-- QUESTIONS

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

SELECT gender, COUNT(\*)

FROM hr

GROUP BY gender;

-- 2. What is the race/ethnicity breakdown of employees in the company?

SELECT race, COUNT(\*)

FROM hr

GROUP BY race;

-- 3. What is the age distribution of employees in the company?

SELECT

CASE

WHEN age>= 21 AND age <=35 THEN 'Young Professional'

WHEN age > 35 AND age <=50 THEN 'Mid-career Professional'

WHEN age > 50 THEN 'Experienced'

ELSE 'Non-categorized'

END AS professional\_category,

COUNT(\*) AS COUNT

FROM hr

GROUP BY professional\_category;

-- 4. How many employees work at headquarters versus remote locations?

SELECT location, COUNT(\*)

FROM hr

GROUP BY location;

-- 5. What is the average length of employment for employees who have been terminated?

SELECT round(AVG(DATEDIFF(termdate,hire\_date))/365, 0) AS lenght\_year

FROM hr

WHERE termdate is not null AND termdate <= CURRENT\_DATE;

-- 6. How does the gender distribution vary across departments and job titles?

SELECT department, gender, COUNT(\*) AS gender\_count

FROM hr

GROUP BY department, gender

ORDER by department;

-- 7. What is the distribution of job titles across the company?

SELECT jobtitle, COUNT(\*) AS jobtitle\_count

FROM hr

GROUP BY jobtitle

ORDER by jobtitle\_count DESC;

-- 8. Which department has the highest turnover rate?

SELECT

department,

total\_empl,

term\_count,

term\_count / total\_empl AS turnover\_rate

FROM

(

SELECT

department,

COUNT(\*) AS total\_empl,

SUM(CASE WHEN termdate IS NOT NULL AND termdate <= CURRENT\_DATE THEN 1 ELSE 0 END) AS term\_count

FROM hr

GROUP BY department

) AS Subquery

ORDER BY turnover\_rate DESC;

-- 9. What is the distribution of employees across locations by city and state?

SELECT state, COUNT(\*) AS state\_count

FROM hr

WHERE termdate IS NULL or termdate > CURRENT\_DATE()

GROUP BY state

ORDER BY state\_count DESC;

-- 10. How has the company's employee count changed over time based on hire and term dates?

SELECT YEAR,

hires,

term\_count,

round( ( hires - term\_count ) / hires \* 100, 2 ) AS empl\_count

FROM

(

SELECT YEAR

( hire\_date ) AS YEAR,

COUNT( \* ) AS hires,

SUM( CASE WHEN termdate IS NOT NULL AND termdate <= CURRENT\_DATE ( ) THEN 1 ELSE 0 END ) AS term\_count

FROM

hr

GROUP BY

YEAR

) AS subquery

ORDER BY

YEAR ASC;

-- 11. What is the tenure distribution for each department?

SELECT department, round(AVG(TIMESTAMPDIFF(year,hire\_date,termdate)),0) AS empl\_length

FROM hr

WHERE termdate IS NOT NULL AND termdate <= CURRENT\_DATE()

GROUP BY department

ORDER BY empl\_length DESC;