

MySQL Workbench

Local instance MySQL80 ×

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2* ×

SQLAdditions

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

```
/* Coding Challenges: CareerHub, The Job Board
Tasks:
1. Provide a SQL script that initializes the database for the Job Board scenario "CareerHub".
2. Create tables for Companies, Jobs, Applicants and Applications.
3. Define appropriate primary keys, foreign keys, and constraints.
4. Ensure the script handles potential errors, such as if the database or tables already exist.*/
CREATE DATABASE IF NOT EXISTS CareerHubDB;
USE CareerHubDB;
CREATE TABLE IF NOT EXISTS Companies (
    CompanyID INT PRIMARY KEY,
    CompanyName VARCHAR(255),
    Location VARCHAR(255)
);
```

Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
37	16:43:14	USE CareerHubDB	0 row(s) affected	0.000 sec
38	16:43:19	CREATE TABLE IF NOT EXISTS Companies (CompanyID INT PRIMARY KEY, CompanyName VARCHAR(255), Location VARCHAR(255));	0 row(s) affected	0.032 sec

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1 16:43 13-12-2023

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SQLAdditions

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```
19 • INSERT INTO Companies (CompanyID, CompanyName, Location)
20 VALUES
21     (1, 'Tech Solutions Pvt Ltd', 'Bangalore'),
22     (2, 'Innovate IT Services', 'Mumbai'),
23     (3, 'Global Innovations Ltd', 'Delhi'),
24     (4, 'Data Analytics Co.', 'Hyderabad'),
25     (5, 'EduTech Solutions', 'Chennai'),
26     (6, 'HealthCare Systems', 'Pune'),
27     (7, 'Finance Experts Ltd', 'Kolkata'),
28     (8, 'Green Energy Innovators', 'Ahmedabad'),
29     (9, 'Creative Media Hub', 'Jaipur'),
30     (10, 'Logistics Connect', 'Lucknow);
31
32
33 • CREATE TABLE IF NOT EXISTS Jobs (
34     JobID INT PRIMARY KEY,
35     CompanyID INT,
36     JobTitle VARCHAR(255),
37     Description TEXT
```

Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
38	16:43:19	CREATE TABLE IF NOT EXISTS Companies (CompanyID INT PRIMARY KE...	0 row(s) affected	0.032 sec
39	16:43:36	INSFRT INTO Companies (CompanyID, CompanyName, Location) VAU IIFS (1 'T	10 mw(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec

Object Info Session

1 16:43 13-12-2023

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```
40 JobType VARCHAR(50),
41 PostedDate DATETIME,
42 FOREIGN KEY (CompanyID) REFERENCES Companies(CompanyID)
43 );
44 • INSERT INTO Jobs (JobID, CompanyID, JobTitle, JobDescription, JobLocation, Salary, JobType, PostedDate)
45 VALUES
46     (1, 1, 'Software Developer', 'Developing cutting-edge software solutions.', 'Bangalore', 90000, 'Full-time',
47     (2, 2, 'Data Analyst', 'Analyzing and interpreting complex data sets.', 'Delhi', 60000, 'Full-time', '20
48     (3, 3, 'Network Engineer', 'Designing and implementing network solutions.', 'Goa', 75000, 'Contract', '2
49     (4, 4, 'Data Scientist', 'Applying advanced statistical models to analyze data.', 'Hyderabad', 90000, 'F
50     (5, 5, 'Education Consultant', 'Providing guidance on educational programs.', 'Bareilly', 54000, 'Part-t
51     (6, 6, 'Healthcare Analyst', 'Analyzing healthcare data for insights.', 'Pune', 70000, 'Full-time', '202
52     (7, 7, 'Finance Manager', 'Managing financial operations and reporting.', 'Ajmer', 87000, 'Full-time', '1
53     (8, 8, 'Renewable Energy Engineer', 'Developing sustainable energy solutions.', 'Ahmedabad', 95000, 'Fu
54     (9, 9, 'Graphic Designer', 'Creating visual content for media projects.', 'Jaipur', 50000, 'Contract', '1
55     (10, 10, 'Logistics Coordinator', 'Coordinating transportation and logistics activities.', 'Lucknow', 60
56
57 • CREATE TABLE IF NOT EXISTS Applicants (
58     ADDITIONAL INFORMATION
```

Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
40	16:43:50	CREATE TABLE IF NOT EXISTS Jobs (JobID INT PRIMARY KEY, Com...)	0 row(s) affected	0.062 sec
41	16:44:51	INSERT INTO Jobs (JobID, CompanyID, JobTitle, JobDescription, JobLocation, Sal...	10 rows(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec

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1 16:44 13-12-2023

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SQLAdditions

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```
55      (10, 10, 'Logistics Coordinator', 'Coordinating transportation and logistics activities.', 'Lucknow', 60
56
57 • CREATE TABLE IF NOT EXISTS Applicants (
58     ApplicantID INT PRIMARY KEY,
59     FirstName VARCHAR(255),
60     LastName VARCHAR(255),
61     Email VARCHAR(255),
62     Phone VARCHAR(20),
63     Resume TEXT
64 );
65 • INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resume)
66 VALUES
67     (1, 'Amit', 'Sharma', 'amit.sharma@email.com', '9876543210', 'Link to Amit\'s resume'),
68     (2, 'Priya', 'Verma', 'priya.verma@email.com', '8765432109', 'Link to Priya\'s resume'),
69     (3, 'Rahul', 'Gupta', 'rahul.gupta@email.com', '7654321098', 'Link to Rahul\'s resume'),
70     (4, 'Neha', 'Singh', 'neha.singh@email.com', '6543210987', 'Link to Neha\'s resume'),
71     (5, 'Ananya', 'Das', 'ananya.das@email.com', '5432109876', 'Link to Ananya\'s resume'),
72     (6, 'Vikram', 'Yadav', 'vikram.yadav@email.com', '4321098765', 'Link to Vikram\'s resume'),
73     (7, 'Rishabh', 'Kumar', 'rishabh.kumar@email.com', '3210987654', 'Link to Rishabh\'s resume'),
74     (8, 'Siddharth', 'Kumar', 'siddharth.kumar@email.com', '2310987654', 'Link to Siddharth\'s resume'),
75     (9, 'Aayush', 'Kumar', 'aayush.kumar@email.com', '12310987654', 'Link to Aayush\'s resume'),
76     (10, 'Vanshika', 'Kumar', 'vanshika.kumar@email.com', '012310987654', 'Link to Vanshika\'s resume')
```

Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
41	16:44:51	INSERT INTO Jobs (JobID, CompanyID, JobTitle, JobDescription, JobLocation, Sal... 10 row(s) affected	Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
42	16:45:36	CREATE TABLE IF NOT EXISTS Applicants (ApplicantID INT PRIMARY KEY 0 row(s) affected		0.016 sec

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SQLAdditions

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

