

**EMPLOYEES DATA ANALYTICS DASHBOARD USING POWER BI**

**POWER BI PROJECT REPORT**

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***As technology continues to evolve, Power BI will undoubtedly play an even more crucial role in helping businesses harness the power of data to drive innovation and growth.”***

## **ABSTRACT**

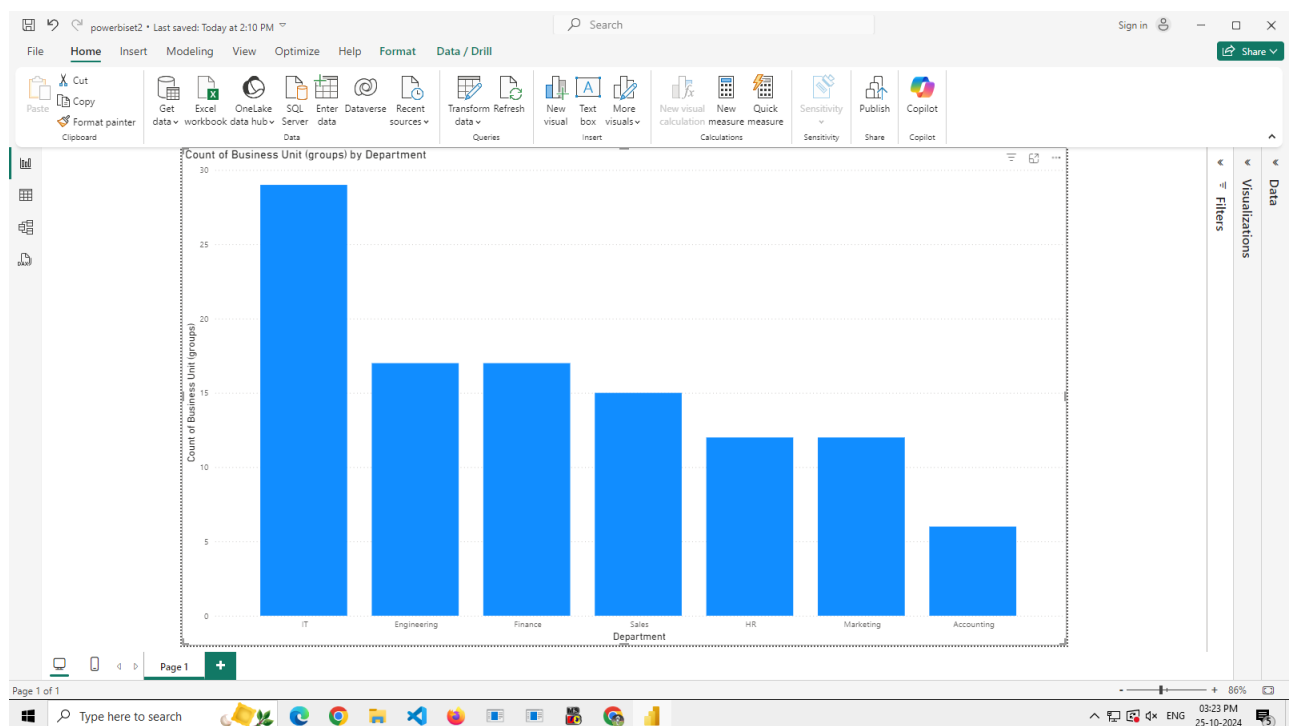
The Employees Dashboard developed using Power BI provides an interactive and comprehensive visualization of key workforce metrics to enhance organizational decisionmaking. This dashboard aggregates and analyzes data related to employee performance, attendance, engagement, and demographics, enabling HR teams and management to identify trends and insights at a glance.

Key features include customizable visualizations, real-time data updates, and user-friendly navigation, allowing users to drill down into specific metrics, such as turnover rates, productivity scores, and training effectiveness. By employing data-driven insights, organizations can proactively address workforce challenges, improve employee satisfaction, and align talent strategies with business objectives.

This dashboard serves as a vital tool for fostering a data-informed culture, ultimately driving strategic initiatives that enhance organizational performance and employee well-being.

## Develop An Interactive Employee Dashboard Using Power bi:

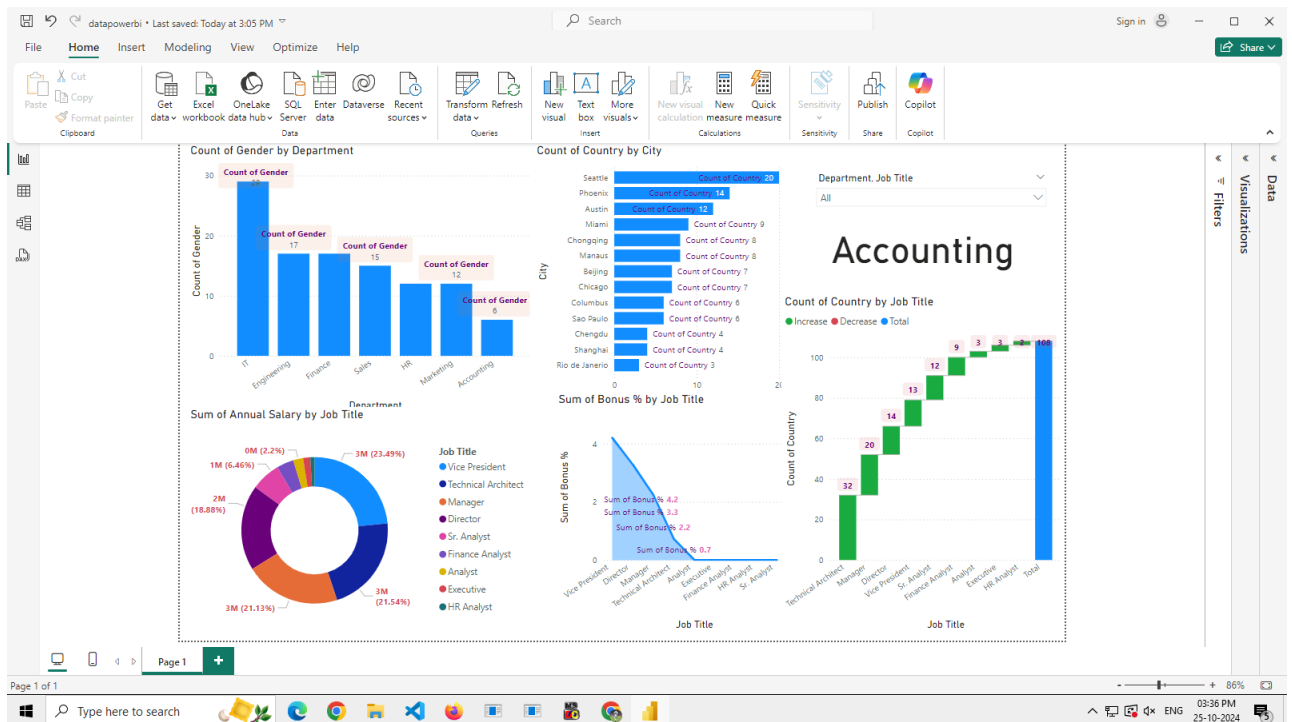
Creating an employee data analytics dashboard in Power BI can help organizations visualize key metrics related to their workforce, streamline decision-making, and enhance HR strategies. Here's a detailed breakdown of what such a dashboard might include, the steps to create it, and best practices for effective visualization.



