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Query
Query History

```

22 -- Create departments table
23 CREATE TABLE departments (
24     dept_no VARCHAR(5) PRIMARY KEY NOT NULL,
25     dept_name VARCHAR (40) NOT NULL
26 );
27
28 -- Create All Tables
29
30 -- Create employees table
31 CREATE TABLE employees (
32     emp_no INT PRIMARY KEY NOT NULL,
33     emp_title_id VARCHAR(5) NOT NULL,
34     birth_date date NOT NULL,
35     first_name VARCHAR (50) NOT NULL,
36     last_name VARCHAR (50),
37     sex VARCHAR(1) NOT NULL,
38     hire_date date NOT NULL
39 );
40
41 -- Create titles table
42 CREATE TABLE titles (
43     title_id VARCHAR(5) PRIMARY KEY NOT NULL,
44     title VARCHAR(50) NOT NULL
45 );
46
47 -- Create dept_emp table
48 -- use composite primary key
49 CREATE TABLE dept_emp (
50     emp_no INT NOT NULL,
51     dept_no VARCHAR(5) NOT NULL,
52     PRIMARY KEY (emp_no, dept_no),
53     FOREIGN KEY (emp_no) REFERENCES employees(emp_no)

```

Data Output
Messages
Notifications

```
-- Import data from departments.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM departments;
```

Output Messages Notifications

| dept_no<br>[PK] character varying (5) | dept_name<br>character varying (40) |
|---------------------------------------|-------------------------------------|
| d001                                  | Marketing                           |
| d002                                  | Finance                             |
| d003                                  | Human Resources                     |
| d004                                  | Production                          |
| d005                                  | Development                         |
| d006                                  | Quality Management                  |
| d007                                  | Sales                               |
| d008                                  | Research                            |
| d009                                  | Customer Service                    |

## Employees

```
-- Import data from employees.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM employees;
```

Output Messages Notifications

| emp_no<br>[PK] integer | emp_title_id<br>character varying (5) | birth_date<br>date | first_name<br>character varying (50) | last_name<br>character varying (50) | sex<br>character varying (1) |
|------------------------|---------------------------------------|--------------------|--------------------------------------|-------------------------------------|------------------------------|
| 473302                 | s0001                                 | 1953-07-25         | Hideyuki                             | Zallocco                            | M                            |
| 475053                 | e0002                                 | 1954-11-18         | Byong                                | Delgrande                           | F                            |
| 57444                  | e0002                                 | 1958-01-30         | Berry                                | Babb                                | F                            |
| 421786                 | s0001                                 | 1957-09-28         | Xiong                                | Verhoeff                            | M                            |
| 282238                 | e0003                                 | 1952-10-28         | Abdelkader                           | Baumann                             | F                            |
| 263976                 | e0003                                 | 1959-10-30         | Eran                                 | Cusworth                            | M                            |
| 273487                 | s0001                                 | 1957-04-14         | Christoph                            | Parfitt                             | M                            |
| 461591                 | s0002                                 | 1964-11-17         | Xudong                               | Samarati                            | M                            |
| 477657                 | e0002                                 | 1962-12-18         | Lihong                               | Magliocco                           | M                            |
| 219881                 | s0002                                 | 1956-04-24         | Kwangyoen                            | Speek                               | F                            |
| 29020                  | e0002                                 | 1961-12-31         | Shuichi                              | Tuzani                              | F                            |

## Titles

```
-- Import data from titles.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM titles;
```

Output Messages Notifications

| title_id<br>[PK] character varying (5) | title<br>character varying (50) |
|--|---------------------------------|
| s0001                                  | Staff                           |
| s0002                                  | Senior Staff                    |
| e0001                                  | Assistant Engineer              |
| e0002                                  | Engineer                        |
| e0003                                  | Senior Engineer                 |
| e0004                                  | Technique Leader                |
| m0001                                  | Manager                         |

