```
MySQL 8.0 Command Line Client                                                    —    □    ×

mysql> /*CODING CHALLENGE-2*/
mysql> /*CareerHub, The Job Board*/
mysql> /*Tasks:*/
mysql>
mysql> /*1. Provide a SQL script that initializes the database for the Job Board scenario "CareerHub"*/
mysql> CREATE DATABASE IF NOT EXISTS CareerHub;
Query OK, 1 row affected, 1 warning (0.00 sec)

mysql> use careerhub;
Database changed
mysql> /*2. Create tables for Companies, Jobs, Applicants and Applications*/
mysql> /*Companies*/
mysql> CREATE TABLE Companies (
    ->     CompanyID INT PRIMARY KEY,
    ->     CompanyName VARCHAR(255),
    ->     Location VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.14 sec)

mysql> desc companies;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| CompanyID   | int          | NO   | PRI | NULL    |       |
| CompanyName | varchar(255) | YES  |     | NULL    |       |
| Location    | varchar(255) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
3 rows in set (0.02 sec)

mysql> /*JOBS*/
mysql> CREATE TABLE Jobs (
    ->     JobID INT PRIMARY KEY,
    ->     CompanyID INT,
    ->     JobTitle VARCHAR(255),
    ->     JobDescription TEXT,
    ->     JobLocation VARCHAR(255),
    ->     Salary DECIMAL,
    ->     JobType VARCHAR(255),
    ->     PostedDate DATETIME,
    ->     FOREIGN KEY (CompanyID) REFERENCES Companies(CompanyID)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql> DESC jobs;
```
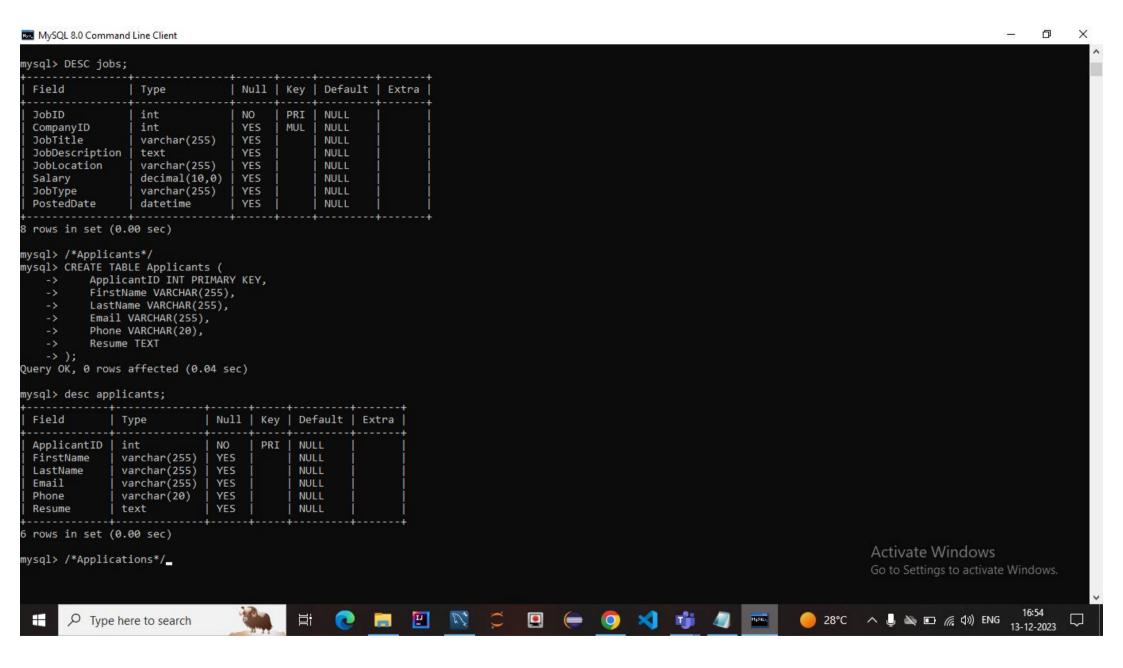
```
mysql> DESC jobs;
+----------------+---------------+------+-----+---------+-------+
| Field          | Type          | Null | Key | Default | Extra |
+----------------+---------------+------+-----+---------+-------+
| JobID          | int           | NO   | PRI | NULL    |       |
| CompanyID      | int           | YES  | MUL | NULL    |       |
| JobTitle       | varchar(255)  | YES  |     | NULL    |       |
| JobDescription | text          | YES  |     | NULL    |       |
| JobLocation    | varchar(255)  | YES  |     | NULL    |       |
| Salary         | decimal(10,0) | YES  |     | NULL    |       |
| JobType        | varchar(255)  | YES  |     | NULL    |       |
| PostedDate     | datetime      | YES  |     | NULL    |       |
+----------------+---------------+------+-----+---------+-------+
8 rows in set (0.00 sec)

mysql> /*Applicants*/
mysql> CREATE TABLE Applicants (
    ->     ApplicantID INT PRIMARY KEY,
    ->     FirstName VARCHAR(255),
    ->     LastName VARCHAR(255),
    ->     Email VARCHAR(255),
    ->     Phone VARCHAR(20),
    ->     Resume TEXT
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql> desc applicants;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| ApplicantID | int          | NO   | PRI | NULL    |       |
| FirstName   | varchar(255) | YES  |     | NULL    |       |
| LastName    | varchar(255) | YES  |     | NULL    |       |
| Email       | varchar(255) | YES  |     | NULL    |       |
| Phone       | varchar(20)  | YES  |     | NULL    |       |
| Resume      | text         | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)

mysql> /*Applications*/
```

```
MySQL 8.0 Command Line Client                                                    —    □    ×

mysql> -- Insert 10 Indian records into Companies table
mysql> INSERT INTO Companies (CompanyID, CompanyName, Location) VALUES
    -> (11, 'Tech Solutions India', 'Delhi'),
    -> (12, 'Innovate IT Services', 'Chennai'),
    -> (13, 'FutureTech Innovations', 'Mumbai'),
    -> (14, 'Web Wizards', 'Bangalore'),
    -> (15, 'Data Dynamics', 'Hyderabad'),
    -> (16, 'CloudCrafters', 'Pune'),
    -> (17, 'Mobile Marvels', 'Jaipur'),
    -> (18, 'EduTech Solutions', 'Kolkata'),
    -> (19, 'HealthHub Technologies', 'Ahmedabad'),
    -> (20, 'GreenTech Innovations', 'Chandigarh');
Query OK, 10 rows affected (0.02 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from companies;
+-----------+------------------------+------------+
| CompanyID | CompanyName            | Location   |
+-----------+------------------------+------------+
|        11 | Tech Solutions India   | Delhi      |
|        12 | Innovate IT Services   | Chennai    |
|        13 | FutureTech Innovations | Mumbai     |
|        14 | Web Wizards            | Bangalore  |