## Key Components of the Dashboard

### 1. Employee Demographics:

- **Age Distribution:** Bar or pie charts showing age ranges.
- **Gender Breakdown:** Percentage of male vs. female employees.
- **Diversity Metrics:** Insights on ethnicity, disability status, etc.



## 2. Employee Demographics:

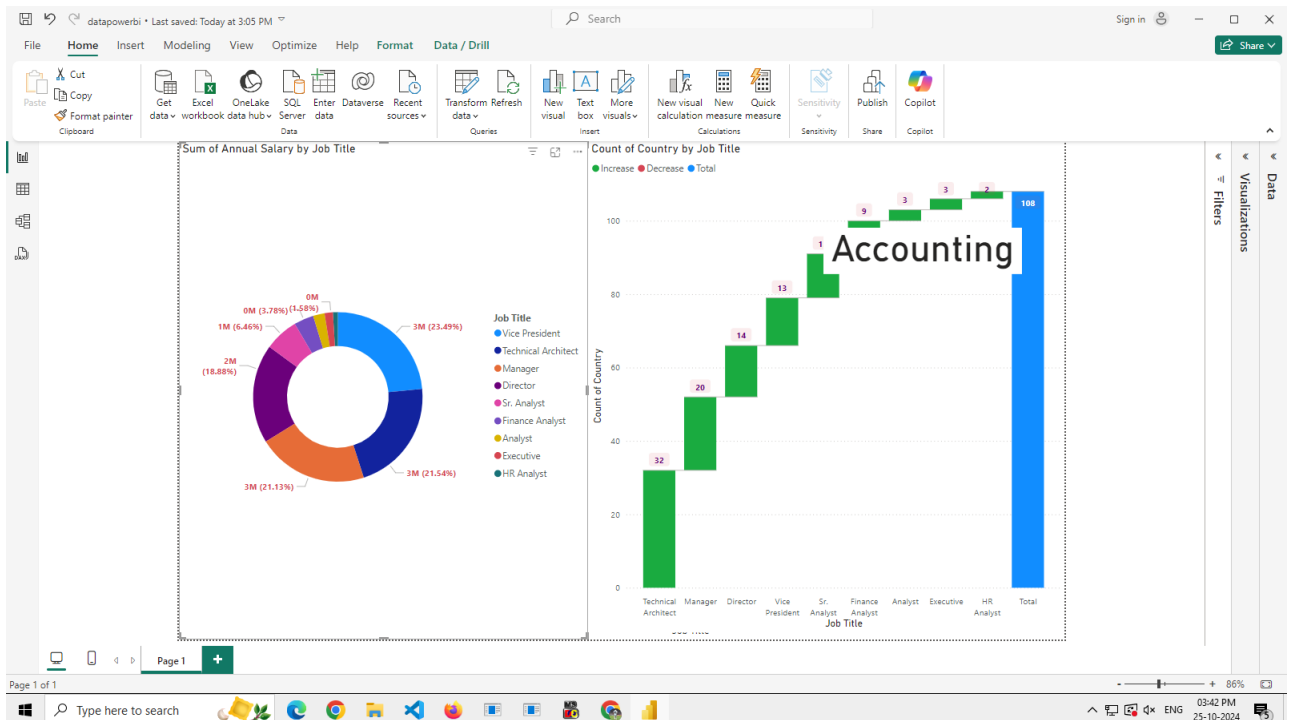
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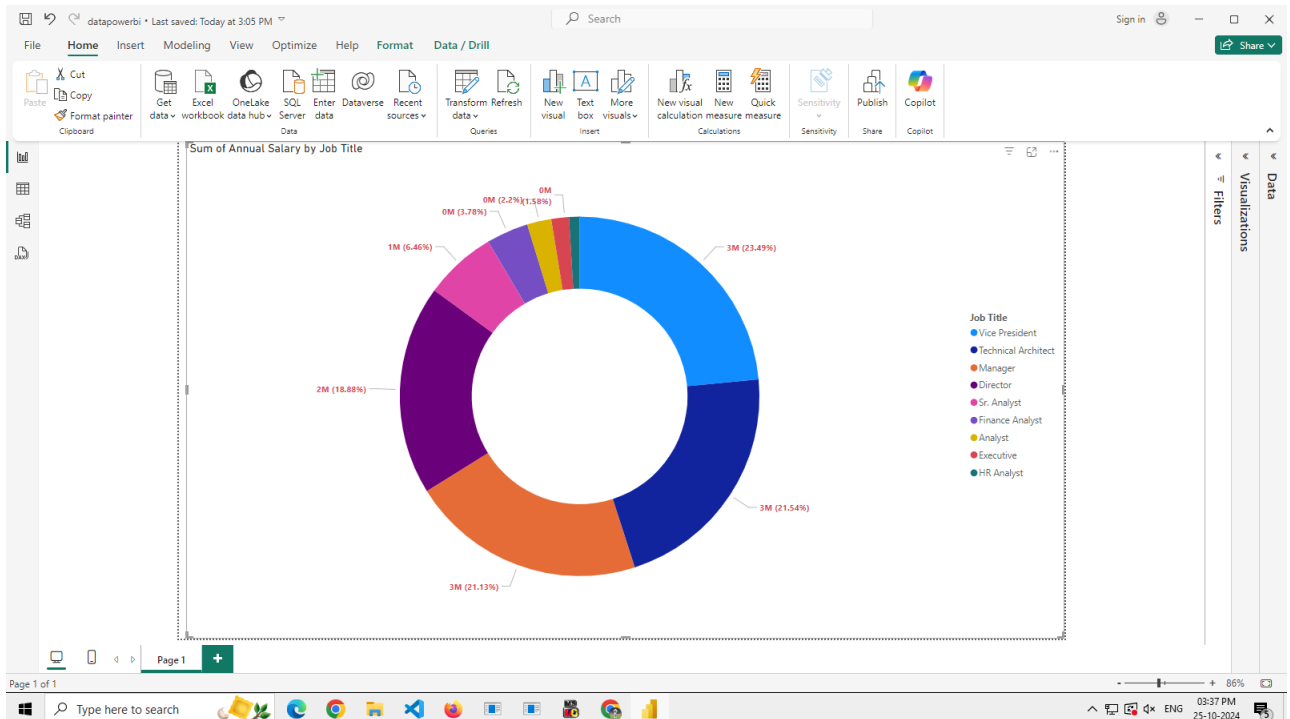
## 3. Employee Performance Metrics:

- **Performance Ratings:** Visualize performance review scores over time.
- **Goal Completion Rates:** Track how many employees meet or exceed their goals.
- **Training and Development:** Participation rates in training programs.

#### 4. Employee Engagement:

- **Employee Satisfaction Scores:** Results from surveys displayed as line or bar graphs.
- **Turnover Rates:** Monthly or quarterly turnover trends, with reasons for leaving if available.
- **Retention Rates:** Metrics showing how long employees stay.