## Dept\_manager

```
-- Import data from dept_manager.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM dept_manager;
```

Output Messages Notifications

| dept_no<br>[PK] character varying (5) | emp_no<br>[PK] integer |
|---------------------------------------|------------------------|
| d001                                  | 110022                 |
| d001                                  | 110039                 |
| d002                                  | 110085                 |
| d002                                  | 110114                 |
| d003                                  | 110183                 |
| d003                                  | 110228                 |
| d004                                  | 110303                 |
| d004                                  | 110344                 |
| d004                                  | 110386                 |
| d004                                  | 110420                 |
| d005                                  | 110511                 |
| d005                                  | 110567                 |
| d006                                  | 110725                 |

## Dept\_emp

```
-- Import data from dept_emp.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM dept_emp;
```

Output Messages Notifications

| emp_no<br>[PK] integer | dept_no<br>[PK] character varying (5) |
|------------------------|---------------------------------------|
| 10001                  | d005                                  |
| 10002                  | d007                                  |
| 10003                  | d004                                  |
| 10004                  | d004                                  |
| 10005                  | d003                                  |
| 10006                  | d005                                  |
| 10007                  | d008                                  |
| 10008                  | d005                                  |
| 10009                  | d006                                  |
| 10010                  | d004                                  |
| 10010                  | d006                                  |
| 10011                  | d009                                  |
| 10012                  | d005                                  |
| 10013                  | d003                                  |
| 10014                  | d005                                  |
| 10015                  | d008                                  |

## Salaries

```
-- Import data from salaries.csv
-- View the table to ensure all data has been imported correctly
SELECT * FROM salaries;
```

Output Messages Notifications

| emp_no<br>[PK] integer | salary<br>integer |
|------------------------|-------------------|
| 10001                  | 60117             |
| 10002                  | 65828             |
| 10003                  | 40006             |
| 10004                  | 40054             |
| 10005                  | 78228             |
| 10006                  | 40000             |
| 10007                  | 56724             |
| 10008                  | 46671             |
| 10009                  | 60929             |
| 10010                  | 72488             |
| 10011                  | 42365             |
| 10012                  | 40000             |
| 10013                  | 40000             |
| 10014                  | 46168             |
| 10015                  | 40000             |

## Query 1 – List Employee Number, Name, Sex and Salary of each Employee

```
-- List the employee number, last name, first name, sex, and salary of each employee (2 points)
SELECT
  emp.emp_no AS "Employee Number",
  emp.last_name AS "Last Name",
  emp.first_name AS "First Name",
  emp.sex AS "Sex",
  sal.salary AS "Salary"
FROM employees emp
INNER JOIN salaries sal
ON emp.emp_no = sal.emp_no;
```

ta Output Messages Notifications

| Employee Number<br>integer | Last Name<br>character varying (50) | First Name<br>character varying (50) | Sex<br>character varying (1) | Salary<br>integer |
|----------------------------|-------------------------------------|--------------------------------------|------------------------------|-------------------|
| 57444                      | Babb                                | Berry                                | F                            | 48973             |
| 263976                     | Cusworth                            | Eran                                 | M                            | 40000             |
| 461591                     | Samarati                            | Xudong                               | M                            | 40000             |
| 477657                     | Magliocco                           | Lihong                               | M                            | 54816             |
| 29920                      | Tyugu                               | Shuichi                              | F                            | 40000             |
| 13616                      | Lorho                               | Perry                                | F                            | 40000             |
| 246449                     | Bultermann                          | Subbu                                | F                            | 87084             |
| 21529                      | Zallocco                            | Bojan                                | M                            | 40000             |
| 17934                      | Wuwongse                            | Bilhanan                             | M                            | 48795             |
| 48085                      | Gilg                                | Venkatesan                           | M                            | 63016             |
| 240129                     | Karnin                              | Roddy                                | M                            | 43548             |
| 427958                     | Poujol                              | Feixiong                             | F                            | 63377             |