|        15 | Data Dynamics          | Hyderabad  |
|        16 | CloudCrafters          | Pune       |
|        17 | Mobile Marvels         | Jaipur     |
|        18 | EduTech Solutions      | Kolkata    |
|        19 | HealthHub Technologies | Ahmedabad  |
|        20 | GreenTech Innovations  | Chandigarh |
+-----------+------------------------+------------+
10 rows in set (0.00 sec)

mysql> INSERT INTO Jobs (JobID, CompanyID, JobTitle, JobDescription, JobLocation, Salary, JobType, PostedDate) VALUES
    -> (101, 14, 'Software Engineer', 'Description for Software Engineer position in Bangalore', 'Bangalore', 100000, 'Full-time', '2023-03-01 09:30:00'),
    -> (102, 12, 'Big Data Analyst', 'Description for Big Data Analyst position in Mumbai', 'Mumbai', 110000, 'Full-time', '2023-03-02 10:45:00'),
    -> (103, 16, 'Mobile App Developer', 'Description for Mobile App Developer position in Hyderabad', 'Hyderabad', 95000, 'Contract', '2023-03-03 11:30:00'),
    -> (104, 14, 'Network Administrator', 'Description for Network Administrator position in Bangalore', 'Bangalore', 90000, 'Part-time', '2023-03-04 12:00:00'),
    -> (105, 15, 'AI Research Scientist', 'Description for AI Research Scientist position in Mumbai', 'Mumbai', 130000, 'Full-time', '2023-03-05 13:15:00'),
    -> (106, 13, 'Web Developer', 'Description for Web Developer position in Hyderabad', 'Hyderabad', 85000, 'Contract', '2023-03-06 14:30:00'),
    -> (107, 11, 'Business Analyst', 'Description for Business Analyst position in Bangalore', 'Bangalore', 96000, 'Full-time', '2023-03-07 15:45:00'),
    -> (108, 19, 'Database Administrator', 'Description for Database Administrator position in Mumbai', 'Mumbai', 92000, 'Part-time', '2023-03-08 16:30:00'),
    -> (109, 20, 'DevOps Engineer', 'Description for DevOps Engineer position in Hyderabad', 'Hyderabad', 98000, 'Contract', '2023-03-09 17:45:00'),
    -> (110, 17, 'UI/UX Designer', 'Description for UI/UX Designer position in Bangalore', 'Bangalore', 88000, 'Full-time', '2023-03-10 18:00:00');
Query OK, 10 rows affected (0.02 sec)
```

```
mysql> INSERT INTO Applicants (ApplicantID, FirstName, LastName, Email, Phone, Resume) VALUES
    -> (51, 'Kiran', 'Patel', 'kiran.patel@example.com', '7894561230', 'Resume for Kiran Patel'),
    -> (52, 'Neha', 'Singh', 'neha.singh@example.com', '9876543210', 'Resume for Neha Singh'),
    -> (53, 'Vikram', 'Rajput', 'vikram.rajput@example.com', '8765432109', 'Resume for Vikram Rajput'),
    -> (54, 'Ananya', 'Mishra', 'ananya.mishra@example.com', '7890123456', 'Resume for Ananya Mishra'),
    -> (55, 'Raj', 'Verma', 'raj.verma@example.com', '9876543210', 'Resume for Raj Verma'),
    -> (56, 'Meera', 'Reddy', 'meera.reddy@example.com', '8765432109', 'Resume for Meera Reddy'),
    -> (57, 'Alok', 'Gupta', 'alok.gupta@example.com', '7890123456', 'Resume for Alok Gupta'),
    -> (58, 'Swati', 'Sharma', 'swati.sharma@example.com', '9876543210', 'Resume for Swati Sharma'),
    -> (59, 'Amitabh', 'Singh', 'amitabh.singh@example.com', '8765432109', 'Resume for Amitabh Singh'),
    -> (80, 'Pooja', 'Yadav', 'pooja.yadav@example.com', '7890123456', 'Resume for Pooja Yadav');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from applicant;
ERROR 1146 (42S02): Table 'careerhub.applicant' doesn't exist
mysql> select * from applicants;
+-------------+-----------+----------+-----------------------------+------------+---------------------------+
| ApplicantID | FirstName | LastName | Email                       | Phone      | Resume                    |
+-------------+-----------+----------+-----------------------------+------------+---------------------------+
|          51 | Kiran     | Patel    | kiran.patel@example.com     | 7894561230 | Resume for Kiran Patel    |
|          52 | Neha      | Singh    | neha.singh@example.com      | 9876543210 | Resume for Neha Singh     |
|          53 | Vikram    | Rajput   | vikram.rajput@example.com   | 8765432109 | Resume for Vikram Rajput  |
|          54 | Ananya    | Mishra   | ananya.mishra@example.com   | 7890123456 | Resume for Ananya Mishra  |
|          55 | Raj       | Verma    | raj.verma@example.com       | 9876543210 | Resume for Raj Verma      |
|          56 | Meera     | Reddy    | meera.reddy@example.com     | 8765432109 | Resume for Meera Reddy    |