## Attendance and Leave Data:

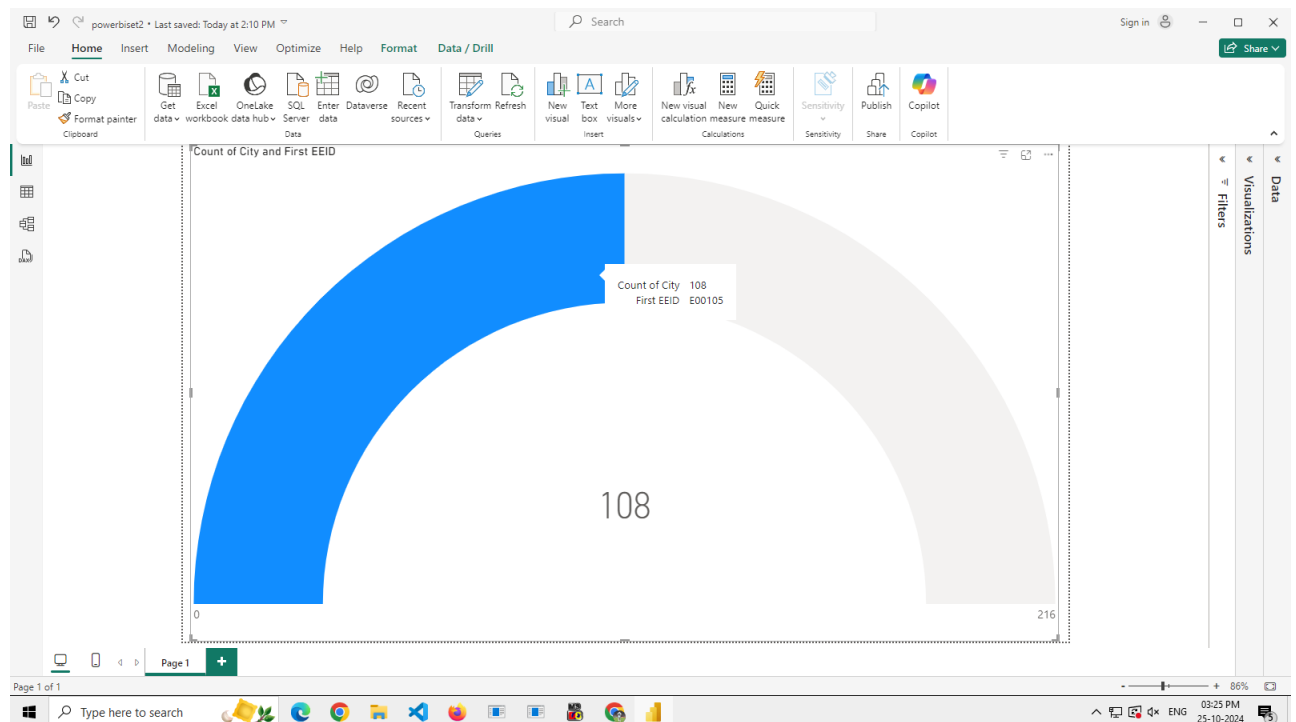
- **Absenteeism Rates:** Days lost due to sickness or other absences.
- **Leave Trends:** Analysis of vacation, sick leave, and other leave types.

## 5. Recruitment Metrics:

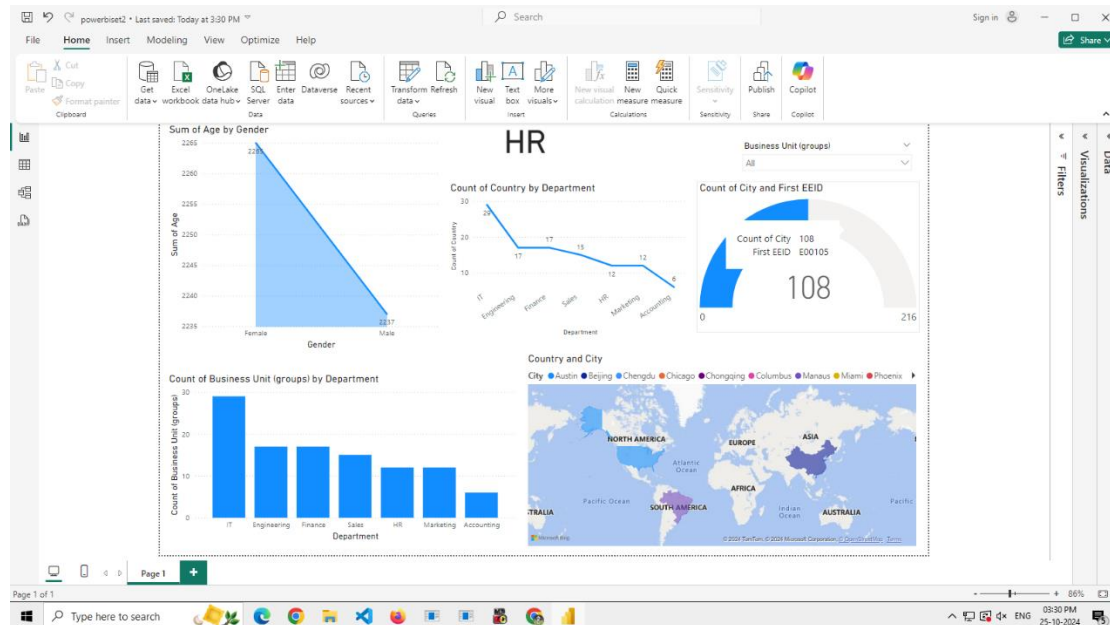
- **Time to Hire:** Average duration to fill open positions.
- **Source of Hire:** Where candidates are coming from (job boards, referrals, etc.).
- **Offer Acceptance Rates:** Percentage of job offers accepted.

- Select the **Active Employee Count by Age Group** pie chart.
- In **Data**, select **Employees** to expand the **Employees** table. Clear **Active Employee Count** to remove that field.
- Select **Separation Count** in the **Employees** table to add it to the **Values** box in the **Data** area.

On the report canvas, select the **Voluntary** bar in the **Separation Count by Separation Reason** bar chart.



- On the report canvas, select the **Voluntary** bar in the **Separation Count by Separation Reason** bar chart.
- This bar highlights those employees who left voluntarily in the other visuals in the report.
- Select the 50+ slice of the **Separation Count by Age Group** pie chart.
- Look at the line chart in the lower-right corner. This chart is filtered to show voluntary separations.



## Compensation Analysis:

- **Salary Distribution:** Overview of salary ranges across departments.
- **Benefits Utilization:** Insights into which benefits are most popular among employees.

## Steps to Create the Dashboard

### 1. Data Preparation:

- **Collect Data:** Gather data from HRIS, surveys, performance management systems, etc.
- **Data Cleaning:** Ensure data accuracy, remove duplicates, and standardize formats.

