* Introduction

The Employee Management and Attendance Tracker project aims to design and implement a comprehensive database system for managing employee information and tracking attendance. This project utilizes PostgreSQL to create tables, insert dummy data, write queries, and generate reports.

* Abstract

This project involves creating a database schema for employees, departments, roles, and attendance. We inserted dummy data, wrote queries for monthly attendance and late arrivals, and created triggers for timestamp and status updates. Additionally, we developed functions to calculate total work hours and generated reports using GROUP BY and HAVING clauses.

* Tools Used

1. PostgreSQL

2. SQL

* Steps Involved in Building the Project

**1. Create Tables:** Designed and created tables for employees, departments, roles, and attendance.

**2. Insert Dummy Data:** Inserted sample data into the tables.

**3. Write Queries:** Developed queries for monthly attendance and late arrivals.

**4. Add Triggers**: Created triggers for timestamp and status updates.

**5. Create Functions:** Developed functions to calculate total work hours.

**6. Generate Reports:** Generated reports using GROUP BY and HAVING clauses.

* Conclusion

The Employee Management and Attendance Tracker project demonstrates the effectiveness of PostgreSQL in managing employee information and tracking attendance. The project showcases the importance of database design, querying, and reporting in a real-world scenario. This project can be further enhanced by incorporating additional features and functionality.

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