|          57 | Alok      | Gupta    | alok.gupta@example.com      | 7890123456 | Resume for Alok Gupta     |
|          58 | Swati     | Sharma   | swati.sharma@example.com    | 9876543210 | Resume for Swati Sharma   |
|          59 | Amitabh   | Singh    | amitabh.singh@example.com   | 8765432109 | Resume for Amitabh Singh  |
|          80 | Pooja     | Yadav    | pooja.yadav@example.com     | 7890123456 | Resume for Pooja Yadav    |
+-------------+-----------+----------+-----------------------------+------------+---------------------------+
10 rows in set (0.00 sec)

mysql> INSERT INTO Applications (ApplicationID, JobID, ApplicantID, ApplicationDate, CoverLetter) VALUES
    -> (151, 104, 54, '2023-02-10 14:15:00', 'Cover letter for Java Developer position'),
    -> (152, 105,55, '2023-02-11 15:30:00', 'Cover letter for Data Scientist position'),
    -> (153, 106, 56, '2023-02-12 16:45:00', 'Cover letter for UI/UX Designer position'),
    -> (154, 104, 53, '2023-02-13 17:30:00', 'Cover letter for Java Developer position'),
    -> (155, 105, 56, '2023-02-14 18:45:00', 'Cover letter for Data Scientist position'),
    -> (156, 106, 54, '2023-02-15 19:30:00', 'Cover letter for UI/UX Designer position'),
    -> (157, 104, 56, '2023-02-16 20:45:00', 'Cover letter for Java Developer position'),
    -> (158, 108, 54, '2023-02-17 21:30:00', 'Cover letter for Data Scientist position'),
    -> (159, 109, 53, '2023-02-18 22:45:00', 'Cover letter for UI/UX Designer position'),
    -> (160, 108, 59, '2023-02-19 23:30:00', 'Cover letter for Java Developer position');
```

```
MySQL 8.0 Command Line Client                                            —    ☐    ✕

Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from applications;
+---------------+-------+-------------+---------------------+-------------------------------------------+
| ApplicationID | JobID | ApplicantID | ApplicationDate     | CoverLetter                               |
+---------------+-------+-------------+---------------------+-------------------------------------------+
|           151 |   104 |          54 | 2023-02-10 14:15:00 | Cover letter for Java Developer position  |
|           152 |   105 |          55 | 2023-02-11 15:30:00 | Cover letter for Data Scientist position  |
|           153 |   106 |          56 | 2023-02-12 16:45:00 | Cover letter for UI/UX Designer position  |
|           154 |   104 |          53 | 2023-02-13 17:30:00 | Cover letter for Java Developer position  |
|           155 |   105 |          56 | 2023-02-14 18:45:00 | Cover letter for Data Scientist position  |
|           156 |   106 |          54 | 2023-02-15 19:30:00 | Cover letter for UI/UX Designer position  |
|           157 |   104 |          56 | 2023-02-16 20:45:00 | Cover letter for Java Developer position  |
|           158 |   108 |          54 | 2023-02-17 21:30:00 | Cover letter for Data Scientist position  |
|           159 |   109 |          53 | 2023-02-18 22:45:00 | Cover letter for UI/UX Designer position  |
|           160 |   108 |          59 | 2023-02-19 23:30:00 | Cover letter for Java Developer position  |
+---------------+-------+-------------+---------------------+-------------------------------------------+
10 rows in set (0.00 sec)

mysql> /*5. Write an SQL query to count the number of applications received for each job listing in the
   /*> "Jobs" table. Display the job title and the corresponding application count. Ensure that it lists all
   /*> jobs, even if they have no applications.*/
mysql> SELECT Jobs.JobID, Jobs.JobTitle, COUNT(Applications.ApplicationID) AS ApplicationCount
    -> FROM Jobs
    -> LEFT JOIN Applications ON Jobs.JobID = Applications.JobID
    -> GROUP BY Jobs.JobID, Jobs.JobTitle;
+-------+------------------------+------------------+
| JobID | JobTitle               | ApplicationCount |
+-------+------------------------+------------------+
|   101 | Software Engineer      |                0 |
|   102 | Big Data Analyst       |                0 |
|   103 | Mobile App Developer   |                0 |
|   104 | Network Administrator  |                3 |
|   105 | AI Research Scientist  |                2 |
|   106 | Web Developer          |                2 |
