

# Coding Challenge 2

## CareerHub

1.

```
coding challenge 2_CareerHub x
Limit to 1000 rows
1  /* coding challenge 2*/
2
3  /*task1*/
4  • CREATE DATABASE IF NOT EXISTS CareerHub;
5  • USE CareerHub;
6
```

2,3, &4.

```
coding challenge 2_CareerHub x
Limit to 1000 rows
7  /*2,3,4 task*/
8  • CREATE TABLE IF NOT EXISTS Companies (
9      CompanyID INT PRIMARY KEY,
10     CompanyName VARCHAR(255),
11     Location VARCHAR(255)
12 );
13
14 • CREATE TABLE IF NOT EXISTS Jobs (
15     JobID INT PRIMARY KEY,
16     CompanyID INT,
17     JobTitle VARCHAR(255),
18     JobDescription TEXT,
19     JobLocation VARCHAR(255),
20     Salary DECIMAL,
21     JobType VARCHAR(50),
22     PostedDate DATETIME,
23     FOREIGN KEY (CompanyID) REFERENCES Companies(CompanyID)
24 );
25
26 • CREATE TABLE IF NOT EXISTS Applicants (
27     ApplicantID INT PRIMARY KEY,
28     FirstName VARCHAR(255),
29     LastName VARCHAR(255),
30     Email VARCHAR(255),
31     Phone VARCHAR(20),
32     Resume TEXT
33 );
34
35 • CREATE TABLE IF NOT EXISTS Applications (
36     ApplicationID INT PRIMARY KEY,
37     JobID INT,
38     ApplicantID INT,
39     ApplicationDate DATETIME,
40     CoverLetter TEXT,
41     FOREIGN KEY (JobID) REFERENCES Jobs(JobID),
42     FOREIGN KEY (ApplicantID) REFERENCES Applicants(ApplicantID)
43 );
```

## Data Insertion:

```
45 • INSERT INTO Companies (CompanyID, CompanyName, Location) VALUES
46 (1, 'ABC Corp', 'Mumbai'),
47 (2, 'XYZ Ltd', 'Bangalore'),
48 (3, 'Tech Innovators', 'Delhi');
49
50 • INSERT INTO Jobs (JobID, CompanyID, JobTitle, JobDescription, JobLocation, Salary, JobType, PostedDate) VALUES
51 (101, 1, 'Software Engineer', 'Develop software applications', 'Mumbai', 80000, 'Full-time', '2023-01-01'),
52 (102, 2, 'Data Analyst', 'Analyze and interpret data', 'Bangalore', 70000, 'Part-time', '2023-01-05'),
53 (103, 3, 'UX Designer', 'Design user interfaces', 'Delhi', 90000, 'Contract', '2023-01-10');
54
55 • INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resume) VALUES
56 (201, 'Rohan', 'Chaudhari', 'rohan@gmail.com', '987-654-3210', 'RohanChaudhari_Resume.pdf'),
57 (202, 'Rohit', 'Rajput', 'rohit@gmail.com', '123-456-7890', 'RohitRajput_Resume.doc');
58
59 • INSERT INTO Applications (ApplicationID, JobID, ApplicantID, ApplicationDate, CoverLetter) VALUES
60 (301, 101, 201, '2023-01-02', 'Cover letter for Software Engineer position'),
61 (302, 102, 202, '2023-01-06', 'Cover letter for Data Analyst position');
62
```

---

5.

coding challenge 2\_CareerHub

```
64 /*5 task*/
65 • SELECT Jobs.JobTitle, COUNT(Applications.ApplicationID) AS ApplicationCount
66 FROM Jobs
67 LEFT JOIN Applications ON Jobs.JobID = Applications.JobID
68 GROUP BY Jobs.JobID, Jobs.JobTitle;
69
```

Result Grid

JobTitle	ApplicationCount
Software Engineer	1
Data Analyst	1
UX Designer	0

Result 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:12:38	SELECT Jobs.JobTitle, COUNT(Applications.ApplicationID) AS ApplicationCount FROM Jobs LEFT JOIN Applications ON Jobs.JobID = Applications.JobID GROUP BY Jobs.JobID, Jobs.JobTitle;	3 row(s) returned	0.359 sec / 0.000 sec

6.

coding challenge 2\_CareerHub

```
70 /*6 task*/
71 • SELECT Jobs.JobTitle, Companies.CompanyName, Jobs.JobLocation, Jobs.Salary
72 FROM Jobs
73 JOIN Companies ON Jobs.CompanyID = Companies.CompanyID
74 WHERE Jobs.Salary BETWEEN 50000 AND 100000;
75
```

Result Grid

JobTitle	CompanyName	JobLocation	Salary
Software Engineer	ABC Corp	Mumbai	80000
Data Analyst	XYZ Ltd	Bangalore	70000
UX Designer	Tech Innovators	Delhi	90000

Result 2 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:13:22	SELECT Jobs.JobTitle, Companies.CompanyName, Jobs.JobLocation, Jobs.Salary FROM Jobs JOIN Companies ON Jobs.CompanyID = Companies.CompanyID WHERE Jobs.Salary BETWEEN 50000 AND 100000;	3 row(s) returned	0.000 sec / 0.000 sec

7.

