

ASINGMENT NO - 2 FILTERING

Note : Create the following dummy table in MySQL Workbench using CREATE FUNCTION-

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'company_db' selected. The main editor shows a query with the following SQL code:

```
49 values
50 (108,'Simran Kaur','Finance','Mumbai','58000','2021-08-03');
51 • select * from employees;
52
53 • insert into employees
54 values
55 (109,'Arjun Reddy','IT','Hyderabad','70000','2022-02-18');
56 • select * from employees;
```

The 'Result Grid' shows the following data:

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
101	Rahul Mehra	Sales	Delhi	55000	2020-04-12
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
103	Aman Singh	IT	bengaluru	72000	2021-03-10
104	Neha Patel	Sales	Delhi	58000	2022-01-14
105	Karan Joshi	Marketing	Pune	45000	2018-07-14
106	Divya Nair	IT	Chennai	81000	2019-12-11
107	Raj Kumar	HR	Delhi	60000	2020-05-28
108	Simran Kaur	Finance	Mumbai	58000	2021-08-03
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18
110	Anjali Das	Sales	Kolkata	51000	2023-01-15

The bottom panel shows the 'Output' tab with the following data:

#	Time	Action	Message	Duration / Fetch
19	23:26:39	select * from employees	8 row(s) returned	0.000 sec / 0.000 sec
20	23:28:52	insert into employees values (109,'Arjun Reddy','IT','Hyderabad','70000','2022-02-18')	1 row(s) affected	0.000 sec
21	23:29:00	select * from employees	9 row(s) returned	0.000 sec / 0.000 sec
22	23:30:44	insert into employees values (110,'Anjali Das','Sales','Kolkata','51000','2023-01-15')	1 row(s) affected	0.016 sec
23	23:30:56	select * from employees	10 row(s) returned	0.000 sec / 0.000 sec

QUESTION 1

: Show employees working in either the 'IT' or 'HR' departments.

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company_db

- Tables
- Views
- Stored Procedures
- Functions

company_md

- employee
- mitesh
- orders
- pw_skills
- pwskills
- sakila
- sys
- world

Assignment no 2 SQL*

```
53 • insert into employees
54 values
55 (109,'Arjun Reddy','IT','Hyderabad','70000','2022-02-18');
56 • select * from employees;
57
58 • insert into employees
59 values
60 (110,'Anjali Das','Sales','Kolkata','51000','2023-01-15');
61 • select * from employees;
62
63 • select * from employees
64 where department in ('IT','HR');
65 • select * from employees
66
67
```

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
103	Aman Singh	IT	bengaluru	72000	2021-03-10
106	Divya Nair	IT	Chennai	81000	2019-12-11
107	Raj Kumar	HR	Delhi	60000	2020-05-28
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18

employees 12 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	23:28:52	insert into employees values (109,'Arjun Reddy','IT','Hyderabad','70000','2022-02-18')	1 row(s) affected	0.000 sec
21	23:29:00	select * from employees	9 row(s) returned	0.000 sec / 0.000 sec
22	23:30:44	insert into employees values (110,'Anjali Das','Sales','Kolkata','51000','2023-01-15')	1 row(s) affected	0.016 sec
23	23:30:56	select * from employees	10 row(s) returned	0.000 sec / 0.000 sec
24	23:54:01	select * from employees where department in ('IT','HR')	5 row(s) returned	0.000 sec / 0.000 sec

Administration Schemas

Information

Schema: company_db

Object Info Session

QUESTION 2

Retrieve employees whose department is in 'Sales', 'IT', or 'Finance'.

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company_db

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- mitesh
- orders
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- pwskills
- sakila
- sys
- world

Assignment no 2 SQL*

```
62
63 ## QUESTION NO 1
64 • select * from employees
65 where department in ('IT','HR');
66 • select * from employees;
67
68 ## QUESTION NO 2
69 • SELECT *FROM employees
70 WHERE department IN ('Sales', 'IT', 'Finance');
71
72
73
```

Result Grid

Emp_Id	Emp_Name	Department	City	Salary	Hire_Date
101	Rahul Mehra	Sales	Delhi	55000	2020-04-12
103	Aman Singh	IT	bengaluru	72000	2021-03-10
104	Neha Patel	Sales	Delhi	48000	2022-01-14
106	Divya Nair	IT	Chennai	81000	2019-12-11
108	Simran Kaur	Finance	Mumbai	58000	2021-08-03
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18
110	Anjali Das	Sales	Kolkata	51000	2023-01-15

employees 14 x

Output

#	Time	Action	Message	Duration / Fetch
✓ 22	23:30:44	insert into employees values (110,'Anjali Das','Sales','Kolkata','51000','2023-01-15')	1 row(s) affected	0.016 sec
✓ 23	23:30:56	select * from employees	10 row(s) returned	0.000 sec / 0.000 sec
✓ 24	23:54:01	select * from employees where department in ('IT','HR')	5 row(s) returned	0.000 sec / 0.000 sec
✓ 25	23:59:02	select * from employees	10 row(s) returned	0.000 sec / 0.000 sec
✓ 26	00:00:25	SELECT *FROM employees WHERE department IN ('Sales', 'IT', 'Finance')	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Schema: company_db

