

Description of the HR Schema Objects

In the Human Resource (HR) records, each employee has a unique identification number, e-mail address, job identification code, salary, and manager. Some employees earn commissions in addition to their salary.

The company also tracks information about jobs within the organization. Each job has an identification code, job title, and a minimum and maximum salary range for the job. Some employees have been with the company for a long time and have held different positions within the company. When an employee resigns, the duration the employee was working, the job identification number, and the department are recorded.

The company also tracks the locations of its warehouses and departments. Each employee is assigned to a department, and each department is identified either by a unique department number. Each department is associated with one location, and each location has a full address that includes the street name, postal code, city, state or province, and the country code.

In places where the departments and warehouses are located, the company records details such as the country name, currency symbol, currency name, and the region where the country is located geographically.

Employees Table

The `employees` table has the following attributes:

- **Columns:** `employee_id` (primary key), `first_name`, `last_name`, `email`, `phone_number`, `hire_date`, `job_id`, `salary`, `commission_pct`, `manager_id`, `department_id`.
- **Relationships:**
 - Column `department_id` relates each row of the table `employees` to exactly one value of `department_id` in the table `departments`
 - Column `job_id` relates each row of the table `employees` to exactly one value of `job_id` in the table `jobs`
 - Column `employee_id` relates each row of the table `employees` to none or more rows of `employee_id` in the `job_history` table
 - Column `manager_id` references none or one other row of the `employees` table through a matching `employee_id`; note that a head of the company would typically not have a manager.

Jobs Table

The `jobs` table has the following attributes:

- **Columns:** `job_id` (primary key), `job_title`, `min_salary`, and `max_salary`
- **Relationships:**
 - Column `job_id` relates each row of the table `jobs` to the corresponding values in the `jobs_id` column of the table `employees`
 - Column `job_id` relates none or more rows of the table `jobs` to the corresponding values in the `jobs_id` column of the table `job_history`

Job_history Table

The `job_history` table has the following attributes:

- **Columns:** `employee_id` and `start_date` (a composite primary key), `end_date`, `job_id`, and `department_id`.
- **Relationships:**
 - Each `job_history` record is associated with a record in the table `employees` through the `employee_id`.

Departments Table

The `departments` table has the following attributes:

- **Columns:** `department_id` (primary key), `department_name`, `manager_id`, and `location_id`.
- **Relationships:**
 - Column `department_id` relates each row of the table `departments` to none or more rows of the table `employees` that have corresponding values for `department_id`.
 - Column `manager_id` relates each row of the table `departments` to a row of the table `employees` that has the corresponding value for `employee_id`.
 - Column `location_id` relates each row of the table `departments` to a row of the table `locations` that has the corresponding value for `location_id`.

Location Table

The `locations` table has the following attributes:

- **Columns:** `location_id` (primary key), `street_address`, `postal_code`, `city`, `state_province`, and `country_id`.
- **Relationships:**
 - Column `location_id` relates each row of the table `locations` to none or more rows of the table `departments` that have the corresponding values for `location_id`.
 - Column `country_id` relates each row of the table `locations` to a row in the table `countries` that has the corresponding value for `country_id`.

Countries Table

The `countries` table has the following attributes:

- **Columns:** `country_id` (primary key), `country_name`, and `region_id`.
- **Relationships:**
 - Column `region_id` relates each row of the table `countries` to a row in the table `regions` that has the corresponding value for `region_id`.
 - Column `country_id` relates each row of the table `countries` to none or more rows in the table `locations` that have the corresponding values for `country_id`.

Regions Table

The `regions` table has the following attributes:

- **Columns:** `region_id` (primary key), and `region_name`.
- **Relationships:**
 - Column `region_id` relates rows of the table `regions` to none or more rows of the table `countries` that have the corresponding values for `region_id`.

The Entity Relationship Diagram below shows the relational tables in schema HR and the columns in each table, as well as dependencies between the tables.

