

Payroll Management Systema for Trimeca S.A Company

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Overview

Trimeca S.A. a leader in manufacturing and engineering, aims to streamline its payroll management with a new system that automates payroll processing, manages allowances and deductions, and generates insightful reports. The system will enhance efficiency and compliance, targeting employees, management, HR, and finance departments through a web portal and mobile app. Key resources include payroll specialists, IT support, secure databases, and cloud infrastructure. This system will reduce administrative burdens, ensure accurate payments, and improve employee satisfaction, supporting Trimeca's strategic goals.

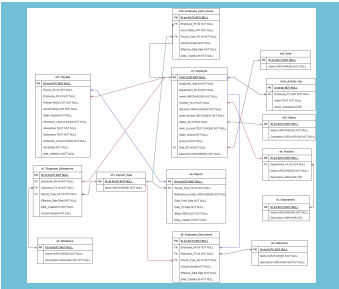
Objectives

- Develop a well-structure and normalized database tailored for efficient payroll processing.
- Implement a variety of SQL queries to facilitate user interaction with the system.
- Develop RESTful web services to execute database queries, enabling smooth integration with the web portal.

Technologies Used

- For developing Web Services:
- FastAPI
 - SQLAlchemy
 - Pydantic
 - Uvicorn
 - Psycpg2-binary
- For creating de Database:
- PostgreSQL
 - DBeaver

Database Design



The payroll management system manages allowances and deductions efficiently, integrated through RESTful web services. The ER diagram illustrates the robust database structure underpinning the system, showcasing entities such as Employee, Department, Position, Payroll, and related associations.