

MySQL Workbench

New Connection x

File Edit View Query Database Server Tools Scripting Help

my SQL File 3* new_class* joins* Functions* test1* x

Limit to 1000 rows

SCHEMAS

Filter objects

- assessment
- college
- joins
- mydatabase
- sakila
- sys

Administration Schemas

Information

Schema: **assessment**

```

56 • select * from students;
57 • select * from courses;
58 • select * from enrollments;
59
60 -- 1. Write a query to retrieve the first name, last name, and email of all students.
61
62 • select first_name,last_name,email from students;

```

Result Grid

first_name	last_name	email
John	Doe	john.doe@example.com
Jane	Smith	jane.smith@example.com
Michael	Johnson	michael.johnson@example.com
Emily	Williams	emily.williams@example.com
David	Brown	david.brown@example.com

students 4 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
32	07:16:02	select * from enrollments LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
33	07:17:51	select first_name,last_name,email from students LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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Administration Schemas

Information

Schema: **assessment**

```

62 • select first_name,last_name,email from students;
63
64 -- 2. Write a query to retrieve the course name, description, and credits for all courses with
65 -- more than 3 credits.
66
67 • select name,description,credits from courses
68 where credits>3;

```

Result Grid

name	description	credits
Data Structures and Algorithms	Study of data structures and algorithm design	4
Database Management Systems	Fundamentals of database design and manage...	4

courses 7 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
36	07:30:06	select name,description,credits from courses where credits>3 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
37	07:30:32	select name,description,credits from courses where credits>3 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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Limit to 1000 rows

67 • select name,description,credits from courses
68 where credits>3;
69
70 -- 3. Write a query to retrieve the student's first name, last name, and the course name for
71 -- all enrollments.
72
73 • select first_name,last_name,name from students,courses;

Result Grid

first_name	last_name	name
David	Brown	Introduction to Computer Science
Emily	Williams	Introduction to Computer Science
Michael	Johnson	Introduction to Computer Science
Jane	Smith	Introduction to Computer Science
John	Doe	Introduction to Computer Science
David	Brown	Data Structures and Algorithms
Emily	Williams	Data Structures and Algorithms
Michael	Johnson	Data Structures and Algorithms
Jane	Smith	Data Structures and Algorithms
John	Doe	Data Structures and Algorithms

Result 8 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
37	07:30:32	select name,description,credits from courses where credits>3 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
38	07:35:05	select first_name,last_name,name from students,courses LIMIT 0, 1000	25 row(s) returned	0.000 sec / 0.000 sec

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Limit to 1000 rows

73 • select first_name,last_name,name from students,courses;
74
75 -- 4. Write a query to retrieve the first name and last name of students who are enrolled in
76 -- the 'Web Development' course.
77
78 • select first_name,last_name,course_id from students,enrollments
79 where course_id=3 ;

Result Grid

first_name	last_name	course_id
John	Doe	3
John	Doe	3
Jane	Smith	3
Jane	Smith	3
Michael	Johnson	3
Michael	Johnson	3
Emily	Williams	3
Emily	Williams	3
David	Brown	3
David	Brown	3

Result 29 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
60	07:50:45	select * from enrollments LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
61	07:52:58	select first_name,last_name,course_id from students,enrollments where course_id=3 ...	10 row(s) returned	0.000 sec / 0.000 sec

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Navigator

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Schemas

Filter objects

assessment
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Administration Schemas

Information

Schema: assessment

80
81 -- 5. Write a query to retrieve the course name and the total number of students enrolled in
82 -- each course.
83
84 • select count(student_id),name from enrollments,courses
85 group by name;
86

Result Grid

count(student_id)	name
7	Operating Systems
7	Database Management Systems
7	Web Development
7	Data Structures and Algorithms
7	Introduction to Computer Science

Result 97 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
177	11:12:51	select first_name,last_name,email from students.enrollments where course_id != 5 U...	25 row(s) returned	0.000 sec / 0.000 sec
178	11:14:56	select name,description from courses.enrollments group by max(grade) LIMIT 0, 1000	Error Code: 1111. Invalid use of group function	0.000 sec
179	11:17:34	select name,description from courses.enrollments where grade limit 1	0 row(s) returned	0.000 sec / 0.000 sec
180	11:19:06	select name,description from courses where (select grade from enrollments where or...	0 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