```
61 Email VARCHAR(255),
62 Phone VARCHAR(20),
63 Resume TEXT
64 );
65 • INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resume)
66 VALUES
67     (1, 'Amit', 'Sharma', 'amit.sharma@email.com', '9876543210', 'Link to Amit\'s resume'),
68     (2, 'Priya', 'Verma', 'priya.verma@email.com', '8765432109', 'Link to Priya\'s resume'),
69     (3, 'Rahul', 'Gupta', 'rahul.gupta@email.com', '7654321098', 'Link to Rahul\'s resume'),
70     (4, 'Neha', 'Singh', 'neha.singh@email.com', '6543210987', 'Link to Neha\'s resume'),
71     (5, 'Ananya', 'Das', 'ananya.das@email.com', '5432109876', 'Link to Ananya\'s resume'),
72     (6, 'Vikram', 'Yadav', 'vikram.yadav@email.com', '4321098765', 'Link to Vikram\'s resume'),
73     (7, 'Sneha', 'Joshi', 'sneha.joshi@email.com', '3210987654', 'Link to Sneha\'s resume'),
74     (8, 'Raj', 'Patel', 'raj.patel@email.com', '2109876543', 'Link to Raj\'s resume'),
75     (9, 'Isha', 'Malhotra', 'isha.malhotra@email.com', '1098765432', 'Link to Isha\'s resume'),
76     (10, 'Karan', 'Saxena', 'karan.saxena@email.com', '9876543210', 'Link to Karan\'s resume');
77
78 • CREATE TABLE IF NOT EXISTS Applications (
    ADD PRIMARY KEY
```

Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
42	16:45:36	CREATE TABLE IF NOT EXISTS Applicants (ApplicantID INT PRIMARY KE...	0 row(s) affected	0.016 sec
43	16:45:53	INSFRT INTO Applicants (ApplicantID FirstName LastName Email Phone Resu	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.031 sec

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MySQL Workbench

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Administration Schemas

No object selected

Information

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Action Output

#	Time	Action	Message	Duration / Fetch
43	16:45:53	INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resu...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.031 sec
44	16:46:11	CREATE TABLE IF NOT EXISTS Applications (ApplicationID INT PRIMARY KEY,	0 row(s) affected	0.047 sec

Object Info Session

1 16:46 13-12-2023

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

Context Help Snippets

SQLAdditions

Jump to

NAVIGATION

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No object selected

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Action Output

#	Time	Action	Message	Duration / Fetch
43	16:45:53	INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resu...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.031 sec
44	16:46:11	CREATE TABLE IF NOT EXISTS Applications (ApplicationID INT PRIMARY KEY,	0 row(s) affected	0.047 sec

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NAVIGATION

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No object selected

Information

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Action Output

#	Time	Action	Message	Duration / Fetch
43	16:45:53	INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resu...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.031 sec
44	16:46:11	CREATE TABLE IF NOT EXISTS Applications (ApplicationID INT PRIMARY KEY,	0 row(s) affected	0.047 sec

Object Info Session

1 16:46 13-12-2023

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2* ×

FOREIGN KEY (ApplicantID) REFERENCES Applicants(ApplicantID)

);

• INSERT INTO Applications (ApplicationID, JobID, ApplicantID, ApplicationDate, CoverLetter)

VALUES

(1, 1, 1, '2023-01-04', 'I am excited about the opportunity to contribute to your software development team.'),
(2, 2, 2, '2023-01-02', 'I have a strong background in data analysis and a keen eye for detail.'),
(3, 3, 3, '2023-01-21', 'I am experienced in designing and managing complex network infrastructures.'),
(4, 4, 4, '2023-01-16', 'My expertise in data science can bring valuable insights to your organization.'),
(5, 5, 5, '2023-01-11', 'I am passionate about education and have experience in educational consulting.'),
(6, 6, 6, '2023-01-26', 'My analytical skills can contribute to the improvement of healthcare services.'),
(7, 7, 7, '2023-02-02', 'I have a proven track record in financial management and reporting.'),
(8, 8, 8, '2023-02-06', 'I am committed to developing sustainable and innovative energy solutions.'),
(9, 9, 9, '2023-02-11', 'I bring creativity and a strong design sense to graphic design projects.'),
(10, 10, 10, '2023-02-16', 'I have experience coordinating logistics activities and ensuring smooth operations.'),
-- Task 5: Count the number of applications received for each job listing

• SELECT J.JobID, J.JobTitle, COUNT(A.ApplicationID) AS ApplicationCount
FROM Jobs J

SQLAdditions ⋮

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

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
44	16:46:11	CREATE TABLE IF NOT EXISTS Applications (ApplicationID INT PRIMARY KEY, JobID INT, ApplicantID INT, ApplicationDate DATE, CoverLetter TEXT)	0 row(s) affected	0.047 sec
45	16:46:46	INSERT INTO Applications (ApplicationID, JobID, ApplicantID, ApplicationDate, CoverLetter)	10 rows(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec

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No object selected

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SQLAdditions

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Limit to 1000 rows

