

# Project Report: HR Data Analytics Dashboard using Power BI

---

## Introduction:

Embarking on the intersection of data analysis and human resources, I am thrilled to present a real-life Data Analytics project centred on HR Insights. The catalyst for this undertaking was a dataset graciously provided by the HR department, challenging me to distil meaningful insights into a user-friendly Presence Insights Dashboard. In this report, we will delve into the intricacies of the problem statement, the step-by-step solution implemented using Power BI, the invaluable takeaways from the process, and the profound inferences drawn from the derived insights.

## Problem Statement:

The HR department provided a real-life dataset on employee presence, seeking key insights on a Presence Insights Dashboard. Two primary areas of interest were:

- **Preference Analysis (WFH vs. WFO):**  
The HR sought to understand the employees' preferences between working from home (WFH) and working from the office (WFO).
- **Sick Leave Percentage (SL%):**  
The second objective was to find the Sick Leave Percentage (SL%) to track down and understand the reasons behind it.

## Solution:

### 1. Data Transformation:

- **Import from Excel to Power BI:**
  - Data sets were imported from Excel to Power BI as the initial step.
- **Power Query Transformation:**

- Employed Power Query to transform data sets, consolidating them into a final dataset.
- **DAX Formulas:**
  - Utilised DAX formulas to add various columns to the final dataset.
  - Created a measure table with key measures essential for building the dashboard.

## 2. Dashboard Creation:

- **Presence Insights Dashboard:**
  - Developed a user-friendly dashboard in Power BI.
  - **Key visuals included:**
    - Presence Percentage: Indicates the percentage of presence with respect to total working days.
    - WFH Percentage (WFH%): Reflects the Work From Home Percentage with respect to total present days.
    - Sick Leave Percentage (SL%): Represents the Sick leave percentage with respect to total working days.
- **Additional Features:**
  - Date tab in month-year format for monthly insights.
  - Table visual displaying Presence Percentage, WFH Percentage, and Sick Leave Percentage by employee names.
  - Matrix visual showing attendance sheet values of employees in a day-by-day format.
  - Three area charts with trends for Presence Percentage, WFH Percentage, and Sick Leave Percentage by date.
  - Three table visuals illustrating the highest day of the week in each category.

## Solution Takeaways:

Learned essential skills during the project:

1. **Efficient Googling:**
  - Utilised effective online research skills to gather information crucial for the project.
2. **Dynamic Data Transformation:**

- Employed dynamic and efficient data transformation techniques using Power Query.
- 3. Strategic Grouping of Measures:**
    - Grouped measures strategically to streamline and organise the analytical process.
  - 4. Understanding the Calculate Function in DAX:**
    - Gained a comprehensive understanding of the Calculate function in DAX for effective data analysis.
  - 5. Creating Additional Columns using DAX:**
    - Utilised DAX to create additional columns, enhancing the dataset for insightful analysis.
  - 6. Strategic Placement of Dashboard Elements:**
    - Positioned critical insights strategically within the dashboard for easy comprehension by stakeholders.
  - 7. Encouraging "Whys" in Insights Reports:**
    - Aimed to create insights that prompt stakeholders to ask meaningful questions, fostering deeper understanding.
  - 8. Productivity Boost: Copy-Pasting Visuals:**
    - Implemented time-saving strategies, such as copying and altering visuals, to enhance productivity.

## Inferences:

- 1. Team Building on High-Attendance Days:**
  - Mondays and Tuesdays exhibited high attendance, suggesting ideal days for team-building activities at the office.
- 2. Proactive Measures for Sick Leave Percentage:**
  - By analysing sick leave percentages, the HR can identify medical issues or other factors. Proactive measures, including medical help or precautions, can be implemented to reduce sick leave.
- 3. Hybrid Work Model on Fridays:**
  - Insights revealed a preference for WFH on Fridays. The HR can make informed decisions such as scheduling infrastructure-related work or implementing a turn-by-turn employee presence process for in-office work, potentially optimising infrastructure utilisation and reducing costs.

#### 4. Automated Email Alerts for Low Presence:

- Automated email alerts were implemented for low presence (<70%), ensuring timely actions are taken.

#### 5. Automated Data Gathering via SharePoint:

- Connected to a SharePoint folder for automated data updates every hour, contributing to effective time management without manual data uploads.

#### 6. Access Privileges for Employee and Management Dashboards:

- Established access privileges by creating separate dashboards for employees and management. Both dashboards run on the same dataset, ensuring data consistency while providing access based on roles.

## Acknowledgment:

Special thanks to **Hemanand Vadivel & Dhaval Patel** from the **Code Basics YouTube channel**. Their tutorials were instrumental in creating this HR Data Analytics project.

## Feedback:

Seeking valuable feedback on the Power BI dashboard to enhance its effectiveness and continue learning in the field of data analytics.

Thank you for your time and consideration.

*Mainak Bhattacharjee*

#### Github link:

[https://github.com/Mainak18/Presence\\_Insights\\_HR\\_Data\\_Analyst](https://github.com/Mainak18/Presence_Insights_HR_Data_Analyst)

11/11/2023

---