Red River College
Business Information Tecnology
Full-Stack Web Development
Ecommerce Rails Project

Members:

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Description of the E-commerce Site.

Business Name: AutoElite

Business Description: AutoElite is a well-established automotive dealership that has been in business for over a decade. The company has a team of dedicated professionals, including sales representatives, mechanics, and administrative staff, totaling 30 employees. Specializing in premium and luxury cars, AutoElite has gained a reputation for providing high-quality vehicles and excellent customer service.

Currently, the company operates through a physical showroom where customers can visit, explore the cars, and make their purchase decisions. However, recognizing the growing trend of online shopping, AutoElite has decided to expand its reach by launching an e-commerce site. The new website will offer customers the convenience of browsing, selecting, and purchasing their dream cars from the comfort of their homes.

Number of Employees AutoElite currently has 30 employees. This includes a team of dedicated professionals, such as sales representatives, mechanics, and administrative staff, who contribute to the overall operation and success of the business.

Type of Product: AutoElite focuses on selling a range of premium and luxury cars, including sedans, SUVs, sports cars, and electric vehicles. The inventory consists of both new and certified pre-owned vehicles, ensuring customers have a variety of options to choose from.

Current Sales Strategy: The company currently relies on its physical showroom for sales, where customers can interact with sales representatives, take test drives, and finalize their purchases. The decision to create an e-commerce site is driven by the desire to tap into the online market and cater to customers who prefer to shop for cars digitally.

Target Demographic: The target demographic for AutoElite's online store consists of tech-savvy individuals who prefer the convenience of online shopping. The primary audience includes busy professionals, entrepreneurs, and car enthusiasts who value premium and luxury vehicles. The online platform aims to attract customers from various demographics, ranging from young professionals looking for their first luxury car to established individuals seeking the latest models and features.

Database Structure Description.

Table 1: USA_Cars
- **Columns:**
    - id (Primary Key, Auto-increment): Unique identifier for each car entry.
    - price (Decimal): The price of the car.
    - brand (VARCHAR): The brand or manufacturer of the car.
    - model (VARCHAR): The model of the car.
    - year (Integer): The manufacturing year of the car.
    - title_status (VARCHAR): The status of the car's title (e.g., clean, salvage).
    - mileage (Decimal): The mileage of the car.
    - color (VARCHAR): The color of the car.
    - vin (VARCHAR): Vehicle Identification Number.
    - lot (Integer): Lot number associated with the car.
    - state (VARCHAR): The state where the car is located.
    - country (VARCHAR): The country where the car is located.
    - condition (VARCHAR): The condition of the car (e.g., new, used).
    - manufacturer_id (Foreign Key): References Manufacturers.id.

Table 2: Manufacturers

- **Columns:**
    - id (Primary Key, Auto-increment): Unique identifier for each car entry.
    - name (VARCHAR): The name of the manufacturer.
    - site (VARCHAR): Official website of the manufacturer.

Table 3: SocialMedia

- **Columns:**
    - id (Primary Key, Auto-increment): Unique identifier for each social media entry.
    - manufacturer_id (Foreign Key): References Manufacturers.id.
    - twitter (VARCHAR): Twitter profile of the manufacturer.
    - facebook (VARCHAR): Facebook profile of the manufacturer.
    - instagram (VARCHAR): Instagram profile of the manufacturer.
    - youtube (VARCHAR): YouTube profile of the manufacturer.
    - linkedin (VARCHAR): LinkedIn profile of the manufacturer.

Table 4: Payment

- **Columns:**
  - **payment_id**: Unique identifier for each payment.
  - **order_id**: Foreign key referencing the **Order** table to associate the payment with a specific order.
  - **payment_date**: Timestamp indicating when the payment was made.
  - **amount**: The amount paid for the order.
  - **payment_method**: The method used for the payment (credit card, PayPal, etc.).
  - **transaction_id**: An identifier for the payment transaction.

Table 5: Customer

- **Columns:**
  - **user_id**: Unique identifier for each user.
  - **first_name**: First name of the user.
  - **last_name**: Last name of the user.
  - **email**: Email address of the user (should be unique).
  - **password**: Hashed or encrypted password of the user.
  - **address**: Address of the user.
  - **phone_number**: Phone number of the user.
  - **user_type**: Indicates whether the user is a customer or an admin. This is a string column with a check constraint allowing only 'customer' or 'admin'.

Table 6: Order

- **Columns:**
  - **order_id**: Unique identifier for each order.
  - **customer_id**: Foreign key referencing the **Users** table, representing the customer who placed the order.
  - **car_id**: Foreign key referencing the **Cars** table, representing the car included in the order.
  - **order_date**: Timestamp indicating when the order was placed.
  - **total_amount**: Total amount of the order.
  - **status**: Status of the order (e.g., pending, shipped).

ERD (Entity Relationship Diagram):

USA_cars

PK	car_id
	price
	brand
	model
	year
	title_status
	mileage
	color
	vin
	lot
	state
	country
	condition
FK	manufacturer_id

Manufacturers

PK	id
	name
	site

SocialMedia

PK	id
FK	manufacturer_id
	twitter
	facebook
	Instagram
	YouTube
	TikTok
	LinkedIn

Order

PK	order_id
FK	customer_id
FK	car_id
	order_date
	total_amount
	status

Payment

PK	payment_id
FK	order_id
	payment_date
	amount
	payment_method
	transaction_id

Customers

PK	user_id
	name
	phone_number
	email
	password
	address
	user_type