```
97      (9, 9, 9, '2023-02-11', 'I bring creativity and a strong design sense to graphic design projects.'),  
98      (10, 10, 10, '2023-02-16', 'I have experience coordinating logistics activities and ensuring smooth oper  
99  
100  
101      -- Task 5: Count the number of applications received for each job listing  
102 • SELECT J.JobID, J.JobTitle, COUNT(A.ApplicationID) AS ApplicationCount  
103     FROM Jobs J  
104     LEFT JOIN Applications A ON J.JobID = A.JobID  
105     GROUP BY J.JobID, J.JobTitle;  
106  
107
```

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobID	JobTitle	ApplicationCount
1	Software Developer	1
2	Data Analyst	1
3	Network Engineer	1
4	Data Scientist	1
5	Education Consultant	1

Result 1 × Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
45	16:46:46	INSERT INTO Applications (ApplicationID, JobID, ApplicantID, ApplicationDate, Co...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
46	16:47:02	SPLIT(J.LnhdID, J.LnhdTitle, COUNT(A.ApplicationID) AS ApplicationCount) FROM	10 row(s) returned	0.000 sec / 0.000 sec

16:47 13-12-2023

MySQL Workbench

Local instance MySQL80 x

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SQLAdditions

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103 FROM Jobs J
104 LEFT JOIN Applications A ON J.JobID = A.JobID
105 GROUP BY J.JobID, J.JobTitle;
106
107
108 -- Task 6: Retrieve job listings within a specified salary range
109 • SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary
110 FROM Jobs J
111 JOIN Companies C ON J.CompanyID = C.CompanyID
112 WHERE J.Salary BETWEEN 60000 AND 80000;
113

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle	CompanyName	JobLocation	Salary
Data Analyst	Innovate IT Services	Delhi	60000.00
Network Engineer	Global Innovations Ltd	Goa	75000.00
Healthcare Analyst	HealthCare Systems	Pune	70000.00
Logistics Coordinator	Logistics Connect	Lucknow	60000.00

Result 2 x Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
46	16:47:02	SELECT J.JobID, J.JobTitle, COUNT(A.ApplicationID) AS ApplicationCount FROM ...	10 row(s) returned	0.000 sec / 0.000 sec
47	16:47:14	SPLIT SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN Companies C ON J.CompanyID = C.CompanyID WHERE J.Salary BETWEEN 60000 AND 80000;	4 row(s) returned	0.000 sec / 0.000 sec

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```
112 WHERE J.Salary BETWEEN 60000 AND 80000;
113 Execute the selected portion of the script or everything, if there is no selection
114 -- Task 7: Retrieve job application history for a specific applicant
115 • SELECT J.JobTitle, C.CompanyName, A.ApplicationDate
116 FROM Applications A
117 JOIN Jobs J ON A.JobID = J.JobID
118 JOIN Companies C ON J.CompanyID = C.CompanyID
119 WHERE A.ApplicantID = 1;
120
121 -- Task 8: Calculate and display the average salary offered by all companies
122 • SELECT AVG(Salary) AS AverageSalary
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result 3 x

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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SQLAdditions

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```
118 JOIN Companies C ON J.CompanyID = C.CompanyID
119 WHERE A.ApplicantID = 1;
120
121 -- Task 8: Calculate and display the average salary offered by all companies
122 • SELECT AVG(Salary) AS AverageSalary
123 FROM Jobs
124 WHERE Salary > 0;
125
126 -- Task 9: Identify the company that has posted the most job listings
127 • SELECT C.CompanyName, COUNT(J.JobID) AS JobCount
128 FROM Companies C
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result Grid

Result 3 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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```
124 WHERE Salary > 0;
125
126 -- Task 9: Identify the company that has posted the most job listings
127 • SELECT C.CompanyName, COUNT(J.JobID) AS JobCount
128 FROM Companies C
129 LEFT JOIN Jobs J ON C.CompanyID = J.CompanyID
130 GROUP BY C.CompanyID
131 ORDER BY JobCount DESC
132 LIMIT 1;
133
134
```

