

## CODING CHALLENGE-2

### CAREERHUB, THE JOB BOARD

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1)

```
mysql> create database careerhub;  
Query OK, 1 row affected (0.03 sec)  
  
mysql> use careerhub;  
Database changed  
mysql>
```

2)

```
mysql> CREATE TABLE companies (  
    -> companyid INT,  
    -> companyname VARCHAR(20),  
    -> location VARCHAR(20),  
    -> PRIMARY KEY (`companyid`)  
    -> );  
Query OK, 0 rows affected (0.12 sec)
```

```
mysql> CREATE TABLE jobs (  
    -> jobid INT,  
    -> companyid INT,  
    -> jobtitle VARCHAR(30),  
    -> jobdescription TEXT,  
    -> joblocation INT,  
    -> salary DOUBLE,  
    -> jobtype VARCHAR(20),  
    -> posteddate DATE,  
    -> PRIMARY KEY (jobid),  
    -> FOREIGN KEY (companyid) REFERENCES companies(companyid)  
    -> );  
Query OK, 0 rows affected (0.10 sec)
```

```
mysql> CREATE TABLE applicants (
  -> applicantid INT,
  -> firstname VARCHAR(30),
  -> lastname VARCHAR(30),
  -> email VARCHAR(30),
  -> phone INT,
  -> resume TEXT,
  -> PRIMARY KEY (applicantid)
  -> );
Query OK, 0 rows affected (0.08 sec)
```

```
mysql> CREATE TABLE applications (
  -> applicationid INT,
  -> jobid INT,
  -> applicantid INT,
  -> applicationdate DATE,
  -> coverletter TEXT,
  -> PRIMARY KEY (applicationid),
  -> FOREIGN KEY (jobid) REFERENCES jobs(jobid),
  -> FOREIGN KEY (applicantid) REFERENCES applicants(applicantid)
  ->
  ->
  -> );
Query OK, 0 rows affected (0.08 sec)

mysql>
```

3)

```
mysql> desc jobs;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| jobid | int | NO | PRI | NULL | |
| companyid | int | YES | MUL | NULL | |
| jobtitle | varchar(30) | YES | | NULL | |
| jobdescription | text | YES | | NULL | |
| joblocation | varchar(20) | YES | | NULL | |
| salary | double | YES | | NULL | |
| jobtype | varchar(20) | YES | | NULL | |
| posteddate | date | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
(8 rows in set (0.01 sec))
```

4)

```
mysql> show tables;
+-----+
| Tables_in_careerhub |
+-----+
| applicants           |
| applications         |
| companies            |
| jobs                 |
+-----+
4 rows in set (0.04 sec)

mysql>
```

```
mysql> INSERT INTO companies (companyid, companyname, location)
-> VALUES ("01", "tcs", "delhi"),
-> ("02", "micron", "hyderabad"),
-> ("03", "adobe", "bangalore"),
-> ("04", "cts", "chennai"),
-> ("05", "sony", "pune")
-> ;
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO companies (companyid, companyname, location)
-> VALUES ("01", "tcs", "delhi"),
-> ("02", "micron", "hyderabad"),
-> ("03", "adobe", "bangalore"),
-> ("04", "cts", "chennai"),
-> ("05", "sony", "pune")
-> ;
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO jobs (jobid, companyid, jobtitle, jobdescription, joblocation, salary, jobtype, posteddate)
-> VALUES
-> ("11", "01", "sde", "software development", "delhi", "40000", "full-time", "2022-12-24"),
-> ("22", "02", "iot developer", "embedded programming", "hyderabad", "50000", "part-time", "2023-06-22"),
-> ("33", "04", "devops", "aws and azure operation", "hyderabad", "80000", "full-time", "2023-04-14"),
-> ("44", "03", "sdet", "testing", "chennai", "70000", "full-time", "2023-07-06"),
-> ("55", "05", "QAops", "quality assurance", "pune", "30000", "contract", "2023-07-19")
-> ;
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO applicants (applicantid,firstname,lastname,email,phone,resume)
-> VALUES
-> (45,"Rudyard","Monroe","mmonroe@google.couk","551-0051","resume1"),
-> (25,"Cole","Terrell","jterrell4404@aol.org","696-5957"," resume2"),
-> (47,"Marshall","Greene","h-greene1109@icloud.com","1-813-549-8311"," resume3"),
-> (50,"Seth","Cline","cline_fatima8631@icloud.org","1-867-316-2645"," resume4"),
-> (35,"Clark","Cantrell","cantrell-fritz@outlook.couk","1-337-427-9732"," resume5");
ERROR 1265 (01000): Data truncated for column 'phone' at row 1
mysql> alter table applicants modify phone varchar(30);
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO applications (applicationid, jobid, applicantid, applicationdate, coverletter)
-> VALUES
-> ("321", "11", "45", "2023-03-05", "cover1"),
-> ("543", "22", "25", "2023-11-14", "cover2"),
-> ("864", "33", "47", "2023-09-25", "cover3"),
-> ("245", "44", "50", "2023-10-30", "cover4"),
-> ("657", "55", "35", "2023-12-06", "cover5") ;
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

5)