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Administration Schemas

Information

Schema: assessment

97
98 -- 9. Write a query to update the phone number of the student with the email
99 -- 'john.doe@example.com' to '9998887777'.
100
101 • update students set phone='9998887777' where email='john.doe@example.com';
102 • select * from students;
103
104

Result Grid

id	first_name	last_name	email	phone	date_of_birth
1	John	Doe	john.doe@example.com	9998887777	1990-05-15
2	Jane	Smith	jane.smith@example.com	9876543210	1992-08-22
3	Michael	Johnson	michael.johnson@example.com	5551234567	1988-11-03
4	Emily	Williams	emily.williams@example.com	7781234567	1995-03-28
5	David	Brown	david.brown@example.com	4441234567	1993-07-12

students 68 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
120	08:40:09	select * from students LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
121	08:40:24	select * from students LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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Information

Schema: assessment

SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

```

100
101 • update students set phone='9998887777' where email='john.doe@example.com';
102 • select * from students;
103
104 -- 10. Write a query to delete the enrollment record with the ID 5.
105 • delete from enrollments where id=5;
106 • select * from enrollments;

```

Result Grid

id	student_id	course_id	enrollment_date	grade
1	1	1	2018-09-01	A
2	1	2	2018-09-01	B
3	2	1	2019-01-15	B
4	2	3	2019-01-15	A
6	3	4	2019-01-15	B
7	4	3	2020-09-01	A
8	4	5	2020-09-01	B
9	5	4	2019-01-15	C
10	5	5	2019-01-15	B

enrollments 70 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
124	08:44:38	delete from enrollments where id=5	1 row(s) affected	0.000 sec
125	08:45:01	select * from enrollments LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec

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Information

Schema: assessment

SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

```

105 • delete from enrollments where id=5;
106 • select * from enrollments;
107
108 -- 11. Write a query to retrieve the first name, last name, and date of birth of students born
109 -- before January 1, 1993.
110 • select first_name,last_name,date_of_birth from students
111 where date_of_birth<'1993-01-01';

```

Result Grid

first_name	last_name	date_of_birth
John	Doe	1990-05-15
Jane	Smith	1992-08-22
Michael	Johnson	1988-11-03

students 74 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
128	08:49:06	select first_name,last_name,date_of_birth from students where date_of_birth>1993...	2 row(s) returned	0.000 sec / 0.000 sec
129	08:49:34	select first_name,last_name,date_of_birth from students where date_of_birth<1993...	3 row(s) returned	0.000 sec / 0.000 sec

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Limit to 1000 rows

109 -- before January 1, 1993.

110 • select first_name,last_name,date_of_birth from students

111 where date_of_birth<'1993-01-01';

112

113 -- 12. Write a query to retrieve the first name, last name, and email of students whose email

114 -- addresses end with '@example.com'.

115 • select first_name,last_name,email from students where email like '%@example.com';

Result Grid

first_name	last_name	email
John	Doe	john.doe@example.com
Jane	Smith	jane.smith@example.com
Michael	Johnson	michael.johnson@example.com
Emily	Williams	emily.williams@example.com
David	Brown	david.brown@example.com

students 77 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 131	10:01:17	select first_name,last_name,email from students where email like '@example.com' LI...	0 row(s) returned	0.000 sec / 0.000 sec
✓ 132	10:02:15	select first_name,last_name,email from students where email like '%@example.com' ...	5 row(s) returned	0.000 sec / 0.000 sec

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my SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

121

122 -- 14. Write a query to retrieve the course name, description, and the name of the student

123 -- with the highest grade in each course.

