Hr Data Analysis

POWER BI (2)

Problem Statement

- The organization is facing challenges in **employee retention, performance management, and recruitment efficiency**.

- High **attrition rate (18%)** and low **employee engagement scores** are impacting productivity.

- Lack of a **data-driven HR strategy** makes it difficult to identify workforce trends and optimize resources

Approach

Data Collection
- Employee demographics, performance ratings, recruitment data, exit interviews, attendance.

Data Cleaning & Preparation
- Remove duplicates, handle missing values, standardize job roles and departments.

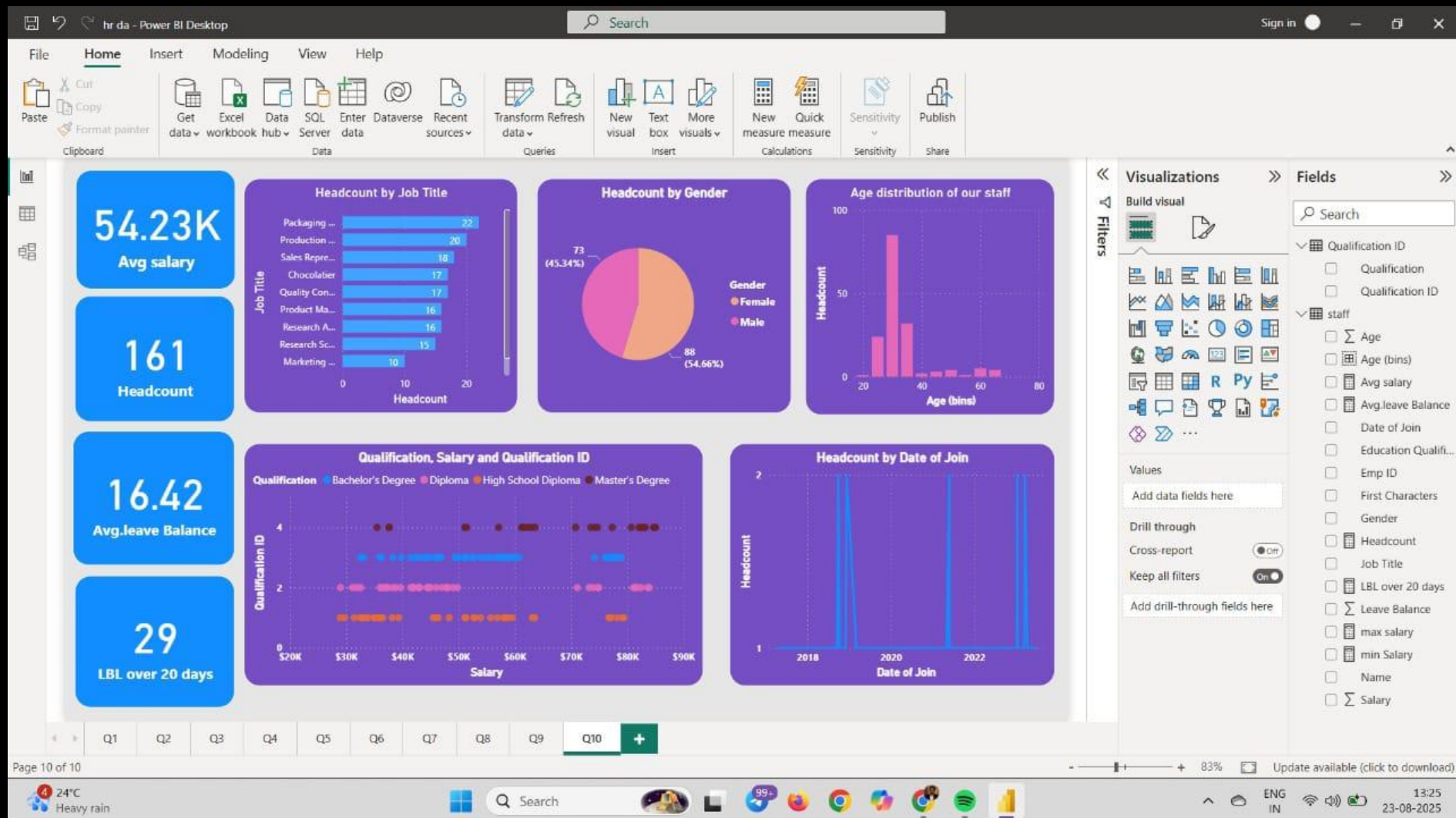**Exploratory Data Analysis (EDA)**
- Attrition trends by age, department, tenure, salary, job role.
- Recruitment funnel analysis (applications → shortlisting → hires).
- Performance vs. training hours correlation.

Visualization & Dashboarding
- Power BI / Excel dashboards for HR KPIs.

Insights & Recommendations
- Highlight problem areas and propose actionable strategies.

Key Insights

- **Attrition** is highest among employees with **<2 years tenure** and in the **Sales department**.

- **Training hours** positively correlate with higher performance ratings.

- Employees with **low salary bands** show **higher resignation rates**.

- Recruitment funnel analysis shows **drop-offs at interview stage (40%)**, indicating need for better candidate-job fit.

- **Diversity ratio** is skewed: only **28% female workforce** in leadership roles.

Business Impact

Data-driven insights will help **reduce attrition by ~10-12%**, saving recruitment and training costs.

Improved **employee engagement & training strategy** enhances productivity and performance.

Optimizing recruitment funnel will **reduce time-to-hire by ~20%**, ensuring quicker project staffing.

Balanced workforce diversity improves **brand reputation** and workplace culture.

Overall, HR analytics enables **strategic workforce planning** leading to **higher ROI per employee**.

Tools & Techniques

- **Data Cleaning & Preparation** → Excel, SQL, Python (Pandas).

- **Visualization & Dashboarding** → Power BI, Tableau, Excel.

- **Statistical Analysis** → Correlation, Regression, Attrition Prediction.

- **HR Metrics Used** → Attrition Rate, Retention Rate, Time-to-Hire, Diversity Ratio, Employee Performance Index.