

Project Description

Domain of the Application

The domain of this application is the shipping industry and involves logistics, parcel delivery, and parcel tracking. In this project we will build a database system that a parcel shipping company could use to manage its customers, orders and deliveries.

Aspects of Domain Modeled by the Database

The database models the major aspects of a parcel delivery system. This includes different users who would have a role in a parcel's delivery (such as customers, drivers, managers, etc), and information about the order itself (parcel information, tracking updates, etc).

Database Specifications

Functionality of the Database

The database stores information about customers, delivery drivers, and managers, as well as parcel and order information (such as tracking information, order transactions, and which drivers are delivering the orders with their tracking updates). Queries on the database allow new orders to be created, customers to track those orders, managers to dispatch orders, and drivers to update the tracking status of the delivery.

Use Case Example

A use case for our project would be a customer wanting to have a package delivered from one location to another. This system will help the shipping company store needed information to organize and track the delivery of the parcel.

The customer can submit parcel information and an order request to the company. In return, a delivery transaction is priced based on the order details and delivery specifications. A manager assigns the order to be delivered by a driver, who will use a vehicle from a company branch to pick up and deliver the package. Throughout the delivery process, tracking information will be updated and available to the user. When the order has been delivered, the transaction will be complete and the customer will receive notification of its completion.

Application Platform

Java Database Connectivity and Oracle will be the platform for our project. We used Java to build out the backend and frontend of the project, which allows the user to interact with the database.