Result Grid | Filter Rows: Export: Wrap Cell Content: □

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result Grid

Result 3 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

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133
134
135 -- Task 10: Find applicants who have applied for positions in companies located in "CityX" and have at least 3 years of experience.
136 • SELECT A.FirstName, A.LastName, C.CompanyName, J.JobTitle
137 FROM Applicants A
138 JOIN Applications App ON A.ApplicantID = App.ApplicantID
139 JOIN Jobs J ON App.JobID = J.JobID
140 JOIN Companies C ON J.CompanyID = C.CompanyID
141 WHERE C.Location = 'mumbai' AND YEAR(App.ApplicationDate) >= YEAR(CURDATE()) - 3;
142
143

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result 3 x Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SFI FCT.J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 ENG IN 16:47 13-12-2023

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

MySQL Workbench

Local instance MySQL80 x

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SQl Datasheet SQL Editor

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Information

No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2*

SQLAdditions

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

```
139 JOIN Jobs J ON App.JobID = J.JobID
140 JOIN Companies C ON J.CompanyID = C.CompanyID
141 WHERE C.Location = 'mumbai' AND YEAR(App.ApplicationDate) >= YEAR(CURDATE()) - 3;
142
143
144 -- Task 11: Retrieve distinct job titles with salaries between $60,000 and $80,000
145 • SELECT DISTINCT JobTitle, Salary
146 FROM Jobs
147 WHERE Salary BETWEEN 60000 AND 80000;
148
149 -- Task 12: Find jobs that have not received any applications
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result Grid

Result 3 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 16:47 13-12-2023 ENG IN

MySQL Workbench

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SQl Navigator SQL Additions

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2*

145 • SELECT DISTINCT JobTitle, Salary
146 FROM Jobs
147 WHERE Salary BETWEEN 60000 AND 80000;
148
149 -- Task 12: Find jobs that have not received any applications
150 • SELECT J.JobTitle
151 FROM Jobs J
152 LEFT JOIN Applications A ON J.JobID = A.JobID
153 WHERE A.ApplicationID IS NULL;
154
155 -- Task 13: Retrieve a list of job applicants along with the companies and positions they have applied for

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result 3 x Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 ENG IN 16:47 13-12-2023

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

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

SQl PRE SQL Editor

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2* ×

158 LEFT JOIN Applications AP ON A.ApplicantID = AP.ApplicantID
159 LEFT JOIN Jobs J ON AP.JobID = J.JobID
160 LEFT JOIN Companies C ON J.CompanyID = C.CompanyID;
161
162 -- Task 14: Retrieve a list of companies along with the count of jobs they have posted, even if they have
163 • SELECT C.CompanyName, COALESCE(COUNT(J.JobID), 0) AS JobCount
164 FROM Companies C
165 LEFT JOIN Jobs J ON C.CompanyID = J.CompanyID
166 GROUP BY C.CompanyID, C.CompanyName;
167
168 -- Task 15: List all applicants along with the companies and positions they have applied for, including th

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result 3 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SPLIT SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 16:48 13-12-2023

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

MySQL Workbench

Local instance MySQL80 ×

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2* ×

164 FROM Companies C
165 LEFT JOIN Jobs J ON C.CompanyID = J.CompanyID
166 GROUP BY C.CompanyID, C.CompanyName;
167
168 -- Task 15: List all applicants along with the companies and positions they have applied for, including th
169 • SELECT A.FirstName, A.LastName, C.CompanyName, J.JobTitle
170 FROM Applicants A
171 LEFT JOIN Applications App ON A.ApplicantID = App.ApplicantID
172 LEFT JOIN Jobs J ON App.JobID = J.JobID
173 LEFT JOIN Companies C ON J.CompanyID = C.CompanyID;
174

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle	CompanyName	ApplicationDate
Software Developer	Tech Solutions Pvt Ltd	2023-01-04 00:00:00

Result 3 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
47	16:47:14	SELECT J.JobTitle, C.CompanyName, J.JobLocation, J.Salary FROM Jobs J JOIN ...	4 row(s) returned	0.000 sec / 0.000 sec
48	16:47:23	SFI FCT.J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOIN ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 16:48 13-12-2023

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

MySQL Workbench

Local instance MySQL80 ×

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SQLAdditions

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