## Query 2 – Employee Hired in 1986

```
-- List the first name, last name, and hire date for the employees who were hired in 1986 (2 points)
SELECT
    first_name AS "First Name",
    last_name AS "Last Name",
    hire_date AS "Hire Date"
FROM employees emp
WHERE emp.hire_date >= '01/01/1986'
AND emp.hire_date <= '12/31/1986'
ORDER BY emp.hire_date ASC;
```

Output Messages Notifications

| First Name             | Last Name              | Hire Date  |
|------------------------|------------------------|------------|
| character varying (50) | character varying (50) | date       |
| Kwangyoen              | Rosca                  | 1986-01-01 |
| Guadalupe              | Smeets                 | 1986-01-01 |
| Sanjay                 | Servieres              | 1986-01-01 |
| Alejandra              | Luce                   | 1986-01-01 |
| Domenico               | Debuse                 | 1986-01-01 |
| Masaki                 | Reeker                 | 1986-01-01 |
| Shao                   | Reinhart               | 1986-01-01 |
| Vidar                  | Tibblin                | 1986-01-01 |
| Yongmao                | Fritzsche              | 1986-01-01 |
| Hausi                  | Lores                  | 1986-01-01 |
| Jianhao                | Serot                  | 1986-01-01 |
| Mario                  | Orlowska               | 1986-01-01 |
| Eishiro                | Curless                | 1986-01-01 |
| Eirik                  | Duclos                 | 1986-01-01 |
| Theron                 | Homond                 | 1986-01-01 |

## Query 3 – List the manager of each department

```
-- List the manager of each department along with their department number, department name, employee number, last name, and first name (2 points)
SELECT
    dept.dept_no AS "Department Number",
    dept.dept_name AS "Department Name",
    dept_m.emp_no AS "Employee Number",
    emp.last_name AS "Last Name",
    emp.first_name AS "First Name"
FROM departments dept
JOIN dept_manager dept_m
ON dept.dept_no = dept_m.dept_no
JOIN employees emp
ON emp.emp_no = dept_m.emp_no;
```

Output Messages Notifications

| Department Number     | Department Name        | Employee Number | Last Name              | First Name             |
|-----------------------|------------------------|-----------------|------------------------|------------------------|
| character varying (5) | character varying (40) | integer         | character varying (50) | character varying (50) |
| d001                  | Marketing              | 110022          | Markovitch             | Margareta              |
| d001                  | Marketing              | 110039          | Minakawa               | Vishwani               |
| d002                  | Finance                | 110085          | Alpin                  | Ebru                   |
| d002                  | Finance                | 110114          | Legleitner             | Isamu                  |
| d003                  | Human Resources        | 110183          | Ossenbruggen           | Shirish                |
| d003                  | Human Resources        | 110228          | Sigstam                | Karsten                |
| d004                  | Production             | 110303          | Wegerle                | Krassimir              |
| d004                  | Production             | 110344          | Cools                  | Rosine                 |
| d004                  | Production             | 110386          | Kieras                 | Shem                   |
| d004                  | Production             | 110420          | Ghazalie               | Oscar                  |
| d005                  | Development            | 110511          | Hagimont               | DeForest               |
| d005                  | Development            | 110567          | DasSarma               | Leon                   |
| d006                  | Quality Management     | 110725          | Onuegbe                | Peternela              |
| d006                  | Quality Management     | 110765          | Hofmevr                | Rutger                 |

## Query 4 – List department number for each employee

```
-- List the department number for each employee along with that employee's employee number, last name, first name, and department name (2 points)
SELECT
  dept.dept_no AS "Department Number",
  emp.emp_no AS "Employee Number",
  emp.last_name AS "Last Name",
  emp.first_name AS "First Name",
  dept.dept_name AS "Department Name"
FROM departments dept
JOIN dept_emp emp
ON dept.dept_no = emp.dept_no
JOIN employees emp
ON emp.emp_no = emp.emp_no
ORDER BY dept.dept_no;
```

