

Group 1:

Pool it Together

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Pool it Together

Swimming Pool Retail and Service Planning App

Mission Statement:

Our mission is to make the management of a seasonal business smoother for a family-owned pool store that both sells chemicals, pool toys, and other merchandise as well as provide service on pools to create a well-rounded business model. Our application will give a real-time view of inventory and contractor management so that data can be seen and acted upon by managers with ease. This will improve efficiency within the business, reduce costs for contractors, and improve relationships between the business and its customers by fulfilling projects in a time-efficient manner.

Problem Statement:

For a swimming pool company, business is seasonal and with that comes unique challenges with project and inventory management. Retaining employees is difficult with the seasonal nature of the business, so they usually rely upon contractors to perform service work for customers. As a small mom and pop shop, having effective reporting tools in these often complex business structures is far and few between. Keeping track of swimming pool details for each customer, their past services and product purchases, and which contractor worked on those projects requires a lot of organization. Without connecting data sources, it will be difficult for managers to view the overall scope and functions within the business.

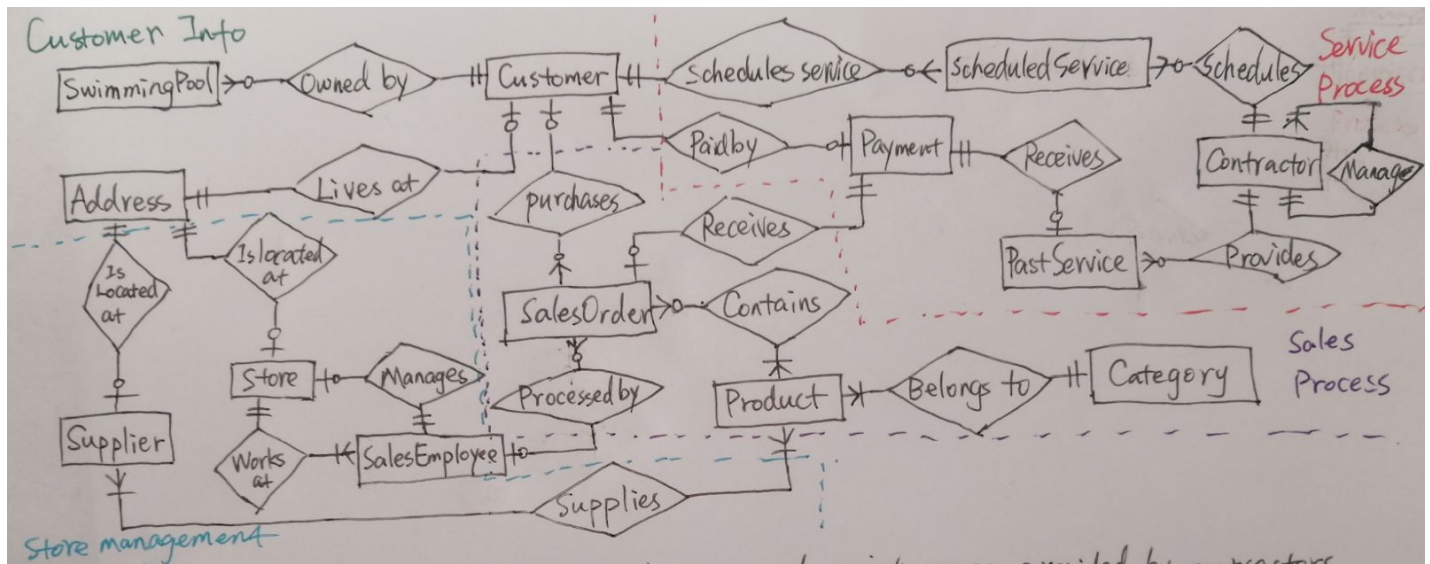
This is a problem that can affect the efficiency of the organization, and beyond that it can also affect the ability to hire capable contractors for service jobs. In this kind of business, it is especially important to build trust among contractors with expedited payment so that our business has reliable options to perform all the jobs our customers need. Especially when we have multiple large projects going on at one time, it is difficult to keep track of which jobs are being fulfilled and which jobs are yet to be completed, and the payments associated with each. In addition, considering the nature of working on a swimming pool, some service jobs can be quite pricey resulting in longer waits for a customer to fully pay off the service fee. If we fail to organize the structure of the business effectively, we can lose contractors to larger businesses, showing the importance of a mutual trust that keeps contractors from working for our competitors and leaving us with no one to complete projects. Our database will keep track of past and future services to make sure all projects are paid off and contractors get their money in a timely fashion.

In the retail store, it is not unlikely for data to be entered incorrectly when someone is making a purchase or returning an item, or to run out of stock on items that are particularly popular. Other problems arise often, with the store being overstaffed or understaffed and high priority tasks are sometimes left unfinished when it is pertinent that they be handled immediately. Keeping enough parts in stock for customers that visit the store with unique questions about their swimming pool can be difficult as every year there are new models and different parts to work with each, so ordering directly from the supplier to complete a project is a common occurrence.

These separate issues that happen on a daily basis can lead to jumbled data reporting in the moment, resulting in issues for managers that use the data to make decisions for the business. This all makes analyzing data on the back-end extremely difficult to keep the business running smoothly and to make any improvements beyond everyday functions. Our database aims to relieve all of these issues and boost overall business efficiency so that competing with larger businesses will no longer be as difficult. The database will keep track of inventory, sales orders, service projects, and the billing rate for each contractor. Managers can then use our app to see an overview of how everything is running to make sure they are on track and to also find areas for improvement. This can all be done by looking at historical or real-time data, depending on the managers' needs.

ER Diagram

Conceptual Model



- * services are mainly about swimming pool repair and maintenance, provided by contractors.
- * Sales business includes in store sale and online sale.
- * shipment about online purchase is processed by third party, not been tracked.

ER Diagram

Physical Model

Pool it Together - Providing swimming pool products and services