```
mysql> select count(applications.applicationid),jobs.jobtitle from jobs,applications where jobs.jobid
=applications.jobid group by jobs.jobid;
```

count(applications.applicationid)	jobtitle
1	sde
1	iot developer
1	devops
1	sdet
1	QAops

5 rows in set (0.00 sec)

6)

```
mysql> select companies.companyname,jobs.jobtitle,jobs.joblocation,jobs.salary from companies,jobs wh
ere jobs.salary between 20000 and 50000 and jobs.companyid=companies.companyid;
```

companyname	jobtitle	joblocation	salary
tcs	sde	delhi	40000
micron	iot developer	hyderabad	50000
sony	QAops	pune	30000

3 rows in set (0.00 sec)

7)

```
mysql> select jobs.jobtitle,companies.companyname,applications.applicationdate from companies,jobs,ap
plications where companies.companyid=jobs.companyid and applications.jobid=jobs.jobid and applicati
s.applicantid=47;
+-----+-----+-----+
| jobtitle | companyname | applicationdate |
+-----+-----+-----+
| devops   | cts         | 2023-09-25     |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

8)

```
mysql> select companies.companyid,companies.companyname,avg(jobs.salary) from jobs,companies where co
mpanies.companyid=jobs.companyid group by companies.companyid;
+-----+-----+-----+
| companyid | companyname | avg(jobs.salary) |
+-----+-----+-----+
| 1         | tcs         | 40000            |
| 2         | micron      | 50000            |
| 4         | cts         | 80000            |
| 3         | adobe       | 70000            |
| 5         | sony        | 30000            |
+-----+-----+-----+
5 rows in set (0.01 sec)
```

9)

```
mysql> select companies.companyid,companies.companyname,count(jobs.jobtitle) from jobs,companies wher
e companies.companyid=jobs.companyid group by companies.companyid;
+-----+-----+-----+
| companyid | companyname | count(jobs.jobtitle) |
+-----+-----+-----+
| 1         | tcs         | 1                   |
| 2         | micron      | 1                   |
| 4         | cts         | 1                   |
| 3         | adobe       | 1                   |
| 5         | sony        | 1                   |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

10)

```
mysql> select applicants.firstname,applicants.lastname from applicants,applications,companies,jobs wh
ere jobs.joblocation="chennai" and applications.jobid=jobs.jobid and applications.applicantid=applica
nts.applicantid;
+-----+-----+
| firstname | lastname |
+-----+-----+
| Seth      | Cline    |
+-----+-----+
```

11)

```
mysql> select distinct(jobtitle) from jobs where salary between 60000 and 80000;
+-----+
| jobtitle |
+-----+
| devops   |
| sdet     |
+-----+
2 rows in set (0.00 sec)
```

12)

```
mysql> SELECT j.jobid, j.jobtitle
-> FROM jobs j
-> LEFT JOIN applications a ON j.jobid = a.jobid
-> WHERE a.jobid IS NULL;
Empty set (0.03 sec)

mysql>
```

13)

```
mysql> select applicants.firstname,applicants.lastname ,companies.companyname,jobs.jobtitle from comp
anies,jobs,applicants,applications where companies.companyid=jobs.companyid and applications.jobid=jo
bs.jobid and applications.applicantid=applicants.applicantid;
+-----+
| firstname | lastname | companyname | jobtitle |
+-----+
| Rudyard   | Monroe   | tcs          | sde      |
| Cole      | Terrell  | micron       | iot developer |
| Seth      | Cline    | adobe        | sdet     |
| Marshall  | Greene   | cts          | devops   |
| Clark     | Cantrell | sony         | QAops    |
+-----+
5 rows in set (0.00 sec)
```

14)