Output Messages Notifications

| Department Number<br>character varying (5) | Employee Number<br>integer | Last Name<br>character varying (50) | First Name<br>character varying (50) | Department Name<br>character varying (40) |
|--|----------------------------|-------------------------------------|--------------------------------------|---|
| d001                                       | 99720                      | Luga                                | DeForest                             | Marketing                                 |
| d001                                       | 256781                     | Pezzoli                             | Taizo                                | Marketing                                 |
| d001                                       | 291849                     | Wilharm                             | Zvonko                               | Marketing                                 |
| d001                                       | 217464                     | Nilsson                             | Gaetan                               | Marketing                                 |
| d001                                       | 291848                     | Gill                                | Pranas                               | Marketing                                 |
| d001                                       | 256742                     | Goodrum                             | Baoqiu                               | Marketing                                 |
| d001                                       | 256725                     | Majewski                            | Freyja                               | Marketing                                 |
| d001                                       | 256688                     | Birta                               | Mack                                 | Marketing                                 |
| d001                                       | 217531                     | Walstra                             | Heeju                                | Marketing                                 |
| d001                                       | 18338                      | Bellone                             | Niteen                               | Marketing                                 |
| d001                                       | 256622                     | Undy                                | Shai                                 | Marketing                                 |
| d001                                       | 73666                      | Annalou                             | Maren                                | Marketing                                 |

## Query 5 – List Name and Sex of each employee with first name Hercules and last name starts with B

```
-- List first name, last name, and sex of each employee whose first name is Hercules and whose last name begins with the letter B (2 points)
SELECT
  emp.first_name AS "First Name",
  emp.last_name AS "Last Name",
  emp.sex
FROM employees emp
WHERE emp.first_name = 'Hercules'
AND emp.last_name LIKE 'B%'
ORDER BY emp.last_name;
```

Output Messages Notifications

| First Name<br>character varying (50) | Last Name<br>character varying (50) | sex<br>character varying (1) |
|--------------------------------------|-------------------------------------|------------------------------|
| Hercules                             | Baak                                | M                            |
| Hercules                             | Baer                                | M                            |
| Hercules                             | Bahr                                | M                            |
| Hercules                             | Bail                                | F                            |
| Hercules                             | Bain                                | F                            |
| Hercules                             | Baranowski                          | M                            |
| Hercules                             | Barreiro                            | M                            |
| Hercules                             | Basagni                             | M                            |
| Hercules                             | Benantar                            | F                            |
| Hercules                             | Benzmuller                          | M                            |
| Hercules                             | Bernardinello                       | F                            |
| Hercules                             | Bernatsky                           | M                            |
| Hercules                             | Berstel                             | F                            |
| Hercules                             | Biran                               | F                            |
| Hercules                             | Birge                               | F                            |

Query 6 – List employees in sales department

```
-- List each employee in the Sales department, including their employee number, last name, and first name (2 points)
SELECT
    dept.dept_name AS "Department Name",
    emp.emp_no AS "Employee Number",
    emp.last_name AS "Last Name",
    emp.first_name AS "First Name"
FROM
    departments dept
JOIN
    dept_emp dept_e
ON
    dept.dept_no = dept_e.dept_no
JOIN
    employees emp
ON
    emp.emp_no = dept_e.emp_no
WHERE
    dept.dept_name = 'Sales'
ORDER BY
    dept.dept_no;
```

