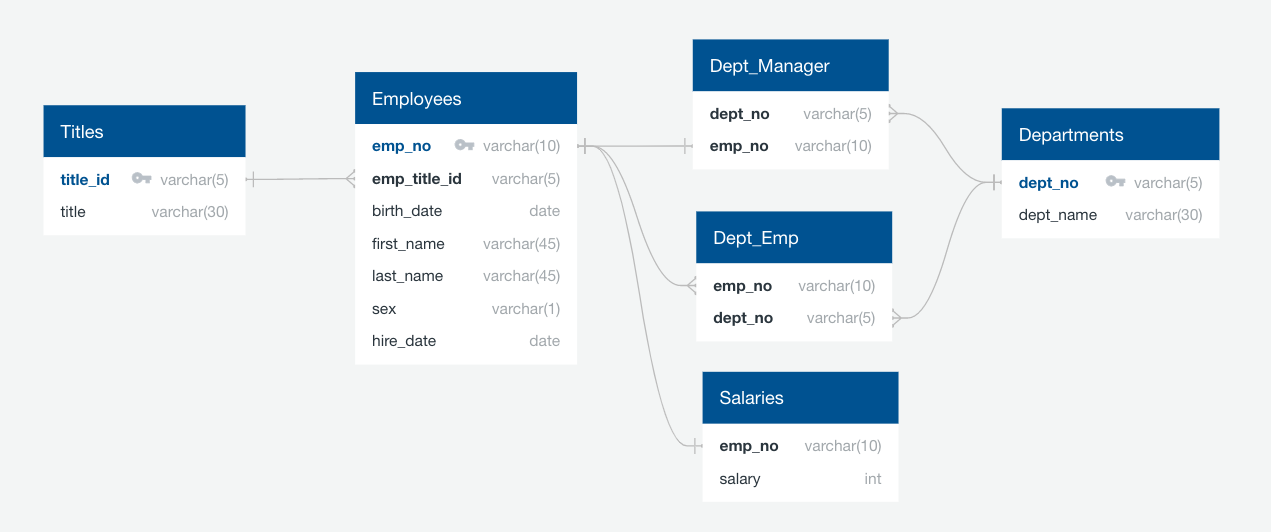
Employee Management System

Submitted by

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ER DIAGRAM:



Created a table schema for each of the 6 CSV files with specific data types, primary keys, foreign keys, and constraints.

-- create titles table

CREATE TABLE titles (

title\_id VARCHAR,

title VARCHAR,

PRIMARY KEY (title\_id)

);

-- create departments table

CREATE TABLE departments (

dept\_no VARCHAR,

dept\_name VARCHAR,

PRIMARY KEY (dept\_no)

);

-- create department employees table

CREATE TABLE dept\_emp (

emp\_no INT,

dept\_no VARCHAR,

FOREIGN KEY (emp\_no) REFERENCES employees (emp\_no),

FOREIGN KEY (dept\_no) REFERENCES departments (dept\_no),

PRIMARY KEY (emp\_no, dept\_no)

);

-- create department managers table

CREATE TABLE dept\_manager (

dept\_no VARCHAR,

emp\_no INT,

FOREIGN KEY (emp\_no) REFERENCES employees (emp\_no),

FOREIGN KEY (dept\_no) REFERENCES departments (dept\_no),

PRIMARY KEY (dept\_no, emp\_no)

);

-- create employees table

CREATE TABLE employees (

emp\_no INT,

emp\_title\_id VARCHAR,

birth\_date DATE,

first\_name VARCHAR,

last\_name VARCHAR,

sex VARCHAR,

hire\_date DATE,

FOREIGN KEY (emp\_title\_id) REFERENCES titles (title\_id),

PRIMARY KEY (emp\_no)

);

-- create salaries table

CREATE TABLE salaries (

emp\_no INT,

salary INT,

FOREIGN KEY (emp\_no) REFERENCES employees (emp\_no),

PRIMARY KEY (emp\_no)

);

Code:

SELECT emp.emp\_no as employee\_number, emp.last\_name, emp.first\_name, emp.sex, sal.salary

FROM employees as emp

LEFT JOIN salaries as sal

ON emp.emp\_no = sal.emp\_no

ORDER BY emp.emp\_no;

SELECT first\_name, last\_name, hire\_date

FROM employees

WHERE hire\_date BETWEEN '1986-01-01' AND '1986-12-31';

SELECT d.dept\_no, d.dept\_name, dm.emp\_no, e.last\_name, e.first\_name

FROM departments d

JOIN dept\_manager dm ON (d.dept\_no = dm.dept\_no)

JOIN employees e ON (dm.emp\_no = e.emp\_no);

SELECT e.emp\_no, e.last\_name, e.first\_name, d.dept\_name

FROM employees e

JOIN dept\_emp de ON (e.emp\_no = de.emp\_no)

JOIN departments d ON (de.dept\_no = d.dept\_no);

SELECT e.emp\_no, e.last\_name, e.first\_name, d.dept\_name

FROM employees e

JOIN dept\_emp de ON (e.emp\_no = de.emp\_no)

JOIN departments d ON (de.dept\_no = d.dept\_no)

WHERE d.dept\_name = 'Sales';

SELECT e.emp\_no, e.last\_name, e.first\_name, d.dept\_name

FROM employees e

JOIN dept\_emp de ON (e.emp\_no = de.emp\_no)

JOIN departments d ON (de.dept\_no = d.dept\_no)

WHERE d.dept\_name = 'Sales'

OR d.dept\_name = 'Development'

SELECT count(last\_name) as frequency, last\_name

FROM employees

GROUP BY last\_name

ORDER BY COUNT(last\_name) DESC;