not placed any orders

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

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Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3*

154

155 • SELECT

156 c.customer_ID,

157 c.customer_Name,

158 o.order_ID,

159 o.order_dates,

160 o.amount

161 FROM customers c

162 LEFT JOIN orders o

163 ON c.customer_ID = o.customer_ID;

164

Result Grid

	customer_ID	customer_Name	order_ID	order_dates	amount
1	John Smith	103	2024-10-07	150	
1	John Smith	101	2024-10-01	250	
2	Mary Johnson	102	2024-10-05	300	
3	Peter Adams	104	2024-10-10	450	
4	Nancy Milar				
5	Robert white				

Result 41 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
104	22:09:37	SELECT c.customer_ID, c.customer_Name, o.order_ID, order_date, o.amount FROM custom...	Error Code: 1054. Unknown column 'order_date' in field list	0.000 sec
105	22:09:47	select * from orders	5 row(s) returned	0.000 sec / 0.000 sec
106	22:10:15	SELECT c.customer_ID, c.customer_Name, o.order_ID, o.order_dates, o.amount FROM cust...	6 row(s) returned	0.000 sec / 0.000 sec

QUESTION 3

Retrieve all orders and their corresponding customers, including orders placed by unknown customers.

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company_db

- Tables
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- pwskills
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- sys
- world

Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3 x

Don't Limit

```
167
168 • SELECT
169     o.order_id,
170     o.order_dates,
171     o.amount,
172     c.customer_id,
173     c.customer_name
174 FROM customers c
175 RIGHT JOIN orders o
176 ON c.customer_id = o.customer_id;
177
```

Result Grid

order_id	order_dates	amount	customer_id	customer_name
101	2024-10-01	250	1	John Smith
102	2024-10-05	300	2	Mary Johnson
103	2024-10-07	150	1	John Smith
104	2024-10-10	450	3	Peter Adams
105	2024-10-12	400	NULL	NULL

Result 42 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
105	22:09:47	select * from orders	5 row(s) returned	0.000 sec / 0.000 sec
106	22:10:15	SELECT c.customer_ID, c.customer_Name, o.order_ID, o.order_dates, o.amount FROM cust...	6 row(s) returned	0.000 sec / 0.000 sec
107	22:14:57	SELECT o.order_id, o.order_dates, o.amount, c.customer_id, c.customer_name FROM custom...	5 row(s) returned	0.000 sec / 0.000 sec

QUESTION 4

Display all customers and orders, whether matched or not

ANSWER

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'Schemas' tree with 'company_db' expanded, showing tables like 'customers', 'orders', and 'payments'. The main editor window shows a SQL query for 'Assignment no 2':

```
191 UNION
192
193 SELECT
194     c.customer_id,
195     c.customer_name,
196     o.order_id,
197     o.order_dates,
198     o.amount
199 FROM customers c
200 RIGHT JOIN orders o
201 ON c.customer_id = o.customer_id;
```

Below the query, the 'Result Grid' shows 5 rows of data:

customer_id	customer_name	order_id	order_dates	amount
1	John Smith	103	2024-10-07	150
1	John Smith	101	2024-10-01	250
2	Mary Johnson	102	2024-10-05	300
3	Peter Adams	104	2024-10-10	450
4	Nancy Milar	105	2024-10-12	400

The bottom panel shows the 'Output' tab with 'Action Output' selected. It displays three messages:

#	Time	Action	Message	Duration / Fetch
107	22:14:57	SELECT	o.order_id, o.order_dates, o.amount, c.customer_id, c.customer_name FROM custom...	5 row(s) returned 0.000 sec / 0.000 sec
108	22:19:58	SELECT	c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	Error Code: 1146. Table 'company_db.fullouter' doesn't exist 0.000 sec
109	22:21:08	SELECT	c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	7 row(s) returned 0.015 sec / 0.000 sec

QUESTION 5

Find customers who have not placed any orders.

