HR Analysis

The HR table is a comprehensive dataset capturing essential employee information within an organization. It includes key attributes such as **`id`**, **`first_name`**, **`last_name`**, **`birthdate`**, **`gender`**, **`race`**, **`department`**, **`jobtitle`**, **`location`**, **`hire_date`**, **`termdate`**, **`location_city`**, and **`location_state`**. These fields cover fundamental employee details, employment history, and demographic information. The table facilitates workforce analysis and management, enabling queries on recruitment patterns, departmental compositions, and employee longevity. The **`hire_date`** and **`termdate`** columns aid in tracking employment durations, supporting tenure-related inquiries. Gender and race columns contribute to diversity assessments. The structure accommodates various SQL queries, allowing for tasks such as calculating average tenure by department, identifying high-tenure individuals, and assessing gender distribution across different locations. Overall, the HR table serves as a valuable resource for human resources professionals and organizational decision-makers to derive insights and make informed workforce-related decisions.

```sql
select * from HR;

Question 1: What is the gender breakdown of employees in the company? --

select count(id) As Gender_count,gender from HR group by gender;

Question 2:  List the employees who were hired after '2020-01-01' in descending order
of their hire dates --

select id,first_name,last_name, hire_date from HR where hire_date > '2020-01-01';

Question 3: Find the unique job titles available in the HR table --

select distinct jobtitle from HR;
```

```sql
Question 4:  Retrieve the employees who were terminated between '2022-01-01' and
'2023-01-01' --

select id,concat(first_name,' ',last_name)as Full_Name,termdate from HR
where termdate between '2022-01-01' and '2023-01-01';

Question 5:  Provide a count of employees for each location state --

select COUNT(id) as Count_of_Emp,location_state from HR
group by location_state
order by Count_of_Emp desc

Question 6 :   Create a query to display the first and last names, along with their
department names, for all employees. --

select first_name,last_name,concat(first_name,' ',last_name)as Full_Name, department
from HR;

Question 7:  Calculate the average tenure (in years) of employees in each department -
select department, AVG(DATEDIFF(YEAR,hire_date,GETDATE())) as average_tenure_years
from HR
group by department;


Question 8:  Find the total number of male and female employees in each location city

select location_city,
       SUM(case when gender = 'Male' then 1 else 0 end) As Male_Count,
          SUM(case when gender = 'Female' then 1 else 0 end) As Female_Count
from HR
group by location_city
```