```
170    FROM Applicants A
171    LEFT JOIN Applications App ON A.ApplicantID = App.ApplicantID
172    LEFT JOIN Jobs J ON App.JobID = J.JobID
173    LEFT JOIN Companies C ON J.CompanyID = C.CompanyID;
174
175    -- Task 16: Find companies that have posted jobs with a salary higher than the average salary of all jobs
176 •    SELECT DISTINCT C.CompanyName
177    FROM Companies C
178    JOIN Jobs J ON C.CompanyID = J.CompanyID
179    WHERE J.Salary > (SELECT AVG(Salary) FROM Jobs);
180
```

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

CompanyName
Tech Solutions Pvt Ltd
Global Innovations Ltd
Data Analytics Co.
Finance Experts Ltd
Green Energy Innovators

Result 4 × Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
48	16:47:23	SELECT J.JobTitle, C.CompanyName, A.ApplicationDate FROM Applications A JOI...	1 row(s) returned	0.000 sec / 0.000 sec
49	16:48:20	SPLIT DISTINCT C.CompanyName FROM Companies C JOIN Jobs J ON C.Com...	5 row(s) returned	0.000 sec / 0.000 sec

1 ENG IN 16:48 13-12-2023

MySQL Workbench

Local instance MySQL80 ×

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No object selected

SQLAdditions

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

176 • SELECT DISTINCT C.CompanyName
177 FF Execute the selected portion of the script or everything, if there is no selection
178 JOIN Jobs J ON C.CompanyID = J.CompanyID
179 WHERE J.Salary > (SELECT AVG(Salary) FROM Jobs);
180
181 -- Task 17: Display a list of applicants with their names and a concatenated string of their city and state
182 • SELECT ApplicantID, CONCAT(FirstName, ' ', LastName) AS FullName
183 FROM Applicants;
184
185
186 -- Task 18: Retrieve a list of jobs with titles containing either "Developer" or "Engineer"

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

ApplicantID	FullName
1	Amit Sharma
2	Priya Verma
3	Rahul Gupta
4	Neha Singh
5	Ananya Das

Result 5 × Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
49	16:48:20	SELECT DISTINCT C.CompanyName FROM Companies C JOIN Jobs J ON C.Com...	5 row(s) returned	0.000 sec / 0.000 sec
50	16:48:28	SPLIT ApplicantID, CONCAT(FirstName, ' ', LastName) AS FullName FROM Appli...	10 row(s) returned	0.015 sec / 0.000 sec

16:48 13-12-2023

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

SQl PRE SQL Editor

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No object selected

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2*

182 • SELECT ApplicantID, CONCAT(FirstName, ' ', LastName) AS FullName
183 FROM Applicants;
184
185
186 -- Task 18: Retrieve a list of jobs with titles containing either "Developer" or "Engineer"
187 • SELECT JobTitle
188 FROM Jobs
189 WHERE JobTitle LIKE '%Developer%' OR JobTitle LIKE '%Engineer%';
190
191 -- Task 19: Retrieve a list of applicants and the jobs they have applied for, including those who have not
192 • SELECT A.FirstName, A.LastName, C.CompanyName, J.JobTitle

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

JobTitle
Software Developer
Network Engineer
Renewable Energy Engineer

Jobs 6 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