|   107 | Business Analyst       |                0 |
|   108 | Database Administrator |                2 |
|   109 | DevOps Engineer        |                1 |
|   110 | UI/UX Designer         |                0 |
+-------+------------------------+------------------+
10 rows in set (0.00 sec)

mysql>
```

```
mysql> /*6.Develop an SQL query that retrieves job listings from the "Jobs" table within a specified salary
    /*> range. Allow parameters for the minimum and maximum salary values. Display the job title,
    /*> company name, location, and salary for each matching job.*/
mysql> SELECT Jobs.JobTitle, Companies.CompanyName, Jobs.JobLocation, Jobs.Salary
    -> FROM Jobs
    -> INNER JOIN Companies ON Jobs.CompanyID = Companies.CompanyID
    -> WHERE Jobs.Salary BETWEEN 50000 AND 100000;
+------------------------+------------------------+-------------+--------+
| JobTitle               | CompanyName            | JobLocation | Salary |
+------------------------+------------------------+-------------+--------+
| Software Engineer      | Web Wizards            | Bangalore   | 100000 |
| Mobile App Developer   | CloudCrafters          | Hyderabad   |  95000 |
| Network Administrator  | Web Wizards            | Bangalore   |  90000 |
| Web Developer          | FutureTech Innovations | Hyderabad   |  85000 |
| Business Analyst       | Tech Solutions India   | Bangalore   |  96000 |
| Database Administrator | HealthHub Technologies | Mumbai      |  92000 |
| DevOps Engineer        | GreenTech Innovations  | Hyderabad   |  98000 |
| UI/UX Designer         | Mobile Marvels         | Bangalore   |  88000 |
+------------------------+------------------------+-------------+--------+
8 rows in set (0.00 sec)

mysql> /*7. Write an SQL query that retrieves the job application history for a specific applicant. Allow a
    /*> parameter for the ApplicantID, and return a result set with the job titles, company names, and
    /*> application dates for all the jobs the applicant has applied to*/
mysql> SELECT Jobs.JobTitle, Companies.CompanyName, Applications.ApplicationDate
    -> FROM Applications
    -> INNER JOIN Jobs ON Applications.JobID = Jobs.JobID
    -> INNER JOIN Companies ON Jobs.CompanyID = Companies.CompanyID
    -> WHERE Applications.ApplicantID = 51;
Empty set (0.00 sec)

mysql> /*Create an SQL query that calculates and displays the average salary offered by all companies for
    /*> job listings in the "Jobs" table. Ensure that the query filters out jobs with a salary of zero*/
mysql> SELECT AVG(Jobs.Salary) AS AverageSalary
    -> FROM Jobs
    -> WHERE Jobs.Salary > 0;
+---------------+
| AverageSalary |
+---------------+
|    98400.0000 |
+---------------+
1 row in set (0.00 sec)

mysql>
```

```
mysql> /*9. Write an SQL query to identify the company that has posted the most job listings. Display the
    /*> company name along with the count of job listings they have posted. Handle ties if multiple
    /*> companies have the same maximum count.*/
mysql> SELECT Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount
    -> FROM Companies
    -> LEFT JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
    -> GROUP BY Companies.CompanyID, Companies.CompanyName
    -> ORDER BY JobCount DESC
    -> LIMIT 1;
+-------------+----------+
| CompanyName | JobCount |
+-------------+----------+
| Web Wizards |        2 |
+-------------+----------+
1 row in set (0.00 sec)

mysql> /*11. Retrieve a list of distinct job titles with salaries between $60,000 and $80,000*/
mysql> SELECT DISTINCT JobTitle, Salary
    -> FROM Jobs
    -> WHERE Salary BETWEEN 60000 AND 80000;
Empty set (0.00 sec)

mysql> /*12. Find the jobs that have not received any applications.*/
mysql> SELECT Jobs.JobID, Jobs.JobTitle
    -> FROM Jobs
    -> LEFT JOIN Applications ON Jobs.JobID = Applications.JobID
    -> WHERE Applications.ApplicationID IS NULL;
+-------+----------------------+
| JobID | JobTitle             |
+-------+----------------------+
|   101 | Software Engineer    |
|   102 | Big Data Analyst     |
|   103 | Mobile App Developer |
|   107 | Business Analyst     |
|   110 | UI/UX Designer       |
+-------+----------------------+
5 rows in set (0.00 sec)

mysql>
```

Activate Windows
Go to Settings to activate Windows.