The screenshot shows a SQL IDE interface with a query editor, a result grid, and an output pane. The query editor contains the following SQL code:

```
76  /* 7 task*/  
77  SELECT Jobs.JobTitle, Companies.CompanyName, Applications.ApplicationDate  
78  FROM Applications  
79  JOIN Jobs ON Applications.JobID = Jobs.JobID  
80  JOIN Companies ON Jobs.CompanyID = Companies.CompanyID  
81  WHERE Applications.ApplicantID = 201;  
82
```

The result grid displays the following data:

JobTitle	CompanyName	ApplicationDate
Software Engineer	ABC Corp	2023-01-02 00:00:00

The output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	22:13:22	SELECT Jobs.JobTitle, Companies.CompanyName, Jobs.JobLocation, Jobs.Salary FROM Jobs JOIN Companies...	3 row(s) returned	0.000 sec / 0.000 sec
2	22:13:49	SELECT Jobs.JobTitle, Companies.CompanyName, Applications.ApplicationDate FROM Applications JOIN Jobs ...	1 row(s) returned	0.000 sec / 0.000 sec

8.

The screenshot shows a SQL IDE interface with a query editor, a result grid, and an output pane. The query editor contains the following SQL code:

```
82  
83  /* 8 task*/  
84  SELECT AVG(Salary) AS AverageSalary  
85  FROM Jobs  
86  WHERE Salary > 0;  
87
```

The result grid displays the following data:

AverageSalary
80000.0000

The output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	22:14:23	SELECT AVG(Salary) AS AverageSalary FROM Jobs WHERE Salary > 0 LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

9.

coding challenge 2\_CareerHub

```

88 /*9 task*/
89 • SELECT Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount
90 FROM Companies
91 LEFT JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
92 GROUP BY Companies.CompanyID, Companies.CompanyName
93 ORDER BY JobCount DESC
94 LIMIT 1;

```

Result Grid

CompanyName	JobCount
ABC Corp	1

Result 5 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:15:12	SELECT Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount FROM Companies LEFT JOIN Jobs ON ...	1 row(s) returned	0.015 sec / 0.000 sec

10.

coding challenge 2\_CareerHub

```

96 /* 10 task*/
97 • alter table applicants add YearsofExperience int;
98
99 • SELECT DISTINCT Applicants.*
100 FROM Applicants
101 JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
102 JOIN Jobs ON Applications.JobID = Jobs.JobID
103 WHERE Jobs.JobLocation = 'CityX' AND YearsofExperience >= 3;
104 /* here i added a column for years of experience*/
105

```

Result Grid

ApplicantID	FirstName	LastName	Email	Phone	Resume	YearsofExperience	city	state
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Result 7 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:16:46	SELECT DISTINCT Applicants.* FROM Applicants JOIN Applications ON Applicants.ApplicantID = Applications...	0 row(s) returned	0.016 sec / 0.000 sec

11.

The screenshot shows a SQL IDE window titled "coding challenge 2\_CareerHub". The query editor contains the following SQL code:

```
105  
106  
107 /*11 task*/  
108 • SELECT DISTINCT JobTitle, Salary  
109 FROM Jobs  
110 WHERE Salary BETWEEN 60000 AND 80000;  
111  
112
```

The "Result Grid" shows the following data:

JobTitle	Salary
Software Engineer	80000
Data Analyst	70000

The "Output" pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	22:17:34	SELECT DISTINCT JobTitle, Salary FROM Jobs WHERE Salary BETWEEN 60000 AND 80000 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

12.

The screenshot shows a SQL IDE window titled "coding challenge 2\_CareerHub". The query editor contains the following SQL code:

```
112  
113 /*12 task*/  
114 • SELECT Jobs.*  
115 FROM Jobs  
116 LEFT JOIN Applications ON Jobs.JobID = Applications.JobID  
117 WHERE Applications.JobID IS NULL;  
118  
119
```

The "Result Grid" shows the following data:

JobID	CompanyID	JobTitle	JobDescription	JobLocation	Salary	JobType	PostedDate
103	3	UX Designer	Design user interfaces	Delhi	90000	Contract	2023-01-10 00:00:00

The "Output" pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	22:18:06	SELECT Jobs.* FROM Jobs LEFT JOIN Applications ON Jobs.JobID = Applications.JobID WHERE Applications.JobID IS NULL	1 row(s) returned	0.016 sec / 0.000 sec

13.

coding challenge 2\_CareerHub

```

119
120 /*13 task*/
121 • SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle
122 FROM Applicants
123 JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
124 JOIN Jobs ON Applications.JobID = Jobs.JobID
125 JOIN Companies ON Jobs.CompanyID = Companies.CompanyID;
126