```
mysql> select companies.companyid,companies.companyname,count(jobs.jobtitle) from companies,jobs wher
e companies.companyid=jobs.companyid group by companies.companyid;
+-----+
| companyid | companyname | count(jobs.jobtitle) |
+-----+
| 1          | tcs          | 1                     |
| 2          | micron       | 1                     |
| 3          | adobe        | 1                     |
| 4          | cts          | 1                     |
| 5          | sony         | 1                     |
+-----+
5 rows in set (0.00 sec)
```

15)

```
mysql> select applicants.firstname,applicants.lastname ,companies.companyname,jobs.jobtitle from comp
anies,jobs,applicants,applications where companies.companyid=jobs.companyid and applications.jobid=jo
bs.jobid and applications.applicantid=applicants.applicantid;
+-----+
| firstname | lastname | companyname | jobtitle |
+-----+
| Rudyard   | Monroe   | tcs          | sde      |
| Cole      | Terrell  | micron       | iot developer |
| Seth      | Cline    | adobe        | sdet     |
| Marshall  | Greene   | cts          | devops   |
| Clark     | Cantrell | sony         | QAops    |
+-----+
5 rows in set (0.00 sec)
```

16)

```
mysql> select companies.companyname,jobs.jobtitle from jobs,companies where jobs.companyid=companies
.companyid and jobs.salary>(select avg(jobs.salary) from jobs);
+-----+-----+
| companyname | jobtitle |
+-----+-----+
| cts         | devops   |
| adobe       | sdet     |
+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

17)

```
mysql> select concat(firstname,lastname),applicantid from applicants;
+-----+-----+
| concat(firstname,lastname) | applicantid |
+-----+-----+
| ColeTerrell                | 25          |
| ClarkCantrell              | 35          |
| RudyardMonroe              | 45          |
| MarshallGreene             | 47          |
| SethCline                  | 50          |
+-----+-----+
5 rows in set (0.01 sec)
```

18)

```
mysql> select jobtitle from jobs where jobtitle like '%developer' or jobtitle like '%engineer' ;
+-----+
| jobtitle |
+-----+
| iot developer |
+-----+
1 row in set (0.00 sec)
```

19)

```
mysql> SELECT a.applicantid,a.firstname,a.lastname,j.jobid,j.jobtitle,j.joblocation,ap.applicat
ionid FROM applicants a CROSS JOIN jobs j LEFT JOIN applications ap ON a.applicantid = ap.appli
cantid AND j.jobid = ap.jobid;
+-----+-----+-----+-----+-----+-----+-----+
| applicantid | firstname | lastname | jobid | jobtitle | joblocation | applicationid |
+-----+-----+-----+-----+-----+-----+-----+
| 50 | Seth | Cline | 11 | sde | delhi | NULL |
| 47 | Marshall | Greene | 11 | sde | delhi | NULL |
| 45 | Rudyard | Monroe | 11 | sde | delhi | 321 |
| 35 | Clark | Cantrell | 11 | sde | delhi | NULL |
| 25 | Cole | Terrell | 11 | sde | delhi | NULL |
| 50 | Seth | Cline | 22 | iot developer | hyderabad | NULL |
| 47 | Marshall | Greene | 22 | iot developer | hyderabad | NULL |
| 45 | Rudyard | Monroe | 22 | iot developer | hyderabad | NULL |
| 35 | Clark | Cantrell | 22 | iot developer | hyderabad | NULL |
| 25 | Cole | Terrell | 22 | iot developer | hyderabad | 543 |
| 50 | Seth | Cline | 33 | devops | hyderabad | NULL |
| 47 | Marshall | Greene | 33 | devops | hyderabad | 864 |
| 45 | Rudyard | Monroe | 33 | devops | hyderabad | NULL |
| 35 | Clark | Cantrell | 33 | devops | hyderabad | NULL |
| 25 | Cole | Terrell | 33 | devops | hyderabad | NULL |
| 50 | Seth | Cline | 44 | sdet | chennai | 245 |
| 47 | Marshall | Greene | 44 | sdet | chennai | NULL |
```

20)

```
mysql> select applicants.firstname,applicants.lastname ,companies.companyname,jobs.jobtitle from com
panies,jobs,applicants,applications where jobs.joblocation like '%chennai' and companies.companyid=j
obs.companyid and applications.jobid=jobs.jobid and applications.applicantid=applicants.applicantid;

+-----+-----+-----+-----+
| firstname | lastname | companyname | jobtitle |
+-----+-----+-----+-----+
| Seth      | Cline    | adobe       | sdet     |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```