

WORKING WITH MULTIPLE TABLES

CREATION OF THE REQUIRED TABLES:

-- Create the departments table

```
CREATE TABLE departments (  
    department_id INT PRIMARY KEY,  
    department_name VARCHAR(50),  
    location_id INT  
);
```

-- Create the employees table

```
CREATE TABLE employees (  
    employee_id INT PRIMARY KEY,  
    last_name VARCHAR(50),  
    department_id INT,  
    manager_id INT,  
    job_id VARCHAR(10),  
    salary DECIMAL(10, 2),  
    commission_pct DECIMAL(5, 2),  
    hire_date DATE,  
    FOREIGN KEY (department_id) REFERENCES departments(department_id)  
);
```

-- Create the jobs table

```
CREATE TABLE jobs (  
    job_id VARCHAR(10) PRIMARY KEY,  
    job_title VARCHAR(50)  
);
```

-- Create the locations table

```
CREATE TABLE locations (  
    location_id INT PRIMARY KEY,  
    city VARCHAR(50)  
);
```

-- Create the job_grades table

```
CREATE TABLE job_grades (  
    grade_level VARCHAR(5) PRIMARY KEY,  
    lowest_salary DECIMAL(10, 2),  
    highest_salary DECIMAL(10, 2)  
);
```

WORKING WITH MULTIPLE TABLES

INSERTING THE VALUES

-- Insert values into departments

```
INSERT INTO departments VALUES (10, 'Administration', 1000);
```

```
INSERT INTO departments VALUES (20, 'Marketing', 1001);
```

```
INSERT INTO departments VALUES (80, 'Sales', 1002);
```

-- Insert values into employees

```
INSERT INTO employees VALUES (101, 'Smith', 10, NULL, 'AD_PREP', 24000, NULL, '2003-01-13');
```

```
INSERT INTO employees VALUES (102, 'Jones', 20, 101, 'MK_REP', 18000, 0.10, '2005-05-12');
```

```
INSERT INTO employees VALUES (103, 'Davies', 80, 101, 'SA_MAN', 12000, 0.15, '2004-06-23');
```

```
INSERT INTO employees VALUES (104, 'King', 80, NULL, 'SA_REP', 8000, NULL, '2006-01-01');
```

```
INSERT INTO employees VALUES (105, 'Brown', 80, 103, 'SA_REP', 9000, 0.10, '2007-01-11');
```

-- Insert values into jobs

```
INSERT INTO jobs VALUES ('AD_PREP', 'President');
```

```
INSERT INTO jobs VALUES ('MK_REP', 'Marketing Representative');
```

```
INSERT INTO jobs VALUES ('SA_MAN', 'Sales Manager');
```

```
INSERT INTO jobs VALUES ('SA_REP', 'Sales Representative');
```

-- Insert values into locations

```
INSERT INTO locations VALUES (1000, 'New York');
```

```
INSERT INTO locations VALUES (1001, 'Los Angeles');
```

```
INSERT INTO locations VALUES (1002, 'Toronto');
```



-- Insert values into job_grades

```
INSERT INTO job_grades VALUES ('A', 5000, 10000);
```

```
INSERT INTO job_grades VALUES ('B', 10001, 15000);
```

```
INSERT INTO job_grades VALUES ('C', 15001, 20000);
```

WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows 10   Save Run



```
SELECT e.last_name, e.dept_id, d.dept_name
FROM employees e
JOIN depts d ON e.dept_id = d.dept_id;
```

Results [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

LAST_NAME	DEPT_ID	DEPT_NAME
Smith	10	Administration
Jones	20	Marketing
Davies	80	Sales
King	80	Sales
Brown	80	Sales

5 rows returned in 0.01 seconds [Download](#)

WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows   Save Run



```
SELECT e.last_name, d.dept_name, d.loc_id, l.city
FROM employees e
JOIN depts d ON e.dept_id = d.dept_id
JOIN locs l ON d.loc_id = l.loc_id
WHERE e.comm_pct IS NOT NULL;
```

Results Explain Describe Saved SQL History

LAST_NAME	DEPT_NAME	LOC_ID	CITY
Jones	Marketing	1001	Los Angeles
Davies	Sales	1002	Toronto
Brown	Sales	1002	Toronto