```
5 rows in set (0.00 sec)

mysql> /*13. Retrieve a list of job applicants along with the companies they have applied to and the positions
    /*> they have applied for.*/
mysql> SELECT Applicants.ApplicantID, Applicants.FirstName, Applicants.LastName,
    ->        Companies.CompanyName, Jobs.JobTitle
    -> FROM Applicants
    -> INNER JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
    -> INNER JOIN Jobs ON Applications.JobID = Jobs.JobID
    -> INNER JOIN Companies ON Jobs.CompanyID = Companies.CompanyID;
+-------------+-----------+----------+-----------------------+-----------------------+
| ApplicantID | FirstName | LastName | CompanyName           | JobTitle              |
+-------------+-----------+----------+-----------------------+-----------------------+
|          53 | Vikram    | Rajput   | Web Wizards           | Network Administrator |
|          53 | Vikram    | Rajput   | GreenTech Innovations | DevOps Engineer       |
|          54 | Ananya    | Mishra   | Web Wizards           | Network Administrator |
|          54 | Ananya    | Mishra   | FutureTech Innovations| Web Developer         |
|          54 | Ananya    | Mishra   | HealthHub Technologies| Database Administrator |
|          55 | Raj       | Verma    | Data Dynamics         | AI Research Scientist |
|          56 | Meera     | Reddy    | FutureTech Innovations| Web Developer         |
|          56 | Meera     | Reddy    | Data Dynamics         | AI Research Scientist |
|          56 | Meera     | Reddy    | Web Wizards           | Network Administrator |
|          59 | Amitabh   | Singh    | HealthHub Technologies| Database Administrator |
+-------------+-----------+----------+-----------------------+-----------------------+
10 rows in set (0.00 sec)

mysql> /*14. Retrieve a list of companies along with the count of jobs they have posted, even if they have not
    /*> received any applications*/
mysql> -- Query to retrieve companies with the count of jobs they have posted
mysql> SELECT Companies.CompanyID, Companies.CompanyName, COUNT(Jobs.JobID) AS JobCount
    -> FROM Companies
    -> LEFT JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
    -> GROUP BY Companies.CompanyID, Companies.CompanyName;
+-----------+-----------------------+----------+
| CompanyID | CompanyName           | JobCount |
+-----------+-----------------------+----------+
|        11 | Tech Solutions India  |        1 |
|        12 | Innovate IT Services  |        1 |
|        13 | FutureTech Innovations |       1 |
|        14 | Web Wizards           |        2 |
|        15 | Data Dynamics         |        1 |
|        16 | CloudCrafters         |        1 |
|        17 | Mobile Marvels        |        1 |
|        18 | EduTech Solutions     |        0 |
```

```
10 rows in set (0.00 sec)

mysql> /*15. List all applicants along with the companies and positions they have applied for, including those
    /*> who have not applied.