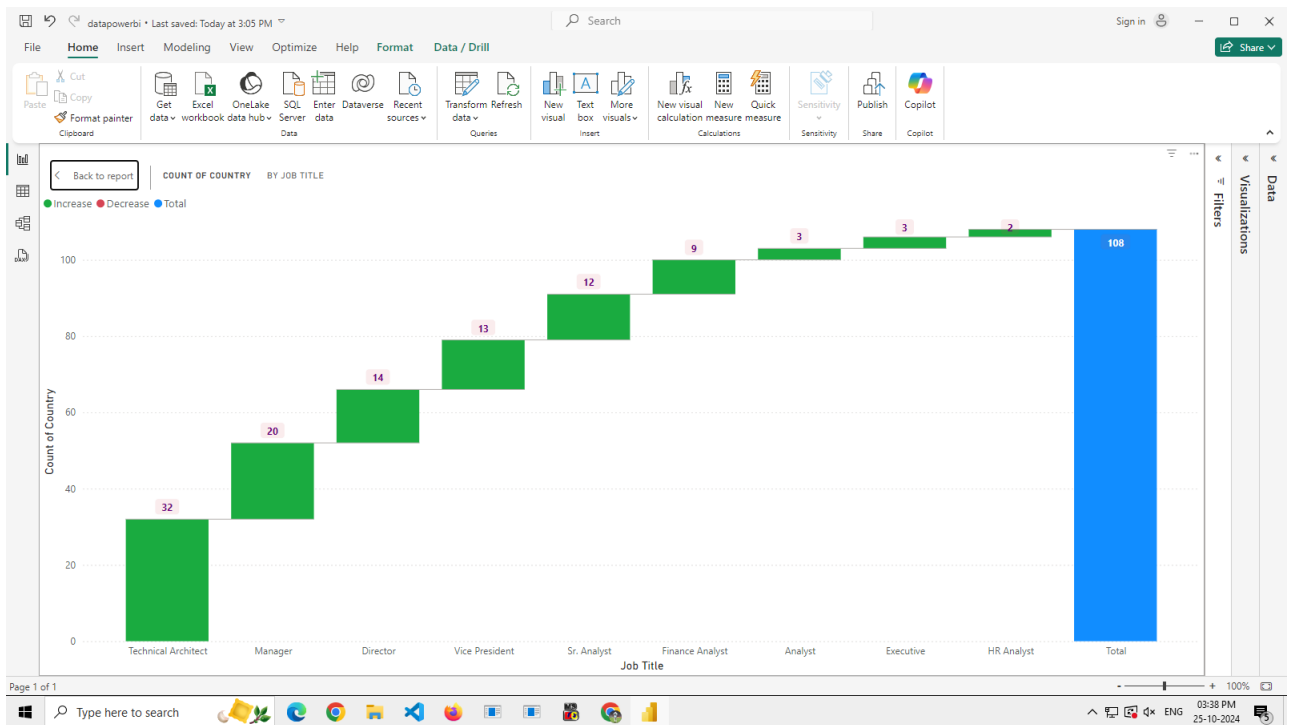
### 2. Data Modeling:

- Use Power BI's data modeling tools to create relationships between different datasets (e.g., linking employee demographics to performance data).



## Designing the Dashboard:

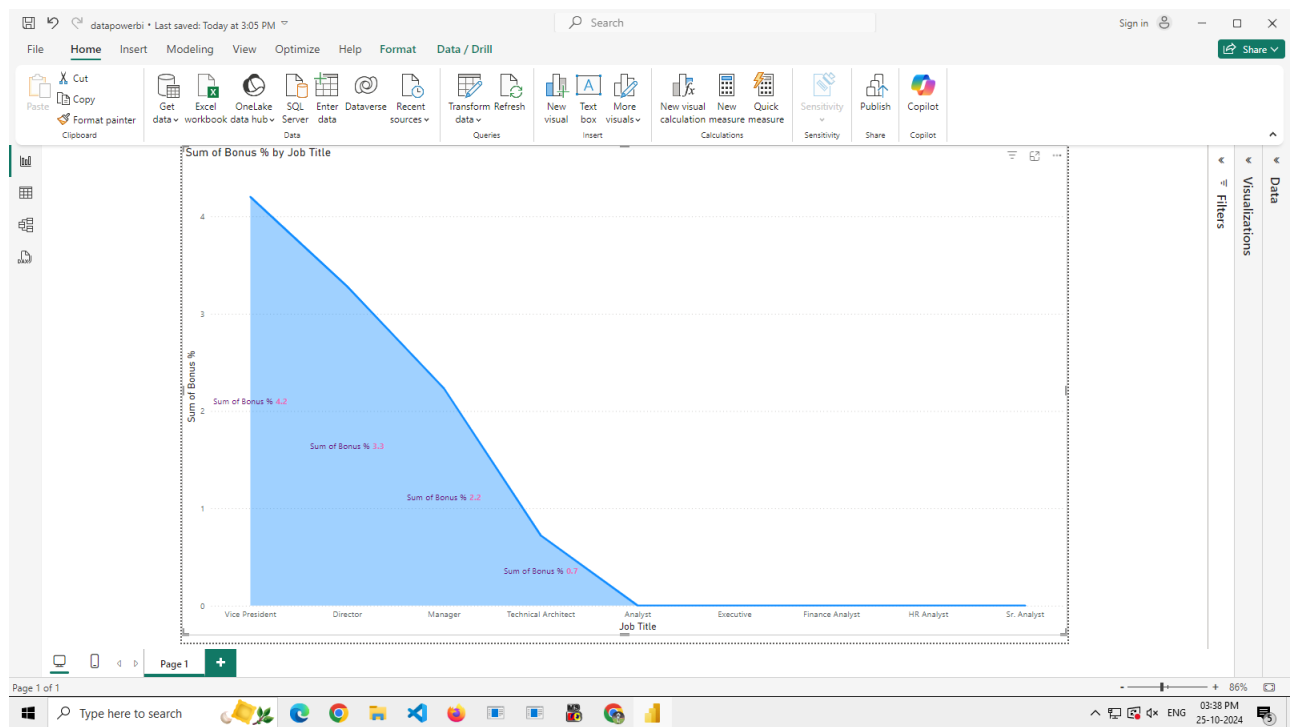
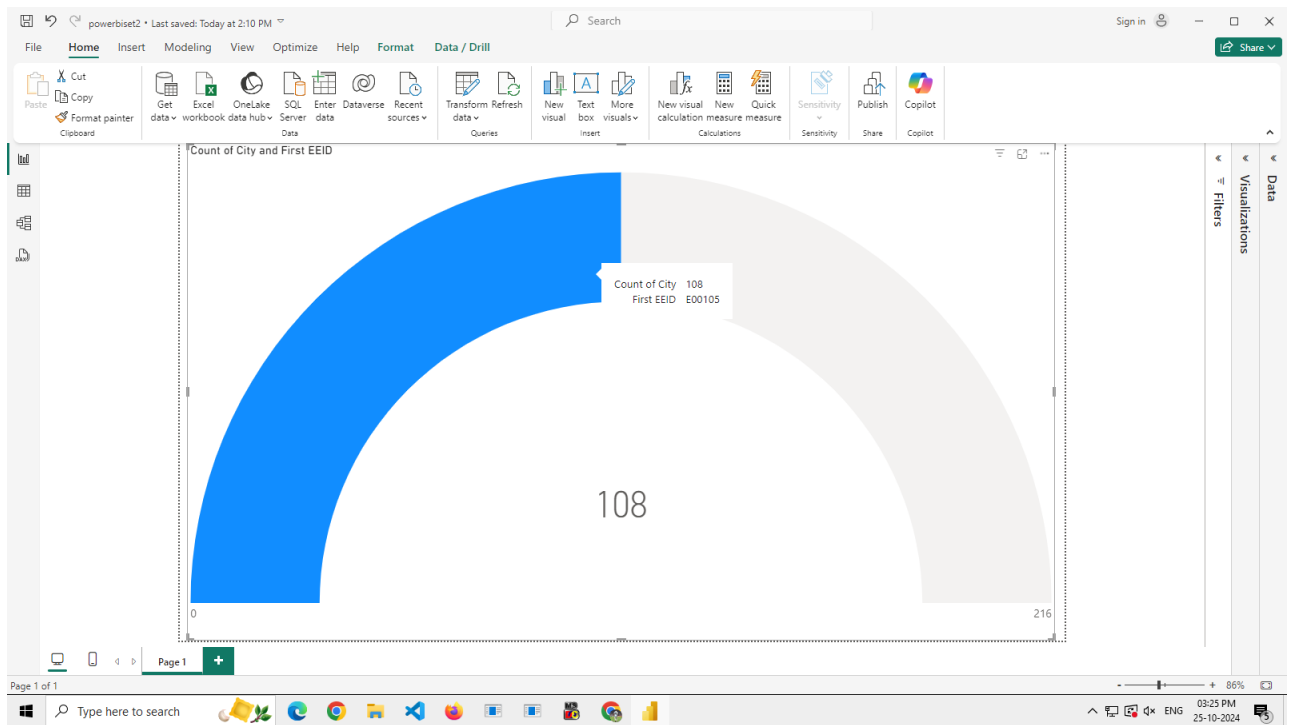
- **Choose Visualizations:** Select appropriate charts and graphs (bar, pie, line charts, gauges).
- **Create a Layout:** Organize visuals logically, prioritizing the most important metrics.
- **Add Filters:** Allow users to filter data by department, time period, or demographic groups.