Output Messages Notifications

| Department Name<br>character varying (40) | Employee Number<br>integer | Last Name<br>character varying (50) | First Name<br>character varying (50) |
|---|----------------------------|-------------------------------------|--------------------------------------|
| Sales                                     | 10002                      | Simmel                              | Bezalel                              |
| Sales                                     | 10016                      | Cappelletti                         | Kazuhiro                             |
| Sales                                     | 10034                      | Swan                                | Bader                                |
| Sales                                     | 10041                      | Lenart                              | Uri                                  |
| Sales                                     | 10050                      | Dredge                              | Yinghua                              |
| Sales                                     | 10053                      | Zschoche                            | Sanjiv                               |
| Sales                                     | 10060                      | Billingsley                         | Breanna                              |
| Sales                                     | 10061                      | Herber                              | Tse                                  |
| Sales                                     | 10068                      | Brattka                             | Charlene                             |
| Sales                                     | 10087                      | Eugenio                             | Xinglin                              |
| Sales                                     | 10088                      | Syrzycki                            | Jungsoo                              |
| Sales                                     | 10089                      | Flasterstein                        | Sudharsan                            |
| Sales                                     | 10093                      | Desikan                             | Sailaja                              |
| Sales                                     | 10095                      | Morton                              | Hilari                               |
| Sales                                     | 10099                      | Sullins                             | Valter                               |



## Query 7 – List Employees in Sales and Development departments

```
-- List each employee in the Sales and Development departments, including their employee number, last name, first name, and department name (4 points)
SELECT
    dept_e.emp_no AS "Employee Number",
    emp.last_name AS "Last Name",
    emp.first_name AS "First Name",
    dept.dept_name AS "Department Name"
FROM
    departments dept
JOIN
    dept_emp dept_e
ON
    dept.dept_no = dept_e.dept_no
JOIN
    employees emp
ON
    emp.emp_no = dept_e.emp_no
WHERE
    dept.dept_name = 'Sales'
OR
    dept.dept_name = 'Development'
ORDER BY dept.dept_name desc;
```

Output Messages Notifications

| Employee Number | Last Name              | First Name             | Department Name        |
|-----------------|------------------------|------------------------|------------------------|
| integer         | character varying (50) | character varying (50) | character varying (40) |
| 23952           | Oehlmann               | Valdiodio              | Sales                  |
| 89776           | Remmers                | Seongbae               | Sales                  |
| 56777           | Heping                 | Paloma                 | Sales                  |
| 89784           | Journal                | Carrsten               | Sales                  |
| 56779           | Slobodova              | Lansing                | Sales                  |
| 89788           | McDermid               | Filipe                 | Sales                  |
| 17481           | Tiemann                | Irene                  | Sales                  |
| 17482           | Bottner                | Basant                 | Sales                  |
| 23956           | Maraist                | Jongsuk                | Sales                  |
| 23960           | Chiola                 | Qingxiang              | Sales                  |
| 232861          | Conta                  | Somnath                | Sales                  |
| 232863          | Detkin                 | Adin                   | Sales                  |
| 89798           | Stiles                 | Phuoc                  | Sales                  |
| 232866          | Sewalsen               | Sivanaravana           | Sales                  |

## Query 8 - List how many employees has same last names

```
-- List the frequency counts, in descending order, of all the employee last names (that is, how many employees share each last name) (4 points)
SELECT
    emp.last_name AS "Last Name",
    COUNT(emp.last_name) AS "Frequency"
FROM
    employees emp
GROUP BY
    emp.last_name
ORDER BY COUNT(emp.last_name) DESC;
```

Output Messages Notifications

| Last Name              | Frequency |
|------------------------|-----------|
| character varying (50) | bigint    |
| Baba                   | 226       |
| Coorg                  | 223       |
| Gelosh                 | 223       |
| Sudbeck                | 222       |
| Farris                 | 222       |
| Adachi                 | 221       |
| Osgood                 | 220       |
| Mandell                | 218       |
| Neiman                 | 218       |
| Masada                 | 218       |
| Boudaillier            | 217       |
| Wendorf                | 217       |
| Mahnke                 | 216       |
| Solares                | 216       |
| Pettis                 | 216       |