    /*> */
mysql> SELECT Applicants.ApplicantID, Applicants.FirstName, Applicants.LastName,
    ->          Companies.CompanyName, Jobs.JobTitle
    -> FROM Applicants
    -> LEFT JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
    -> LEFT JOIN Jobs ON Applications.JobID = Jobs.JobID
    -> LEFT JOIN Companies ON Jobs.CompanyID = Companies.CompanyID;
+-------------+-----------+----------+------------------------+------------------------+
| ApplicantID | FirstName | LastName | CompanyName            | JobTitle               |
+-------------+-----------+----------+------------------------+------------------------+
|          51 | Kiran     | Patel    | NULL                   | NULL                   |
|          52 | Neha      | Singh    | NULL                   | NULL                   |
|          53 | Vikram    | Rajput   | Web Wizards            | Network Administrator  |
|          53 | Vikram    | Rajput   | GreenTech Innovations  | DevOps Engineer        |
|          54 | Ananya    | Mishra   | Web Wizards            | Network Administrator  |
|          54 | Ananya    | Mishra   | FutureTech Innovations | Web Developer          |
|          54 | Ananya    | Mishra   | HealthHub Technologies | Database Administrator |
|          55 | Raj       | Verma    | Data Dynamics          | AI Research Scientist  |
|          56 | Meera     | Reddy    | FutureTech Innovations | Web Developer          |
|          56 | Meera     | Reddy    | Data Dynamics          | AI Research Scientist  |
|          56 | Meera     | Reddy    | Web Wizards            | Network Administrator  |
|          57 | Alok      | Gupta    | NULL                   | NULL                   |
|          58 | Swati     | Sharma   | NULL                   | NULL                   |
|          59 | Amitabh   | Singh    | HealthHub Technologies | Database Administrator |
|          80 | Pooja     | Yadav    | NULL                   | NULL                   |
+-------------+-----------+----------+------------------------+------------------------+
15 rows in set (0.00 sec)

mysql> /*16. Find companies that have posted jobs with a salary higher than the average salary of all jobs*/
mysql> SELECT DISTINCT Companies.CompanyID, Companies.CompanyName
    -> FROM Companies
    -> INNER JOIN Jobs ON Companies.CompanyID = Jobs.CompanyID
    -> WHERE Jobs.Salary > (SELECT AVG(Salary) FROM Jobs);
+-----------+----------------------+
| CompanyID | CompanyName          |
+-----------+----------------------+
|        14 | Web Wizards          |
|        12 | Innovate IT Services |
|        15 | Data Dynamics        |
+-----------+----------------------+
```
