\*Excel Raw Data File can be found at <https://github.com/kahethu/hr_data/blob/main/HR%20Data.csv> \*  
  
Mission statement and tasks at hand: Build a report highlighting various key performance indicators using SQL and Power BI to uncover various human resource insights that can greatly benefit the company. This dashboard should offer crucial HR metrics like employee turnover, diversity, recruitment efficacy, and performance evaluations. As a result, this report will assist HR professionals in strategic workforce planning and make better informed decisions for the overall health of the company.  
  
Step 1. Clean Data

A close up of a white sheet

Description automatically generatedA screenshot of a computer

Description automatically generatedThe data within this excel file has already been cleaned for the most part, the only adjustment I found necessary was to highlight the “termdate” column which was showing hours, minutes, and seconds and shorten it to YYYY-MM-DD format.

A screenshot of a computer

Description automatically generatedStep 2. Import the edited excel file into MySQL. In this case, we will name this table as “hr\_data3”

Step 3. When the data was imported, it retained that each column be a string function. Notice that within our data, we have hire\_date, birthdate and termdate as columns with dates. It is important we convert those to the correct datatypes for when we begin the reporting process on PowerBI. We will run the following queries to update these columns:   
  
A screenshot of a computer code

Description automatically generated  
  
  
Note that for the termdate column, there are blank values within the column, and so running the above query will not work on this column, we must do it in stages.

A close up of words

Description automatically generated3a. We will first update the blank dataspaces to be null.

A close up of a text

Description automatically generated3b. We will now convert the data where dates are present from a string into a date datatype.

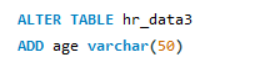
A close-up of a computer screen

Description automatically generated3c. Lastly, we will create a new column, call it “new\_termdate” and then copy the data from termdate into “new\_termdate.

A black text on a white background

Description automatically generated

Step 4. Create a new column called “age” and using the birthdate





**PART 2: Querying the data**

Now that we have formatted the data correctly, we can begin querying in order to find the desired HR info that we will implement into our final Power BI report.

1. A screenshot of a computer program

   Description automatically generatedWhat is the age distribution in the company?

1. What is the age distribution by gender?

A screenshot of a computer

Description automatically generated

1. How many people are in age groups split between 20s, 30s, 40s, and 50+?

A screenshot of a computer

Description automatically generated

1. A screenshot of a computer

   Description automatically generatedUsing those same age brackets, further expand it by showing the total counts of each gender.

1. A screenshot of a computer

   Description automatically generatedWhat is the total gender breakdown in the company?
2. How does gender vary across departments and job titles?

A screenshot of a computer

Description automatically generated

1. What is the race distribution in the company?

A screenshot of a computer

Description automatically generated

1. A screenshot of a computer

   Description automatically generatedWhat is the average length of employment in the company
2. Which department has the highest turnover count?

A screenshot of a computer

Description automatically generated

1. A screenshot of a computer

   Description automatically generatedWhich department has the highest turnover rate?
2. A screenshot of a computer

   Description automatically generatedWhat is the tenure distribution for each department?
3. A screenshot of a computer

   Description automatically generatedHow many employees work remotely from each department?
4. A screenshot of a computer

   Description automatically generatedWhat’s the distribution of employees across different states?

1. A screenshot of a computer

   Description automatically generatedHow are job titles distributed in the company?
2. How have employee hire counts varied over time?

* Calculate hires
* Calculate terminations
* Calculate (hires-terminations)/hires = Percent hire change

A screenshot of a computer

Description automatically generated

At this time, please refer to the Power BI dashboard.