Brenton Bazemore, Hector Robinson Jr., Ryan Anderson

(bbazemo2, hrobins3, randers6)

CSCI 4400 Intro to Database System

Team Project: Lawn Enforcement: Lawn Care Company

Brenton: Wrote Report

Hector: Designed Entity Relationship Diagram

Ryan: Optimized entity relationships

Lawn Enforcement

The company that we are building this database for is Lawn Enforcement. Lawn Enforcement is a lawn care company that cuts grass, trims bushes, and more. They provide these services to many customers by dispatching a team of employees to a customer. Once the employees arrive, they begin transforming an unruly yard into a work of horticultural art. To accomplish this, the employees need equipment. The equipment is held in storage until it is required. Any given employee can checkout any piece of equipment from storage. After they are done using the piece of equipment, they must return the equipment to storage. In addition to the employees on each team, there is also a manager for each team. They are essentially the team leader.

The database will keep track of: each customer, which team last serviced any given customer, who is on a specific team, who is managing each team, and which equipment was last used by which employee. There are also some business rules set in place by the company:

* Each team can service many customers, but customers can only be serviced by one team at a time;
* Each manager can manager many employees, but each employee can only have one (or fewer) managers;
* Each team can consist of many employees, but each employee can only be on one team;
* Each employee can be the last to use many pieces of equipment, but there may only be one employee who was the last to use any given piece of equipment;
* Each team will have one manager, but each manager can only manage one team;

All three of us are business experts for this project. While we may not have worked for Lawn Enforcement specifically, we have all worked for some form of lawn care service in the past. This has provided us ample firsthand experience necessary to design and implement a database for this company.

This database will provide better organization for the company as a whole. Previously, equipment usage went untracked. With the use of this database, the employee to last use any given piece of equipment and whether or not it is in storage will be recorded and maintained in the database. This will allow equipment to be tracked more efficiently and prevent accidental loss or theft from going unnoticed.

Customer information was also neglected in the old system. If there was a repeat customer, they would need to provide all of their information again, despite having already given it to the company previously. This inconvenience can be remedied by the use of the database. The database will store basic information about the customer, such as: their name, address, contact information, and which team last serviced them.

Employee information will also be stored inside the database. This information will include: there name, address, employment status, and who their manager is. In addition to a list of employees, there will also be a separate entity just for managers. This will store information about of all of the managers and who each manager is managing. It should also be noted that managers will be stored in both the employee table and the manager table.

The main goal for creating this database is to completely organize all aspects of the company. Previously, information was easily lost or maintained incorrectly. It will improve data management and overall efficiency if all of the data is stored in one place instead of scattered across several sources.

The primary users of the system will be managers. They will have access to all of the information about their teams and the customers that they are servicing. They will need to add and update records regularly to keep information in the database up-to-date. In addition to the managers, the CEO will also be accessing the database.