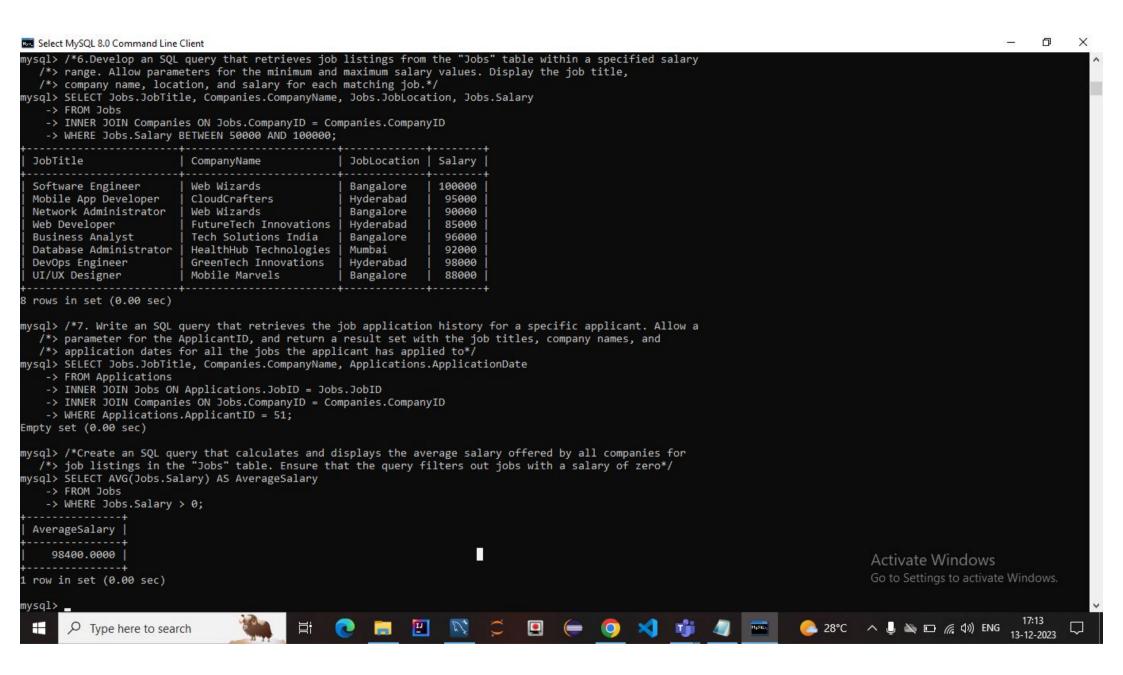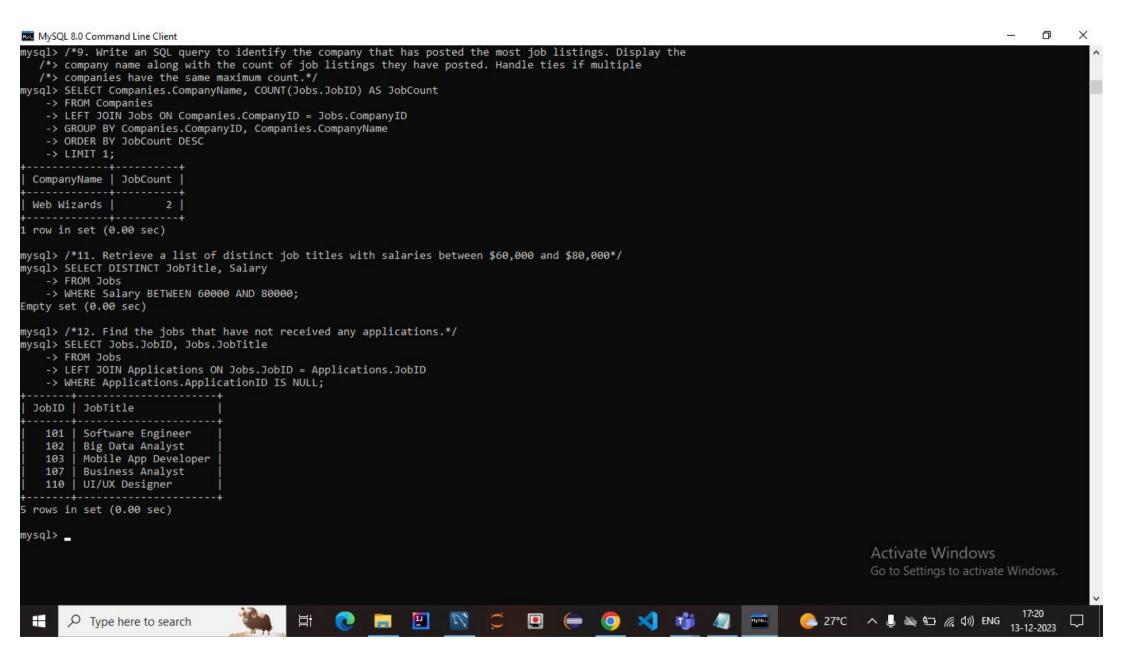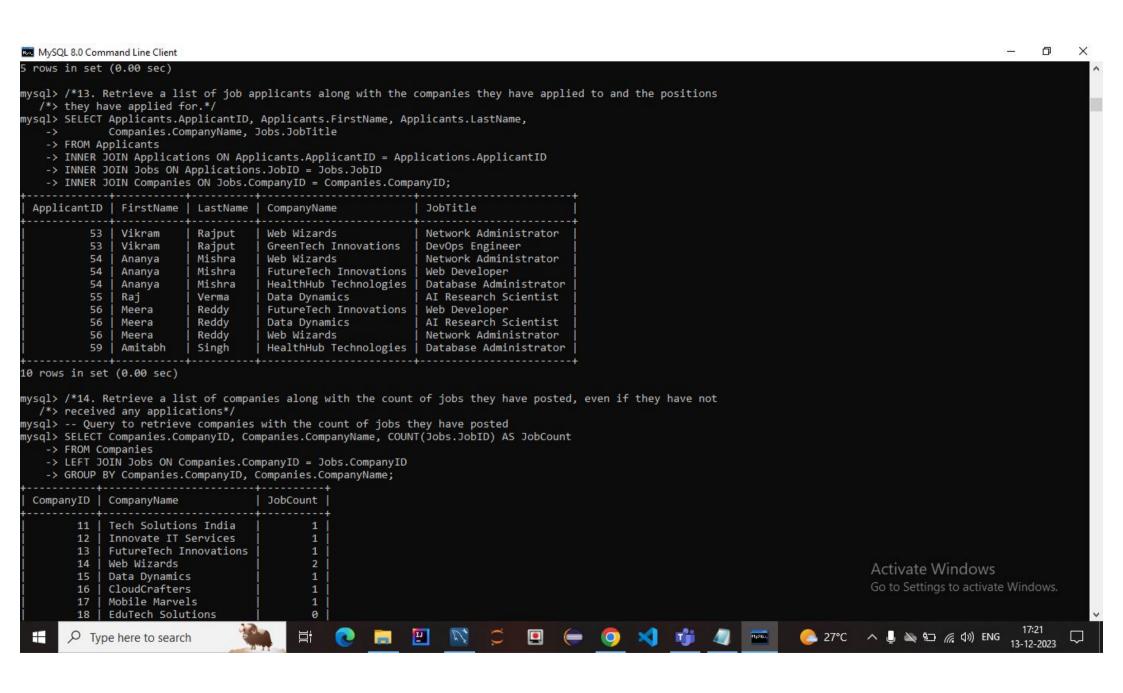
```
MySQL 8.0 Command Line Client                                                    —    □    ×

mysql> /*17. Display a list of applicants with their names and a concatenated string of their city and state*/
mysql> SELECT
    ->        ApplicantID,
    ->        CONCAT(FirstName, ' ', LastName) AS FullName,
    ->        CONCAT(COALESCE(City, ''), ', ', COALESCE(State, '')) AS CityState
    -> FROM Applicants;
ERROR 1054 (42S22): Unknown column 'City' in 'field list'
mysql> /*18. Retrieve a list of jobs with titles containing either 'Developer' or 'Engineer'*/
mysql> SELECT JobID, JobTitle
    -> FROM Jobs
    -> WHERE JobTitle LIKE '%Developer%' OR JobTitle LIKE '%Engineer%';
+-------+----------------------+
| JobID | JobTitle             |
+-------+----------------------+
|   101 | Software Engineer    |
|   103 | Mobile App Developer |
|   106 | Web Developer        |
|   109 | DevOps Engineer      |
+-------+----------------------+
4 rows in set (0.00 sec)

mysql> /* 19. Retrieve a list of applicants and the jobs they have applied for, including those who have not
    /*> applied and jobs without applicants.*/
mysql> SELECT Applicants.ApplicantID, Applicants.FirstName, Applicants.LastName,
    ->        Jobs.JobID, Jobs.JobTitle
    -> FROM Applicants
    -> CROSS JOIN Jobs
    -> LEFT JOIN Applications ON Applicants.ApplicantID = Applications.ApplicantID
    ->                        AND Jobs.JobID = Applications.JobID;
+-------------+-----------+----------+-------+----------------------+
| ApplicantID | FirstName | LastName | JobID | JobTitle             |
+-------------+-----------+----------+-------+----------------------+
|          80 | Pooja     | Yadav    |   101 | Software Engineer    |
|          59 | Amitabh   | Singh    |   101 | Software Engineer    |
|          58 | Swati     | Sharma   |   101 | Software Engineer    |
|          57 | Alok      | Gupta    |   101 | Software Engineer    |
|          56 | Meera     | Reddy    |   101 | Software Engineer    |
|          55 | Raj       | Verma    |   101 | Software Engineer    |
|          54 | Ananya    | Mishra   |   101 | Software Engineer    |
|          53 | Vikram    | Rajput   |   101 | Software Engineer    |
|          52 | Neha      | Singh    |   101 | Software Engineer    |
|          51 | Kiran     | Patel    |   101 | Software Engineer    |
|          80 | Pooja     | Yadav    |   102 | Big Data Analyst     |
```

```
MySQL 8.0 Command Line Client                                                          —  □  ×