Select **Human Resource Sample** from the workspace to return to the dashboard. You can choose to save the changes you've made to the report.

## ✚ **Bad hires**

- ✚ The last area to explore is bad hires. Bad hires are defined as employees who didn't last for more than 60 days. You're hiring rapidly, but are you hiring good candidates?
- ✚ Again, if you got the [built-in sample](#) in your workspace, in the dashboard, select the **Bad Hires as % of Actives by Age Group** dashboard tile. The report opens to tab three, **Bad Hires**.
- ✚ The two combo charts on the left show the year-over-year change for active employees and employee separations. You have more active employees this year due to rapid hiring, but also more separations than last year.
- ✚ In August, you had more separations compared to other months. Select the different age groups, genders, or regions to see if you can find any outliers.
- ✚ Select **Edit** in the upper-right corner.
- ✚ Select the **Active Employee Count by Age Group** pie chart.
- ✚ In **Data**, select **Employees** to expand the **Employees** table. Clear **Active Employee Count** to remove that field.
- ✚ Select **Separation Count** in the **Employees** table to add it to the **Values** box in the **Data** area.

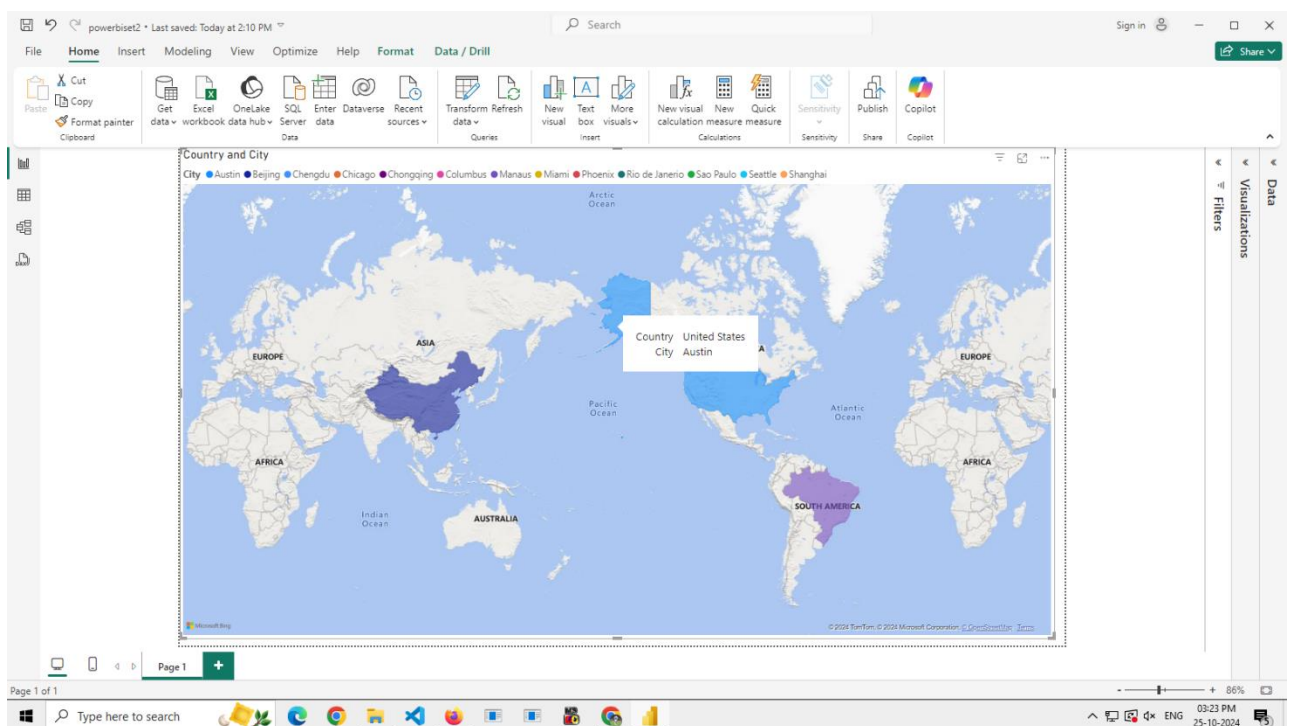


## Interactive:

- Implement slicers and drill-down options to enable users to explore data more deeply.
- Use tooltips for additional context on hover.

## 3. Publishing and Sharing:

- Publish the dashboard to Power BI Service for sharing with stakeholders.



- Set up scheduled data refreshes to keep information up-to-date.

**Keep it Simple:** Avoid clutter; focus on the most critical metrics.

- **Use Consistent Colors:** Maintain a color scheme that is consistent with your organization's branding.
- **Be Mindful of Accessibility:** Use alt text for visuals and ensure color contrast is sufficient for readability.

- **Gather Feedback:** After deployment, collect feedback from users to make improvements.
- **Train Users:** Provide training on how to navigate and interpret the dashboard effectively.