```

Result Grid

FirstName	LastName	CompanyName	JobTitle
Rohan	Chaudhari	ABC Corp	Software Engineer
Rohit	Rajput	XYZ Ltd	Data Analyst

Result 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:18:40	SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle FROM Applicant...	2 row(s) returned	0.000 sec / 0.000 sec

14.

coding challenge 2\_CareerHub

```

128
129 /*14 task*/
130 • SELECT Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount
131 FROM Companies
132 LEFT JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
133 GROUP BY Companies.CompanyID, Companies.CompanyName;
134
135

```

Result Grid

CompanyName	JobCount
ABC Corp	1
XYZ Ltd	1
Tech Innovators	1

Result 11 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:19:24	SELECT Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount FROM Companies LEFT JOIN Jobs ON ...	3 row(s) returned	0.031 sec / 0.000 sec

15.

coding challenge 2\_CareerHub

Limit to 1000 rows

```

135
136 /*15 task*/
137 • SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle
138 FROM Applicants
139 LEFT JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
140 LEFT JOIN Jobs ON Applications.JobID = Jobs.JobID
141 LEFT JOIN Companies ON Jobs.CompanyID = Companies.CompanyID;
142

```

Result Grid

FirstName	LastName	CompanyName	JobTitle
Rohan	Chaudhari	ABC Corp	Software Engineer
Rohit	Rajput	XYZ Ltd	Data Analyst

Result 12 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:20:03	SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle FROM Applicant...	2 row(s) returned	0.015 sec / 0.000 sec

16.

coding challenge 2\_CareerHub

Limit to 1000 rows

```

142
143
144 /*16 task*/
145 • SELECT DISTINCT Companies.CompanyName
146 FROM Companies
147 JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
148 WHERE Jobs.Salary > (SELECT AVG(Salary) FROM Jobs WHERE Salary > 0);
149

```

Result Grid

CompanyName
Tech Innovators

Result 13 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:20:42	SELECT DISTINCT Companies.CompanyName FROM Companies JOIN Jobs ON Companies.CompanyID = Jobs...	1 row(s) returned	0.000 sec / 0.000 sec



17.

The screenshot shows a SQL IDE window titled "coding challenge 2\_CareerHub". The query editor contains the following SQL code:

```
150
151
152 /*17 task*/
153 • SELECT FirstName, LastName, CONCAT(city, ', ', state) AS Location
154   FROM Applicants;
155
156
157
```

The "Result Grid" shows the following data:

FirstName	LastName	Location
Rohan	Chaudhari	jalgaon, maharashtra
Rohit	Rajput	jalgaon, maharashtra

The "Output" pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	22:21:33	SELECT FirstName, LastName, CONCAT(city, ', ', state) AS Location FROM Applicants LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

18.

The screenshot shows a SQL IDE window titled "coding challenge 2\_CareerHub". The query editor contains the following SQL code:

```
157
158 /* 18 task*/
159 • SELECT *
160   FROM Jobs
161   WHERE JobTitle LIKE '%Developer%' OR JobTitle LIKE '%Engineer%';
162
163
164
```

The "Result Grid" shows the following data:

JobID	CompanyID	JobTitle	JobDescription	JobLocation	Salary	JobType	PostedDate
101	1	Software Engineer	Develop software applications	Mumbai	80000	Full-time	2023-01-01 00:00:00

The "Output" pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	22:22:02	SELECT * FROM Jobs WHERE JobTitle LIKE '%Developer%' OR JobTitle LIKE '%Engineer%' LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec

19.

coding challenge 2\_CareerHub

Limit to 1000 rows

```

164
165 /* 19 task*/
166 • SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle
167 FROM Applicants
168 LEFT JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
169 LEFT JOIN Jobs ON Applications.JobID = Jobs.JobID
170 LEFT JOIN Companies ON Jobs.CompanyID = Companies.CompanyID;
171

```

Result Grid

FirstName	LastName	CompanyName	JobTitle
Rohan	Chaudhari	ABC Corp	Software Engineer
Rohit	Rajput	XYZ Ltd	Data Analyst

Result 16

Output

#	Time	Action	Message	Duration / Fetch
1	22:22:33	SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName, Jobs.JobTitle FROM Applicant...	2 row(s) returned	0.000 sec / 0.000 sec

20.

coding challenge 2\_CareerHub

Limit to 1000 rows

```

171
172 /* 20 task*/
173 • SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName
174 FROM Applicants
175 CROSS JOIN Companies
176 WHERE Companies.Location = 'jalgaon' AND Applicants.YearsOfExperience > 2;
177
178

```

Result Grid

FirstName	LastName	CompanyName
-----------	----------	-------------

Result 17

Output

#	Time	Action	Message	Duration / Fetch
1	22:23:02	SELECT Applicants.FirstName, Applicants.LastName, Companies.CompanyName FROM Applicants CROSS JOI...	0 row(s) returned	0.000 sec / 0.000 sec