

Employee Productivity & Attendance Tracker

Overview: This project focuses on tracking and analyzing employee productivity, attendance, and overtime, with the goal of improving workforce management and operational efficiency. By leveraging Power BI's advanced data visualization features, I created a comprehensive dashboard that integrates data from multiple sources, providing key insights into employee performance, attendance patterns, and overtime trends.

Key Features:

1. Employee Productivity Tracking:

- The **Productivity** table captures each employee's performance, including the number of tasks completed and total hours worked.
- The **Productivity Score**, calculated as a percentage, is visualized using both line charts and stacked bar charts to compare individual employee performance across different periods.
- Overtime hours are analyzed separately, with an overtime calculation and visualization alongside the productivity metrics.

2. Attendance Analysis:

- The **Attendance** table logs employee presence, marking the status for each day (e.g., Present, Absent, Leave).
- An **Attendance Rate** is calculated to determine the proportion of working days each employee was present, offering insights into attendance patterns and possible trends.
- This data is visualized using line charts, with the ability to filter by employee, department, or date range.

3. Date Table Integration:

- A **Date Table** is used to enable comprehensive time-based analysis. It allows for filtering and aggregation across daily, weekly, and monthly periods.
- The Date Table supports comparisons between different months or timeframes, which is essential for tracking productivity and attendance over time.

4. Interactive Dashboards:

- Slicers are implemented for easy filtering by employee, department, or date range, enabling decision-makers to drill down into specific subsets of the data.
- The visualizations allow for identifying trends such as employees who consistently meet or exceed productivity goals, as well as those who may need additional support or training.

5. Visualizations:

- **Line Charts:** Track attendance over time and employee productivity trends.
- **Stacked Column Charts:** Visualize the relationship between productivity scores and overtime hours for individual employees.
- **Slicers and Filters:** Empower users to interact with the data, making it easy to focus on specific employees, departments, or time periods.

Impact: This dashboard enables managers to monitor employee performance and attendance, make data-driven decisions, and identify areas for improvement. The insights derived from this tracker help in optimizing staffing levels, reducing overtime costs, and enhancing overall workforce productivity.

Technologies Used:

- **Power BI** for data visualization and analysis
- **DAX** for custom calculations and metrics (e.g., Productivity Score, Attendance Rate, Overtime)
- **Power Query** for data cleaning and transformation