50	16:48:28	SELECT ApplicantID, CONCAT(FirstName, ' ', LastName) AS FullName FROM Applicants;	10 row(s) returned	0.015 sec / 0.000 sec
51	16:48:35	SPLIT SELECT JobTitle FROM Jobs WHERE JobTitle LIKE '%Developer%' OR JobTitle LIKE '%Engineer%';	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

1 16:48 13-12-2023

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

MySQL Workbench

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No object selected

Information

Object Info Session

codingchallenge2*

187 • `SELECT JobTitle`
188 Execute the selected portion of the script or everything, if there is no selection
189 `FROM Jobs`
190
191 -- Task 19: Retrieve a list of applicants and the jobs they have applied for, including those who have not
192 • `SELECT A.FirstName, A.LastName, C.CompanyName, J.JobTitle`
193 `FROM Applicants A`
194 `CROSS JOIN Companies C`
195 `LEFT JOIN Applications App ON A.ApplicantID = App.ApplicantID`
196 `LEFT JOIN Jobs J ON App.JobID = J.JobID AND J.CompanyID = C.CompanyID;`
197

SQLAdditions

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

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

FirstName	LastName	CompanyName	JobTitle
Karan	Saxena	Tech Solutions Pvt Ltd	NULL
Isha	Malhotra	Tech Solutions Pvt Ltd	NULL
Raj	Patel	Tech Solutions Pvt Ltd	NULL
Sneha	Joshi	Tech Solutions Pvt Ltd	NULL
Vikram	Yadav	Tech Solutions Pvt Ltd	NULL

Result 7 × Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
51	16:48:35	SELECT JobTitle FROM Jobs WHERE JobTitle LIKE "%Developer%" OR JobTitle Li...	3 row(s) returned	0.000 sec / 0.000 sec
52	16:48:44	SPLIT A.FirstName, A.LastName, C.CompanyName, J.JobTitle FROM Applicants	100 mw(s) returned	0.000 sec / 0.000 sec

16:48 13-12-2023

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

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No object selected

Information

Object Info Session

assignment1 Assignment2* Assignment3* codingchallenge1* codingchallenge2*

SQLAdditions

CROSS JOIN Companies C
LEFT JOIN Applications App ON A.ApplicantID = App.ApplicantID
LEFT JOIN Jobs J ON App.JobID = J.JobID AND J.CompanyID = C.CompanyID;
-- Task 20: List all combinations of applicants and companies where the company is in a specific city and
SELECT A.FirstName, A.LastName, C.CompanyName
FROM Applicants A
CROSS JOIN Companies C
JOIN Applications App ON A.ApplicantID = App.ApplicantID
WHERE C.Location = 'mumbai' AND YEAR(App.ApplicationDate) >= YEAR(CURDATE()) - 2;

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid

FirstName	LastName	CompanyName	JobTitle
Karan	Saxena	Tech Solutions Pvt Ltd	NULL
Isha	Malhotra	Tech Solutions Pvt Ltd	NULL
Raj	Patel	Tech Solutions Pvt Ltd	NULL
Sneha	Joshi	Tech Solutions Pvt Ltd	NULL
Vikram	Yadav	Tech Solutions Pvt Ltd	NULL

Result 7 × Read Only Context Help Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
51	16:48:35	SELECT JobTitle FROM Jobs WHERE JobTitle LIKE "%Developer%" OR JobTitle Li...	3 row(s) returned	0.000 sec / 0.000 sec
52	16:48:44	SPLIT A.FirstName, A.LastName, C.CompanyName, J.JobTitle FROM Applicants	100 mw(s) returned	0.000 sec / 0.000 sec

16:48 13-12-2023