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

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Navigator

SCHMAS

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- sys
- world

Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3

```
199 FROM customers c
200 RIGHT JOIN orders o
201 ON c.customer_id = o.customer_id;
202
203 ## question 5
204 • SELECT c.*
205 FROM customers c
206 LEFT JOIN orders o
207 ON c.customer_id = o.customer_id
208 WHERE o.customer_id IS NULL;
209
```

Result Grid

customer_id	customer_name	city
4	Nancy Milar	Houston
5	Robert white	Miami

Result 44 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
108	22:19:58	SELECT c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	Error Code: 1146. Table 'company_db.fullouter' doesn't exist	0.000 sec
109	22:21:08	SELECT c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	7 row(s) returned	0.015 sec / 0.000 sec
110	22:25:18	SELECT c.* FROM customers c LEFT JOIN orders o ON c.customer_id = o.customer_id WHERE o custom...	2 row(s) returned	0.015 sec / 0.000 sec

QUESTION 6

Retrieve customers who made payments but did not place any orders

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

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 - sakila
 - sys
 - world

Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assingment no 2 SQL Assingment no 3

213 WHERE EXISTS (
214 SELECT 1
215 FROM payments p
216 WHERE p.customer_id = c.customer_id
217)
218 AND NOT EXISTS (
219 SELECT 1
220 FROM orders o
221 WHERE o.customer_id = c.customer_id
222);
223

Result Grid

	customer_id	customer_name	city
▶ 4	4	Nancy Milar	Houston

customers 45 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 109	22:21:08	SELECT c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	7 row(s) returned	0.015 sec / 0.000 sec
✓ 110	22:25:18	SELECT c.* FROM customers c LEFT JOIN orders o ON c.customer_id = o.customer_id WHERE o.custom...	2 row(s) returned	0.015 sec / 0.000 sec
✓ 111	22:28:36	SELECT c.* FROM customers c WHERE EXISTS (SELECT 1 FROM payments p WHERE p.custo...	1 row(s) returned	0.000 sec / 0.000 sec

QUESTION 7

Generate a list of all possible combinations between Customers and Orders.

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

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- pwskills
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- sys
- world

Administration Schemas

Information: No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3

224 ## question 7

225

226 • SELECT

227 c.customer_id,

228 c.customer_name,

229 o.order_id,

230 o.order_dates,

231 o.amount

232 FROM customers c

233 CROSS JOIN orders o;

234

235

236

Result Grid

customer_id	customer_name	order_id	order_dates	amount
5	Robert white	101	2024-10-01	250
4	Nancy Milar	101	2024-10-01	250
3	Peter Adams	101	2024-10-01	250
2	Mary Johnson	101	2024-10-01	250
1	John Smith	101	2024-10-01	250
5	Robert white	102	2024-10-05	300
4	Nancy Milar	102	2024-10-05	300

Result 46 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
110	22:25:18	SELECT c.* FROM customers c LEFT JOIN orders o ON c.customer_id = o.customer_id WHERE o custom...	2 row(s) returned	0.015 sec / 0.000 sec
111	22:28:36	SELECT c.* FROM customers c WHERE EXISTS (SELECT 1 FROM payments p WHERE p custo...	1 row(s) returned	0.000 sec / 0.000 sec
112	22:30:59	SELECT c.customer_id, c.customer_name, o.order_id, o.order_dates, o.amount FROM custom...	25 row(s) returned	0.016 sec / 0.000 sec

QUESTION 8		Show all customers along with order and payment amounts in one table				
ANSWER						

QUESTION 9

Retrieve all customers who have both placed orders and made payments

ANSWER

MySQL Workbench

pw_skills_DA_Batch x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

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Tables

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- team_india

Views

Stored Procedures

Functions

company_md

- employee
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- sakila
- sys
- world

Administration Schemas

Information

No object selected

Object Info Session

Query Completed

Assignment no 2 SQL Assignment no 3*

235 ## question 8

236 SELECT c.*

237 FROM customers c

238 WHERE EXISTS (

239 SELECT 1

240 FROM orders o

241 WHERE o.customer_id = c.customer_id

242)

243 AND EXISTS (

244 SELECT 1

245 FROM payments p

246 WHERE p.customer_id = c.customer_id

247);

Result Grid

Filter Rows:

Exports: Wrap Cell Contents

	customer_id	customer_name	city
1	John Smith	New York	
2	Mary Johnson	Chicago	
3	Peter Adams	Los Angeles	

customers 50 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
132	23:00:40	SELECT c.customer_id, c.customer_name, SUM(order_amount) AS total_order_amount, SUM(p...	Error Code: 1054. Unknown column 'order_amount' in 'field list'	0.000 sec
133	23:02:11	SELECT c.customer_id, c.customer_name, o.order_amount, p.payment_amount FROM customers...	Error Code: 1054. Unknown column 'o.order_amount' in 'field list'	0.000 sec
134	23:04:22	SELECT c.* FROM customers c WHERE EXISTS (SELECT 1 FROM orders o WHERE o.customer...	3 row(s) returned	0.016 sec / 0.000 sec