**HR Analytics Dashboard – Internship Project Report**

**Abstract**

The **HR Analytics Dashboard** is an interactive business intelligence project developed to analyze workforce data and provide actionable insights into employee distribution, attrition, age demographics, and recruitment sources. The project focuses on converting raw HR data into meaningful visuals that support strategic HR decision-making. This dashboard empowers management to identify trends such as departments with high attrition, dominant age groups, and effective recruitment channels. Developed using **Microsoft Power BI**, the project highlights how data analytics can streamline HR processes, optimize workforce planning, and enhance employee retention strategies.

**Introduction**

During my **Data Analyst Internship**, I developed a comprehensive **HR Analytics Dashboard** aimed at understanding employee demographics, departmental distribution, and attrition behaviour. Human Resource departments often manage large amounts of employee-related data; this dashboard simplifies that complexity by transforming data into visually appealing and easily interpretable insights.  
The key metrics visualized in this project include **Total Headcount (311)**, **Attrition (104)**, **Average Age (46.41 years)**, **Average Salary (₹69K)**, and **Attrition Percentage (0.33%)**. Through this analysis, HR teams can identify workforce imbalances and improve hiring and retention strategies.

**Tools Used**

1. **Microsoft Power BI** – for data visualization and dashboard creation.
2. **Power Query Editor** – for data cleaning, transformation, and merging.
3. **DAX (Data Analysis Expressions)** – for custom metrics such as attrition rate, headcount, and average age.

**Steps Involved in Building the Project**

1. **Data Collection:**  
   HR employee data containing details such as employee ID, age, department, marital status, recruitment source, and attrition status was collected from the company’s HR records and Excel sheets.
2. **Data Cleaning and Preparation:**  
   Using **Power Query**, missing values and duplicates were removed, data types were standardized, and columns were renamed for consistency. This ensured data accuracy before modelling.
3. **Data Modelling and Measures:**  
   Relationships between key tables (Employee, Department, Recruitment) were established. DAX formulas were used to calculate *Attrition Rate*, *Average Salary*, *Average Age*, and *Headcount by Department*.
4. **Dashboard Design:**  
   The dashboard was designed using Power BI visuals such as bar charts, pie charts, KPIs, and line charts:
   * **Headcount by Department:** Production (209) dominates the workforce.
   * **Headcount by Age Bucket:** Majority of employees (49.2%) are aged 36–45.
   * **Headcount by Marital Status and Gender:** Most employees are single or married, with balanced gender representation.
   * **Recruitment Source Analysis:** Indeed and LinkedIn are the top hiring sources.
   * **Yearly Headcount and Attrition:** Growth in workforce with peaks in attrition around 2011–2012.
5. **Insights and Findings:**
   * The production department has the highest headcount and moderate attrition.
   * The organization is dominated by mid-career employees (36–45 years).
   * Recruitment is primarily sourced online via Indeed and LinkedIn.
   * Attrition trends indicate certain years with higher turnover rates, signalling potential management or satisfaction issues.

**Conclusion**

The **HR Analytics Dashboard** successfully demonstrates the power of business intelligence in human resource management. By visualizing data in Power BI, the project enabled efficient tracking of employee metrics, attrition trends, and recruitment effectiveness. This internship project enhanced my practical skills in **data cleaning, DAX, data modelling, and visualization design**, while also deepening my understanding of HR operations and analytics.  
Overall, the dashboard serves as a valuable decision-support tool that can help organizations maintain workforce stability, improve retention, and optimize hiring strategies.