When creating an employee data analytics dashboard, it's important to gather and present detailed employee information. Here are some common employee details that you might want to include:

### **Employee Details to Include**

#### **1. Basic Information:**

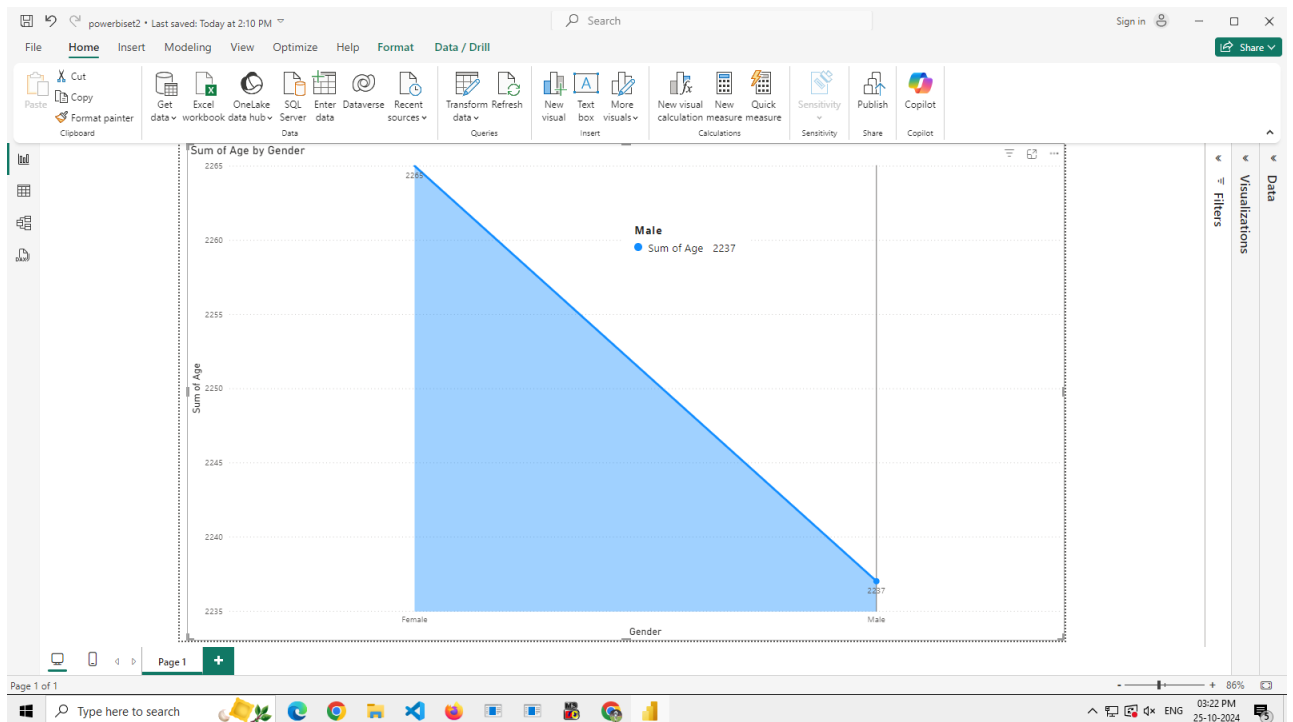
- Employee ID
- Name
- Job Title
- Department
- Location (Office/Remote)
- Hire Date
- Employment Type (Full-time, Part-time, Contract)

#### **2. Demographics:**

- Age
- Gender
- Ethnicity
- Nationality
- Languages Spoken

#### **3. Contact Information:**

- Email Address



- Phone Number
- Address

### Compensation and Benefits:

- Salary
- Bonus Eligibility
- Benefits Enrollment (Health, Retirement, etc.)
- Performance Review Scores

### 4. Performance Metrics:

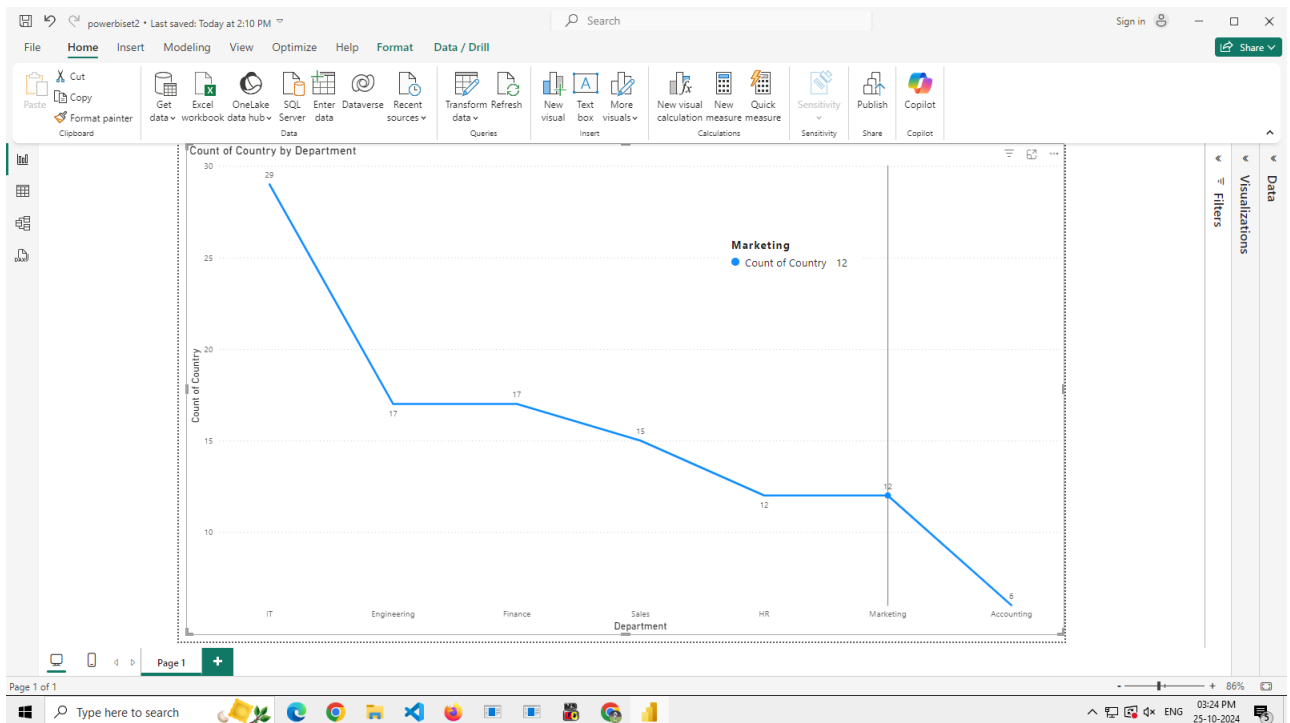
- Last Performance Review Date
- Goals Set vs. Achieved
- Training and Development Participation

### 5. Attendance Records:

- Sick Leave Taken
- Vacation Days Taken
- Total Days Absent

## 6. Engagement and Satisfaction:

- Employee Satisfaction Survey Scores
- Engagement Metrics (Participation in team events, etc.)