124 • select name,description from courses

125 where (select grade from enrollments where grade limit 1);

126

Result Grid

name	description
------	-------------

courses 96 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 176	11:12:25	select * from students LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
✓ 177	11:12:51	select first_name,last_name,email from students,enrollments where course_id != 5 LI...	25 row(s) returned	0.000 sec / 0.000 sec
✗ 178	11:14:56	select name,description from courses,enrollments group by max(grade) LIMIT 0, 1000	Error Code: 1111. Invalid use of group function	0.000 sec
✓ 179	11:17:34	select name,description from courses,enrollments where grade limit 1	0 row(s) returned	0.000 sec / 0.000 sec
✓ 180	11:19:06	select name,description from courses where (select grade from enrollments where gr...	0 row(s) returned	0.015 sec / 0.000 sec

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Schema: assessment

my SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

```

126
127 -- 16. Write a query to retrieve the first name, last name, and email of students who are not
128 -- enrolled in the 'Operating Systems' course.
129 • select first_name,last_name,email from students,enrollments
130 where course_id != 5;

```

Result Grid

first_name	last_name	email
David	Brown	david.brown@example.com
Emily	Williams	emily.williams@example.com
Michael	Johnson	michael.johnson@example.com
Jane	Smith	jane.smith@example.com
John	Doe	john.doe@example.com
David	Brown	david.brown@example.com
Emily	Williams	emily.williams@example.com

Result 94 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
173	11:11:25	select first_name,last_name,email from students,enrollments where course_id != 5 LI...	25 row(s) returned	0.000 sec / 0.000 sec
174	11:12:01	select * from enrollments LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
175	11:12:22	CREATE TABLE students (id INT AUTO_INCREMENT PRIMARY KEY, first_nam...	Error Code: 1050. Table 'students' already exists	0.000 sec
176	11:12:25	select * from students LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
177	11:12:51	select first_name,last_name,email from students,enrollments where course_id != 5 LI...	25 row(s) returned	0.000 sec / 0.000 sec

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Information

Schema: assessment

my SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

```

126
127
128 -- 18. Write a query to insert a new student record with the following details: 'Alice',
129 -- 'Taylor', 'alice.taylor@example.com', '5559876543', '1997-06-20'.
130 • insert into students (id,first_name,last_name,email , phone,date_of_birth )
131 values (6,'Alice', 'Taylor', 'alice.taylor@example.com', '5559876543', '1997-06-20');
132 • select * from students;

```

Result Grid

id	first_name	last_name	email	phone	date_of_birth
1	John	Doe	john.doe@example.com	9998887777	1990-05-15
2	Jane	Smith	jane.smith@example.com	9876543210	1992-08-22
3	Michael	Johnson	michael.johnson@example.com	5551234567	1988-11-03
4	Emily	Williams	emily.williams@example.com	7781234567	1995-03-28
5	David	Brown	david.brown@example.com	4441234567	1993-07-12
6	Alice	Taylor	alice.taylor@example.com	5559876543	1997-06-20

students 81 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
147	10:31:55	insert into students (id,first_name ,last_name,email , phone,date_of_birth) values (6,'...	1 row(s) affected	0.016 sec
148	10:32:13	select * from students LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

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Information

Schema: assessment

SQL File 3* new_class* joins* Functions* test1*

Limit to 1000 rows

```

132 • select * from students;
133
134 -- 19. Write a query to update the description of the 'Web Development' course to
135 -- 'Principles and practices of modern web development'
136 • update courses set description='Principles and practices of modern web development' where id=3;
137 • select * from courses;
138

```

Result Grid

id	name	description	credits
1	Introduction to Computer Science	An overview of computer science fundamentals	3
2	Data Structures and Algorithms	Study of data structures and algorithm design	4
3	Web Development	Principles and practices of modern web development	3
4	Database Management Systems	Fundamentals of database design and management	4
5	Operating Systems	Study of operating system concepts and principles	3

courses 83 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
151	10:37:07	update courses set description='Principles and practices of modern web development' where id=3;	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0	0.000 sec / 0.000 sec
152	10:37:14	select * from courses LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

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```

135 -- 'Principles and practices of modern web development'
136 • update courses set description='Principles and practices of modern web development' where id=3;
137 • select * from courses;
138
139 -- 20. Write a query to delete all enrollment records for the course with the ID 3.
140 • delete from enrollments e1 where course_id=3;
141 • select * from enrollments;
142

```

Result Grid

id	student_id	course_id	enrollment_date	grade
1	1	1	2018-09-01	A
2	1	2	2018-09-01	B
3	2	1	2019-01-15	B
6	3	4	2019-01-15	B
8	4	5	2020-09-01	B
9	5	4	2019-01-15	C
10	5	5	2019-01-15	B

enrollments 85 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
155	10:46:46	select * from enrollments LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
156	10:46:58	select * from enrollments LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session