Information:

Administration Schemas

Form Editor

Field Types

Read Only

QUESTION 3

Display employees whose salary is between ₹50,000 and ₹70,000

ANSWER

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Filter objects

SCHEMAS

company_db

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- pwskills
- sakila
- sys
- world

Administration Schemas

Information

Schema: company_db

Object Info Session

Assingment no 2 SQL*

67

68 ## QUESTION NO 2

69 • SELECT *FROM employees

70 WHERE department IN ('Sales', 'IT', 'Finance');

71 • SELECT *FROM employees;

72

73 ## QUESTION NO 3

74 • SELECT *FROM employees

75 WHERE salary BETWEEN 50000 AND 70000;

76

77

78

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
101	Rahul Mehra	Sales	Delhi	55000	2020-04-12
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
107	Raj Kumar	HR	Delhi	60000	2020-05-28
108	Simran Kaur	Finance	Mumbai	58000	2021-08-03
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18
110	Anjali Das	Sales	Kolkata	51000	2023-01-15

employees 20

Output

Action Output

#	Time	Action	Message	Duration / Fetch
28	00:12:20	Select * from employees where salary between 50000 and 70000	0 row(s) returned	0.016 sec / 0.000 sec
29	00:12:32	SELECT *FROM employees	10 row(s) returned	0.000 sec / 0.000 sec
30	00:12:59	Select * from employees where salary between 50000 and 70000	0 row(s) returned	0.000 sec / 0.000 sec
31	00:13:30	Select * from employees where salary between '500000' and '70000'	0 row(s) returned	0.000 sec / 0.000 sec
32	00:14:31	SELECT *FROM employees WHERE salary BETWEEN 50000 AND 70000	6 row(s) returned	0.000 sec / 0.000 sec

QUESTION 4

List employees whose names start with the letter 'A'.

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

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- mitesh
- orders
- pw_skills
- pwskills
- sakila
- sys
- world

Administration Schemas

Information

Schema: company_db

employees 3 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
3	13:46:02	SELECT * FROM employees WHERE name LIKE 'A%'	Error Code: 1054. Unknown column 'name' in 'where clause'	0.000 sec
4	13:46:13	SELECT * FROM employees	10 row(s) returned	0.000 sec / 0.000 sec
5	13:46:49	SELECT * FROM employees WHERE Emp_Name LIKE 'A%'	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Result Grid

Filter Rows: Exports: Wrap Cell Contents

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
103	Aman Singh	IT	bengaluru	72000	2021-03-10
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18
110	Anjali Das	Sales	Kolkata	51000	2023-01-15

75 WHERE salary BETWEEN 50000 AND 70000;

76 SELECT * FROM employees;

77

78 ## QUESTION NO 4

79 SELECT * FROM employees

80 WHERE Emp_Name LIKE 'A%';

81

82

83

84

85

86

87

QUESTION 5

: Find employees whose names contain the substring 'an

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company_db

- Tables
- Views
- Stored Procedures
- Functions

company_md

- employee
- mitesh
- orders
- pw_skills
- pwskills
- sakila
- sys
- world

Administration Schemas

Information

Schema: company_db

Assingment no 2 SQL*

```
73 ## QUESTION NO 3
74 • SELECT *FROM employees
75 WHERE salary BETWEEN 50000 AND 70000;
76 • SELECT *FROM employees;
77
78 ## QUESTION NO 4
79 • SELECT * FROM employees
80 WHERE Emp_Name LIKE 'A%';
81 • SELECT *FROM employees;
82
83 ## QUESTION NO 5
84 • SELECT * FROM employees
85 WHERE Emp_Name LIKE 'An%';
--
```

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
110	Anjali Das	Sales	Kolkata	51000	2023-01-15

employees 7 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
7	13:51:07	SELECT * FROM employees WHERE Emp_Name LIKE 'An%'	1 row(s) returned	0.000 sec / 0.000 sec
8	13:51:19	SELECT *FROM employees	10 row(s) returned	0.000 sec / 0.000 sec
9	13:51:26	SELECT * FROM employees WHERE Emp_Name LIKE 'An%'	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

QUESTION 6

Show employees who are from 'Delhi' or 'Mumbai' and earn more than ₹55,000.