3 rows returned in 0.01 seconds [Download](#)

WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows   Save



```
SELECT e.last_name, d.dept_name  
FROM employees e  
JOIN depts d ON e.dept_id = d.dept_id  
WHERE e.last_name LIKE 'a%';
```

Results Explain Describe Saved SQL History

LAST_NAME	DEPT_NAME
Davies	Sales

1 rows returned in 0.01 seconds [Download](#)

WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows   Save Run

```
SELECT e.last_name, j.job_title, e.dept_id, d.dept_name
FROM employees e
JOIN jobs j ON e.job_id = j.job_id
JOIN depts d ON e.dept_id = d.dept_id
JOIN locs l ON d.loc_id = l.loc_id
WHERE l.city = 'Toronto';
```

Results Explain Describe Saved SQL History

LAST_NAME	JOB_TITLE	DEPT_ID	DEPT_NAME
Davies	Sales Manager	80	Sales
King	Sales Representative	80	Sales
Brown	Sales Representative	80	Sales

3 rows returned in 0.01 seconds [Download](#)

WORKING WITH MULTIPLE TABLES



```
SELECT e.last_name AS Employee, e.employees_id AS Emp#, m.last_name AS Manager, e.mgr_id AS Mgr#  
FROM employees e  
LEFT JOIN employees m ON e.mgr_id = m.employees_id;
```

Results Explain Describe Saved SQL History

EMPLOYEE	EMP#	MANAGER	MGR#
Davies	103	Smith	101
Jones	102	Smith	101
Brown	105	Davies	103
King	104	-	-
Smith	101	-	-

5 rows returned in 0.01 seconds [Download](#)

WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows  

```
SELECT e.last_name, e.employees_id, COALESCE(m.last_name, 'No Manager') AS Manager
FROM employees e
LEFT JOIN employees m ON e.mgr_id = m.employees_id
ORDER BY e.employees_id;
```



Results Explain Describe Saved SQL History

LAST_NAME	EMPLOYES_ID	MANAGER
Smith	101	No Manager
Jones	102	Smith
Davies	103	Smith
King	104	No Manager
Brown	105	Davies

5 rows returned in 0.00 seconds [Download](#)

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WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows   [Save](#) [Run](#)

```
SELECT e1.last_name AS Employee, e1.dept_id, e2.last_name AS Colleague
FROM employees e1
JOIN employees e2 ON e1.dept_id = e2.dept_id
WHERE e1.last_name = 'Jones' AND e1.employees_id != e2.employees_id;
```

Results [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

no data found

WORKING WITH MULTIPLE TABLES

Autocommit ROWS 10 Save Run

```
SELECT e.last_name, j.job_title, d.dept_name, e.salary, g.grade_level
FROM employees e
JOIN jobs j ON e.job_id = j.job_id
JOIN depts d ON e.dept_id = d.dept_id
JOIN job_grade g ON e.salary BETWEEN g.low_salary AND g.high_salary;
```

Results Explain Describe Saved SQL History

LAST_NAME	JOB_TITLE	DEPT_NAME	SALARY	GRADE_LEVEL
King	Sales Representative	Sales	8000	A
Brown	Sales Representative	Sales	9000	A
Davies	Sales Manager	Sales	12000	B
Jones	Marketing Representative	Marketing	18000	C

4 rows returned in 0.00 seconds [Download](#)

WORKING WITH MULTIPLE TABLES

Autocommit Rows 10 Save Run

```
SELECT e.last_name, e.hire_date
FROM employees e
WHERE e.hire_date > (SELECT hire_date FROM employees WHERE last_name = 'Davies');
```



Results Explain Describe Saved SQL History

LAST_NAME	HIRE_DATE
Jones	12/05/2005
King	12/01/2006
Brown	11/01/2007

3 rows returned in 0.00 seconds

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WORKING WITH MULTIPLE TABLES

☒ Autocommit Rows 10   Save Run

```
SELECT e.last_name AS Employee, e.hire_date AS Emp Hired, m.last_name AS Manager, m.hire_date AS Mgr Hired
FROM employees e
JOIN employees m ON e.mgr_id = m.employees_id
WHERE e.hire_date < m.hire_date;
```

Results [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

no data found