mysql> /*20. List all combinations of applicants and companies where the company is in a specific city and the
   /*> applicant has more than 2 years of experience. For example: city=Chennai*/
mysql> SELECT a.applicantid,a.firstname,a.lastname,a.email,a.phone,a.resume,c.companyid,c.companyname,c.location
    -> from applicants a
    -> cross join companies c
    -> where c.location='mumbai';
+-------------+-----------+----------+-----------------------------+------------+----------------------------+-----------+-----------------------+----------+
| applicantid | firstname | lastname | email                       | phone      | resume                     | companyid | companyname           | location |
+-------------+-----------+----------+-----------------------------+------------+----------------------------+-----------+-----------------------+----------+
|          51 | Kiran     | Patel    | kiran.patel@example.com     | 7894561230 | Resume for Kiran Patel     |        13 | FutureTech Innovations | Mumbai   |
|          52 | Neha      | Singh    | neha.singh@example.com      | 9876543210 | Resume for Neha Singh      |        13 | FutureTech Innovations | Mumbai   |
|          53 | Vikram    | Rajput   | vikram.rajput@example.com   | 8765432109 | Resume for Vikram Rajput   |        13 | FutureTech Innovations | Mumbai   |
|          54 | Ananya    | Mishra   | ananya.mishra@example.com   | 7890123456 | Resume for Ananya Mishra   |        13 | FutureTech Innovations | Mumbai   |
|          55 | Raj       | Verma    | raj.verma@example.com       | 9876543210 | Resume for Raj Verma       |        13 | FutureTech Innovations | Mumbai   |
|          56 | Meera     | Reddy    | meera.reddy@example.com     | 8765432109 | Resume for Meera Reddy     |        13 | FutureTech Innovations | Mumbai   |
|          57 | Alok      | Gupta    | alok.gupta@example.com      | 7890123456 | Resume for Alok Gupta      |        13 | FutureTech Innovations | Mumbai   |
|          58 | Swati     | Sharma   | swati.sharma@example.com    | 9876543210 | Resume for Swati Sharma    |        13 | FutureTech Innovations | Mumbai   |
|          59 | Amitabh   | Singh    | amitabh.singh@example.com   | 8765432109 | Resume for Amitabh Singh   |        13 | FutureTech Innovations | Mumbai   |
|          80 | Pooja     | Yadav    | pooja.yadav@example.com     | 7890123456 | Resume for Pooja Yadav     |        13 | FutureTech Innovations | Mumbai   |
+-------------+-----------+----------+-----------------------------+------------+----------------------------+-----------+-----------------------+----------+
10 rows in set (0.01 sec)

mysql>
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