**Data Engineering**

**Employees Table:**

* **Emp\_no: INT**  
  *Description:* Stores the employee number as a whole number without decimals.
* **birth\_date: DATE (YYYY-MM-DD)**  
  *Description:* Records the employee’s birth date in the standard year-month-day format.
* **first\_name: VARCHAR**  
  *Description:* Holds the employee’s first name as a variable-length string.
* **last\_name: VARCHAR**  
  *Description:* Holds the employee’s last name as a variable-length string.
* **gender: VARCHAR**  
  *Description:* Contains a letter representing the employee’s gender (stored as text).
* **hire\_date: DATE (YYYY-MM-DD)**  
  *Description:* Records the date the employee was hired, following the standard date format.

**Salaries Table:**

* **Emp\_no: INT**  
  *Description:* Links the salary record to an employee by storing their number as an integer.
* **salary: INT**  
  *Description:* Stores the salary amount as a whole number.
* **from\_date: DATE (YYYY-MM-DD)**  
  *Description:* Indicates the start date of the salary period.
* **to\_date: DATE (YYYY-MM-DD)**  
  *Description:* Indicates the end date of the salary period.

**Titles Table:**

* **Emp\_no: INT**  
  *Description:* Associates the title record with an employee via their number.
* **title: VARCHAR**  
  *Description:* Contains the employee’s job title as a text string.
* **from\_date: DATE (YYYY-MM-DD)**  
  *Description:* Marks the date when the employee started holding the title.
* **to\_date: DATE (YYYY-MM-DD)**  
  *Description:* Marks the date when the title ended. A value of 9999 as the year indicates the title is currently held.

**Dept\_Emp Table:**

* **Emp\_no: INT**  
  *Description:* Identifies the employee by number in department assignments.
* **dept\_no: VARCHAR**  
  *Description:* Holds the department number, which includes letters and digits.
* **from\_date: DATE (YYYY-MM-DD)**  
  *Description:* Specifies when the employee started working in the department.
* **to\_date: DATE (YYYY-MM-DD)**  
  *Description:* Specifies when the employee stopped working in the department. A year of 9999 implies the employee is still in that department.

**Departments Table:**

* **dept\_no: VARCHAR**  
  *Description:* Uniquely identifies the department with a combination of letters and digits.
* **dept\_name: VARCHAR**  
  *Description:* Stores the department name as text.

**Dept\_Manager Table:**

* **dept\_no: VARCHAR**  
  *Description:* Associates the manager with a department using its unique identifier.
* **Emp\_no: INT**  
  *Description:* Links the manager record to an employee by number.
* **from\_date: DATE (YYYY-MM-DD)**  
  *Description:* Indicates when the employee started their managerial role.
* **to\_date: DATE (YYYY-MM-DD)**  
  *Description:* Indicates when the managerial role ended. A year of 9999 suggests the employee is still serving as manager.

 **UPDATE titles:**  
Description: Specifies that the update is applied to the titles table.

 **SET to\_date = CURRENT\_DATE:**  
Description: Changes the to\_date field to the current date for the selected records.

 **WHERE EXTRACT(year FROM to\_date) = 9999:**  
Description: Filters the records to update only those rows where the to\_date year is 9999 (a placeholder for current records).