## Career Development:

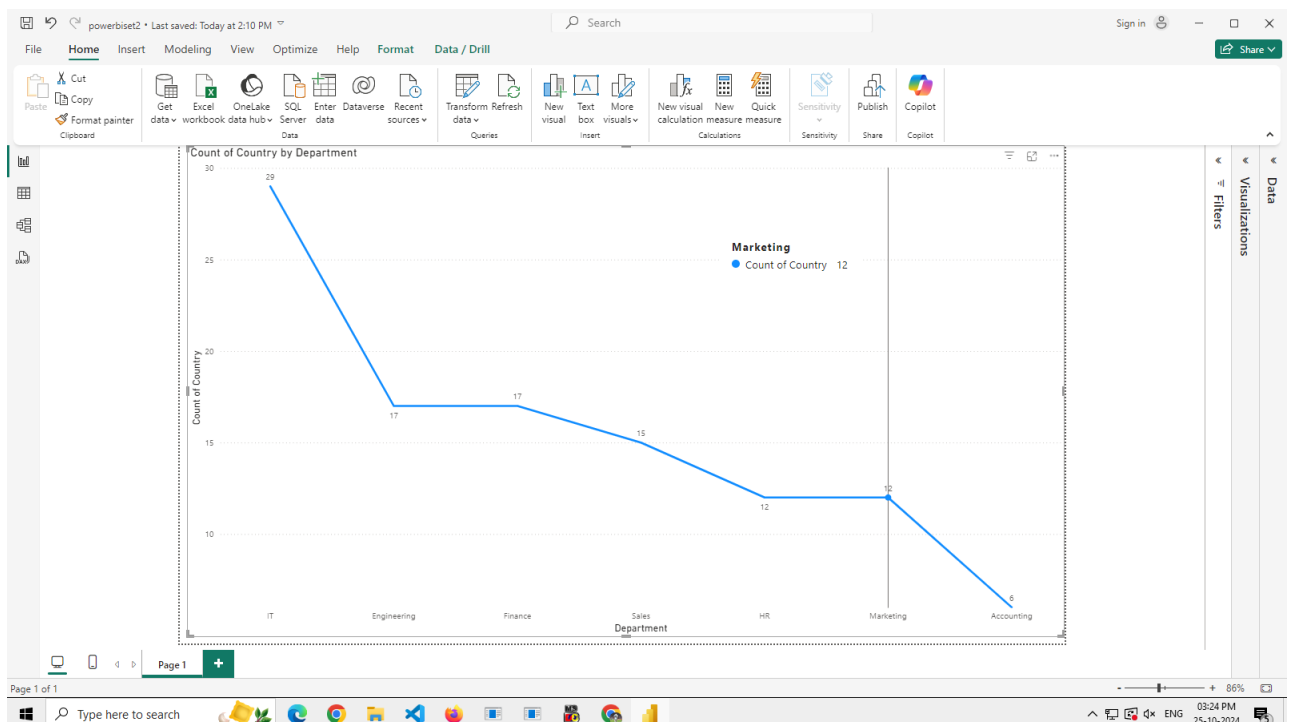
- Promotions Received
- Career Path Information
- Skill Assessments

## 7. Exit Data (if applicable):

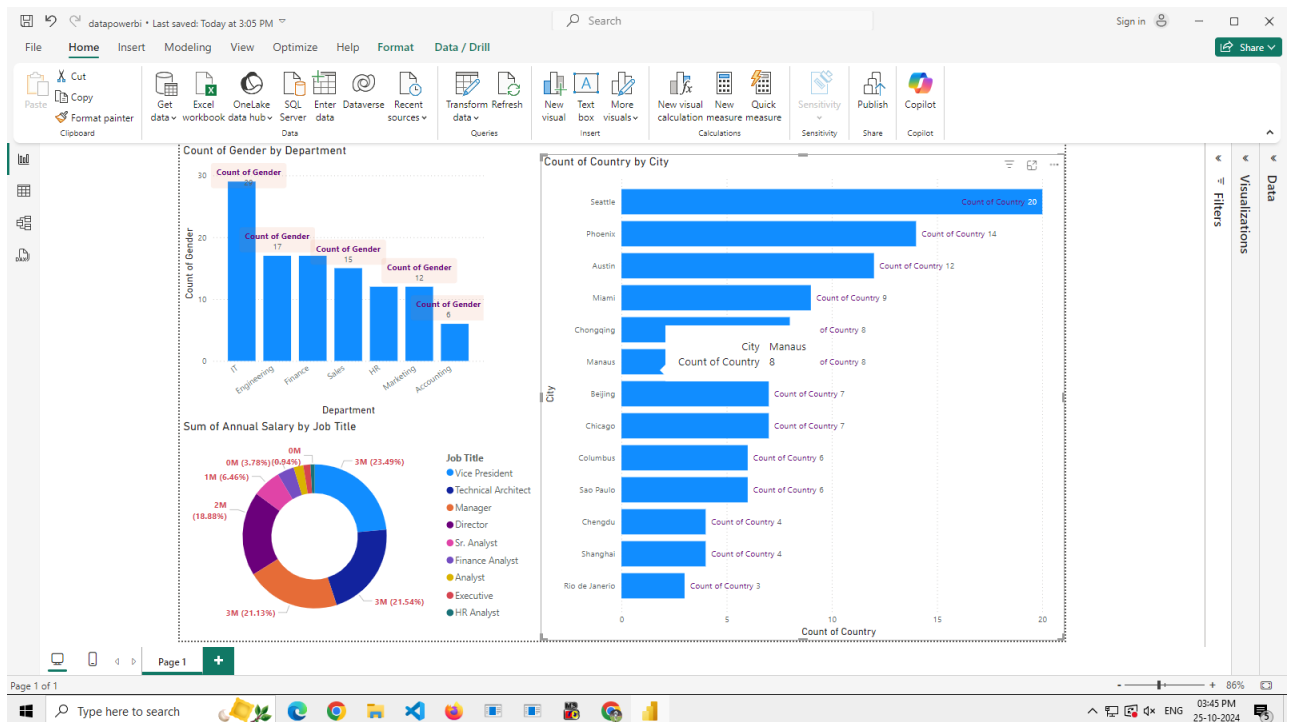
- Resignation Date
- Reason for Leaving
- Exit Interview Feedback

## How to Organize the Data

- **Tables:** Use tables for detailed employee records where users can sort and filter by different attributes.
- **Charts:** Visualize key metrics like age distribution, gender breakdown, and performance ratings using bar or pie charts.
- **Dashboards:** Summarize key information with KPIs (Key Performance Indicators) to provide a quick overview.



