Team 4

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**Asphalt Construction Operations Database**

Responsibilities:

Davita Verma - CEO

Joelle Siong Sin - CCO

Cayden Sewell - Primary Client Liaison

Rupali Sarathy - Database Designer

Chandni Jain - Database Designer

Jessie Raulio (Jelo) Francisco - Database Designer

Khoa Nguyen - Data Analyst

Lea Huynh - Data Analyst

Marco Morales - Data Analyst

Asphalt Construction:

Address: 32978 Auberry Rd, Auberry CA 93602

Phone Number: 559-855-7283

Email: dawnasphaltconstruction@gmail.com

Asphalt Construction Company is a small paving company based out of Prather, California. They are a well-respected company throughout the Central Valley, working with around fifty clients every year. They specialize in asphalt paving, from driveways to parking lots, and everything in between. They provide customized services to each customer by getting to know them personally, which contributes to their solid client base and continued success.

This company is owned and operated by the family of one of our group members (Cayden Sewell). This is how we were able to make contact with the client and will keep in contact with them throughout the semester. They were very enthusiastic (on a 10-point scale: 8) about the project, and are readily available to answer any questions we may have.

Asphalt Construction has a small staff of seven employees, most of which are family members. They have lots of data that could be recorded, including:

1. Revenue from projects
2. Employee hours and pay
3. Client order information, including square footage and location
4. Appointments for job inspections and estimates
5. Costs from materials needed for job and machinery repairs
6. Information about jobs, like how long it takes to complete, client information, and any complaints

Asphalt Construction currently uses Quickbooks to keep track of their expenses for tax purposes. Besides this, they do not keep any records or data for the company.

The team agreed that the receptiveness, business need, and the client’s accessibility/ease of contact make them an ideal client to build a database for. The enthusiasm of the owner, coupled with their frequent availability, will facilitate more insightful discussions with the added benefit of convenience. Our team also believes that this small, family-run business will find the highest utility for a database among all our potential clients. This complements one of our member’s close relationship with the business and, consequently, our familiarity with their operations and their potential challenges. By partnering with Asphalt Construction Company, we not only have the opportunity to practice our skills but also to make a meaningful impact on a local business in California.

A Database Management System (DBMS) offers small businesses like Asphalt Construction a range of advantages, efficient data organization, reporting and analytics capabilities, and scalability. While Asphalt Construction currently relies on Quickbooks for recording financial data for tax purposes, this solution may prove insufficient as the company expands, potentially leading to data inconsistencies and management challenges. To support the company's growth and success, they will need a more comprehensive database beyond Quickbooks. The result of the database project can centralize and organize various aspects of Asphalt Construction, such as client information, project management, employee data, and inventory tracking, which provide a holistic view of the company's operations. The company can easily monitor project timelines, allocate resources effectively, and ensure projects are completed on time and within budget. Moreover, a well-designed database can provide Asphalt Construction valuable insights through data analysis. Asphalt Construction can perform data analysis to identify trends, forecast demand, and optimize pricing strategies to further enhance its competitiveness.