ANSWER

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Filter objects

SCHEMAS

- company_db
 - Tables
 - Views
 - Stored Procedures
 - Functions
- company_md
- employee
- mitesh
- orders
- pw_skills
- pwskills
- sakila
- sys
- world

Assignment no 2 SQL*

```
83  ## QUESTION NO 5
84  • SELECT * FROM employees
85  WHERE Emp_Name LIKE 'An%';
86  • SELECT *FROM employees;
87
88  ## QUESTION NO 6
89  • SELECT * FROM employees
90  WHERE city IN ('Delhi', 'Mumbai')
91  AND salary > 55000;
92
93
94
95
--
```

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
107	Raj Kumar	HR	Delhi	60000	2020-05-28
108	Simran Kaur	Finance	Mumbai	58000	2021-08-03

Administration Schemas

Information

Schema: company_db

employees 9

Output

Action Output

#	Time	Action	Message	Duration / Fetch
9	13:51:26	SELECT * FROM employees WHERE Emp_Name LIKE 'An%'	1 row(s) returned	0.000 sec / 0.000 sec
10	13:52:48	SELECT *FROM employees	10 row(s) returned	0.000 sec / 0.000 sec
11	14:17:22	SELECT * FROM employees WHERE city IN ('Delhi', 'Mumbai') AND salary > 55000	3 row(s) returned	0.000 sec / 0.000 sec

QUESTION 7

Display all employees except those from the 'HR' department.

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

company_db

- Tables
- Views
- Stored Procedures
- Functions

company_md

- employee
- mitesh
- orders
- pw_skills
- pwskills
- sakila
- sys
- world

Assingment no.2 SQL*

```
91 AND salary > 55000;  
92 • SELECT *FROM employees;  
93  
94 ## QUESTION NO 7  
95 • select * from employees  
96 WHERE department IN ('HR');  
97 • SELECT *FROM employees;  
98  
99  
100  
101  
102  
103
```

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
107	Raj Kumar	HR	Delhi	60000	2020-05-28

Administration Schemas

Information

Schema: company_db

employees 13 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 13	14:21:09	select * from employees WHERE department IN (HR)	2 row(s) returned	0.000 sec / 0.000 sec
✓ 14	14:21:19	SELECT *FROM employees	10 row(s) returned	0.000 sec / 0.000 sec
✓ 15	14:21:28	select * from employees WHERE department IN (HR)	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

QUESTION 8

Get all employees hired between 2019 and 2022, ordered by HireDate (oldest first).

ANSWER

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company_db

Tables

course

employees

Columns

Emp_id

Emp_Name

Department

City

Salary

Hire_Date

Indexes

Foreign Keys

Triggers

team_india

Views

Stored Procedures

Functions

company_md

employee

mitesh

orders

pw_skills

pwskills

Administration Schemas

Information

Table: employees

Columns:

Emp_id int

Emp_Name varchar(20)

Department char(10)

City char(15)

Salary int

Hire_Date date

Object Info Session

Assignment no 2 SQL*

Don't Limit

```

95 select * from employees
96 WHERE department IN ('HR');
97 SELECT *FROM employees;
98
99 ## QUESTION NO 8
100 ## Get all employees hired between 2019 and 2022, ordered by HireDate (oldest first).
101 SELECT * FROM employees
102 WHERE Hire_Date BETWEEN '2019-01-01' AND '2022-12-31'
103 ORDER BY hire_date ASC;
104
105
106
107

```

Result Grid

Emp_id	Emp_Name	Department	City	Salary	Hire_Date
102	Priya Sharma	HR	Mumbai	62000	2019-09-25
106	Divya Nair	IT	Chennai	81000	2019-12-11
101	Rahul Mehra	Sales	Delhi	55000	2020-04-12
107	Raj Kumar	HR	Delhi	60000	2020-05-28
103	Aman Singh	IT	bengaluru	72000	2021-03-10
108	Simran Kaur	Finance	Mumbai	58000	2021-08-03
104	Neha Patel	Sales	Delhi	48000	2022-01-14
109	Arjun Reddy	IT	Hyderabad	70000	2022-02-18

employees 16 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	14:41:31	SELECT * FROM employees WHERE HireDate BETWEEN '2019-01-01' AND '2022-12-31' ORDER BY Hir...	Error Code: 1054. Unknown column 'HireDate' in 'where clause'	0.000 sec
21	14:43:58	SELECT * FROM employees WHERE Hire_Date BETWEEN '2019-01-01' AND '2022-12-31' ORDER BY Hi...	Error Code: 1054. Unknown column 'HireDate' in 'order clause'	0.000 sec
22	14:45:02	SELECT * FROM employees WHERE Hire_Date BETWEEN '2019-01-01' AND '2022-12-31' ORDER BY Hi...	8 row(s) returned	0.000 sec / 0.000 sec