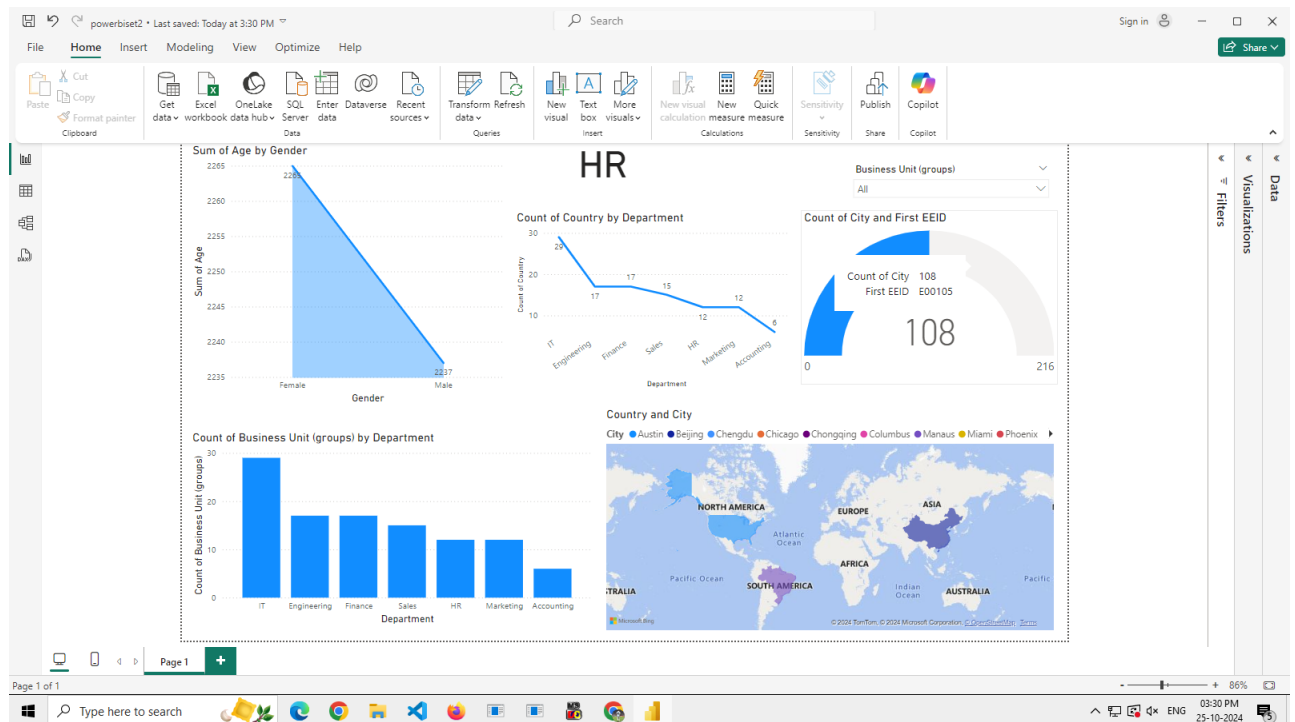




By incorporating these details, your employee analytics dashboard will provide a comprehensive view of your workforce, facilitating informed decision-making and strategic HR planning.

The **New Hire Count, New Hires SPLY and Actives YoY % Change by Month** combo chart shows that you hired more people every month this year compared to last year. Significantly more people in some months.

- In the combo chart **New Hire Count and Active Employee Count by Region and Ethnicity**, notice that you're hiring fewer people in the **East** region.
- The **New Hires YoY Var by Age Group** waterfall chart shows you're hiring mainly younger people. This trend might be due to the mostly part-time nature of the jobs.
- The **New Hire Count by Gender** pie chart shows a roughly even split.

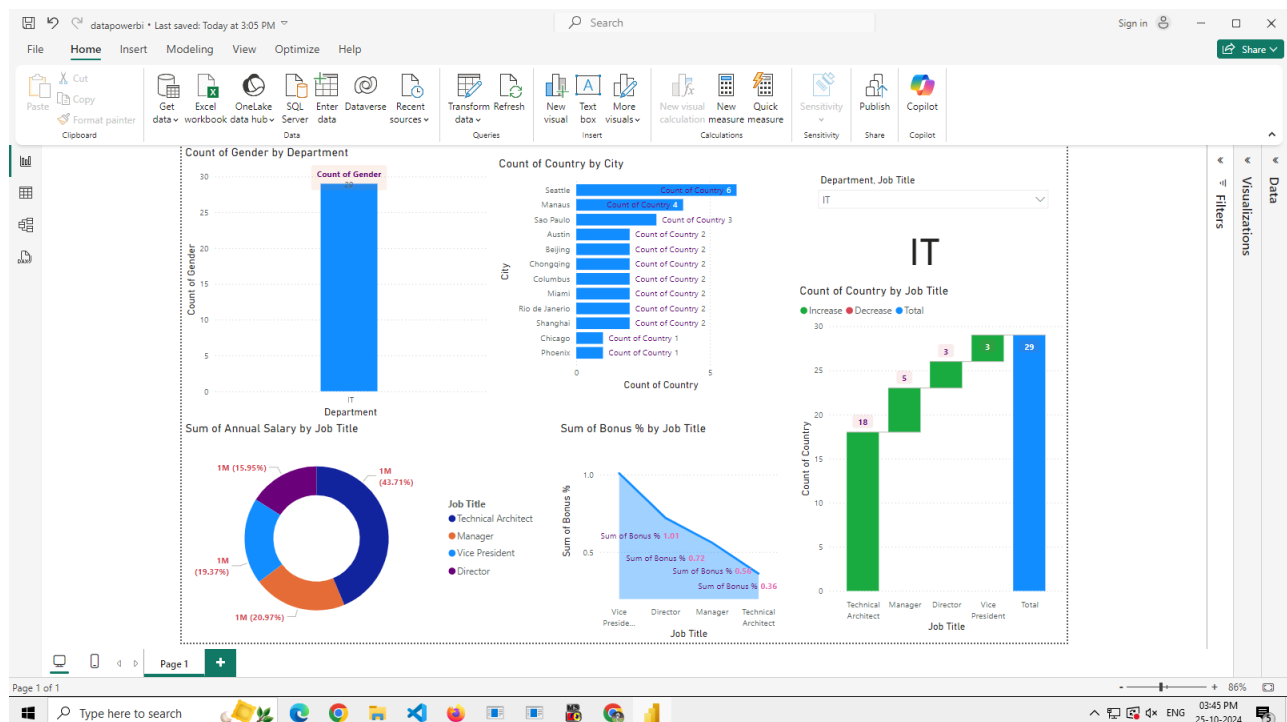


Can you find more insights? For example, a region where gender isn't evenly split.

Select different age groups and genders in the charts to explore the relationships between age, gender, region, and ethnicity group.

Select **Human Resources Sample** from the black **Power BI** header bar to see detailed information about the dashboard.

The Human Resources Sample report opens to the **Active Employees vs. Separations** page.



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## Compare currently active and former employees

Let's explore data for currently active employees and employees who no longer work for the company.

## Conclusion

In conclusion, implementing an employee dashboard using Power BI provides a powerful tool for organizations to enhance data-driven decision-making. By consolidating key performance indicators (KPIs) and employee metrics into a user-friendly interface, stakeholders can easily monitor performance, identify trends, and make informed strategic decisions. The visualizations facilitate deeper insights into workforce dynamics, such as productivity, engagement, and retention, enabling proactive management. Overall, a Power BI dashboard not only improves transparency but also fosters a culture of accountability and continuous improvement within the organization.