

Electric Vehicle Conversion Database **Management System**

Business Case:

Electric vehicles (EVs) have been gaining popularity in recent years due to their environmental benefits, such as lower emissions and better energy efficiency. Moreover, the cost of EVs has been decreasing, making them more affordable for customers. As a result, the demand for EVs has been steadily increasing, and so has the interest in converting conventional vehicles to electric vehicles. The conversion process involves multiple stakeholders, including customers who own the vehicle, vendors who supply the necessary parts and equipment, and service providers who perform the conversion. Managing the progress of each conversion project can be challenging since it involves tracking orders, managing inventory, coordinating between stakeholders, and ensuring timely completion of the project.

To address this problem, the proposed system aims to develop an effective system for tracking customers, vendors, and orders in an electric vehicle conversion database management system. The system will help manage the entire process of converting conventional vehicles to electric vehicles by providing a centralized database that tracks the progress of each project. This system will enable the company to efficiently manage its inventory, track orders, and monitor the progress of each conversion project. The proposed system will also help improve customer satisfaction by providing timely updates on the status of their conversion project. Additionally, it will help vendors and service providers by providing them with the necessary information to fulfill their orders efficiently. Furthermore, the system will enable the company to monitor the quality of parts and services provided by vendors and service providers.

Overall, the proposed system will improve the efficiency of the conversion process, reduce costs, increase customer satisfaction, and ultimately lead to increased revenue and profitability for the company.

Problem Selection:

The process of converting conventional vehicles to electric vehicles involves multiple stakeholders, including customers, vendors, and service providers. It can be challenging to manage the progress of each conversion project and track the status of parts and services. This can lead to delays, cost overruns, and customer dissatisfaction. Therefore, there is a need for an effective system to track and manage the conversion process of electric vehicles.

Project Execution:

The proposed electric vehicle conversion database management system will offer numerous benefits to the company. Firstly, the system will enable efficient tracking and management of the entire conversion process, ensuring that all stakeholders are on the same page and any issues are promptly addressed. This will lead to a reduction in delays, cost overruns, and customer dissatisfaction, ultimately improving customer satisfaction and retention.

Secondly, the system will provide valuable insights into the conversion process, including the status of parts and services, timelines for completion, and any bottlenecks or challenges that arise. This will allow the company to optimize its processes and identify areas for improvement, leading to increased efficiency and reduced costs.

Finally, the system will enable the company to track and manage customer information, order information, and vendor information, allowing for more personalized and targeted marketing efforts. This will improve customer retention and loyalty, leading to increased revenue and profitability over time. Overall, the proposed system will have a significant positive impact on the company's operations and bottom line.

Database Description:

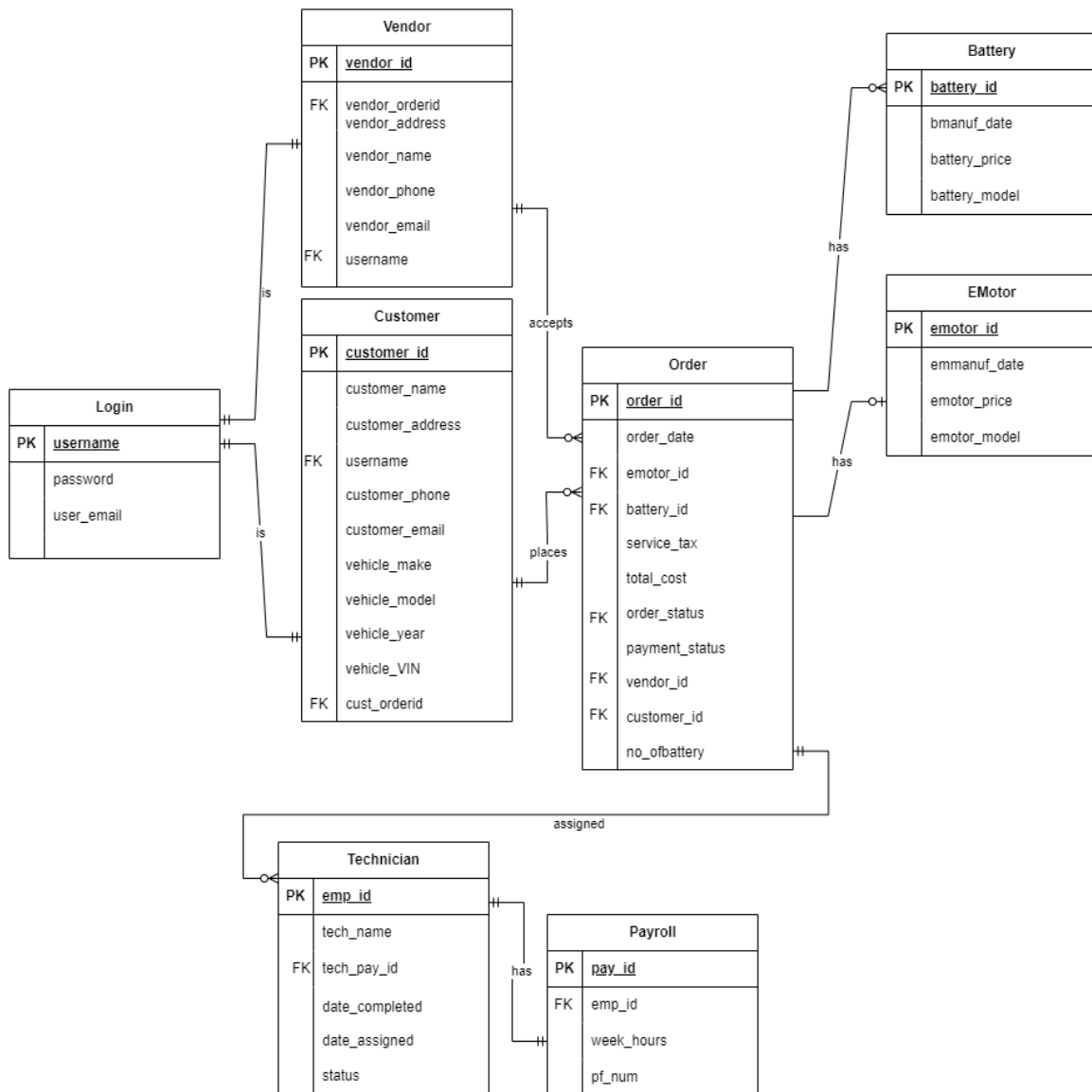
The proposed electric vehicle conversion database management system is designed to solve the challenges faced in the process of converting conventional vehicles to electric vehicles. The system consists of several tables, each serving a specific purpose.

The Customers table will store and manage customer information, including contact details, vehicle specifications, and project requirements. The Vendors table will store and manage vendor information, including contact details, parts and services offered, and pricing. The Orders table will store and manage order information, including customer and vendor details, part and service specifications, project timelines, and delivery status. The Battery and Emotor tables will store and manage information on the components required for the electric vehicle conversion process. The Payroll table will store and manage information on vendor payments and employee salaries. Finally, the Login table will store and manage user login information for system security purposes.

The system will enable the project manager to track the progress of each conversion project, including the status of parts and services, the timeline for completion, and any issues or delays that arise during the process. This will help the project manager to identify potential problems early and take corrective actions to ensure that the project is completed on time and within budget.

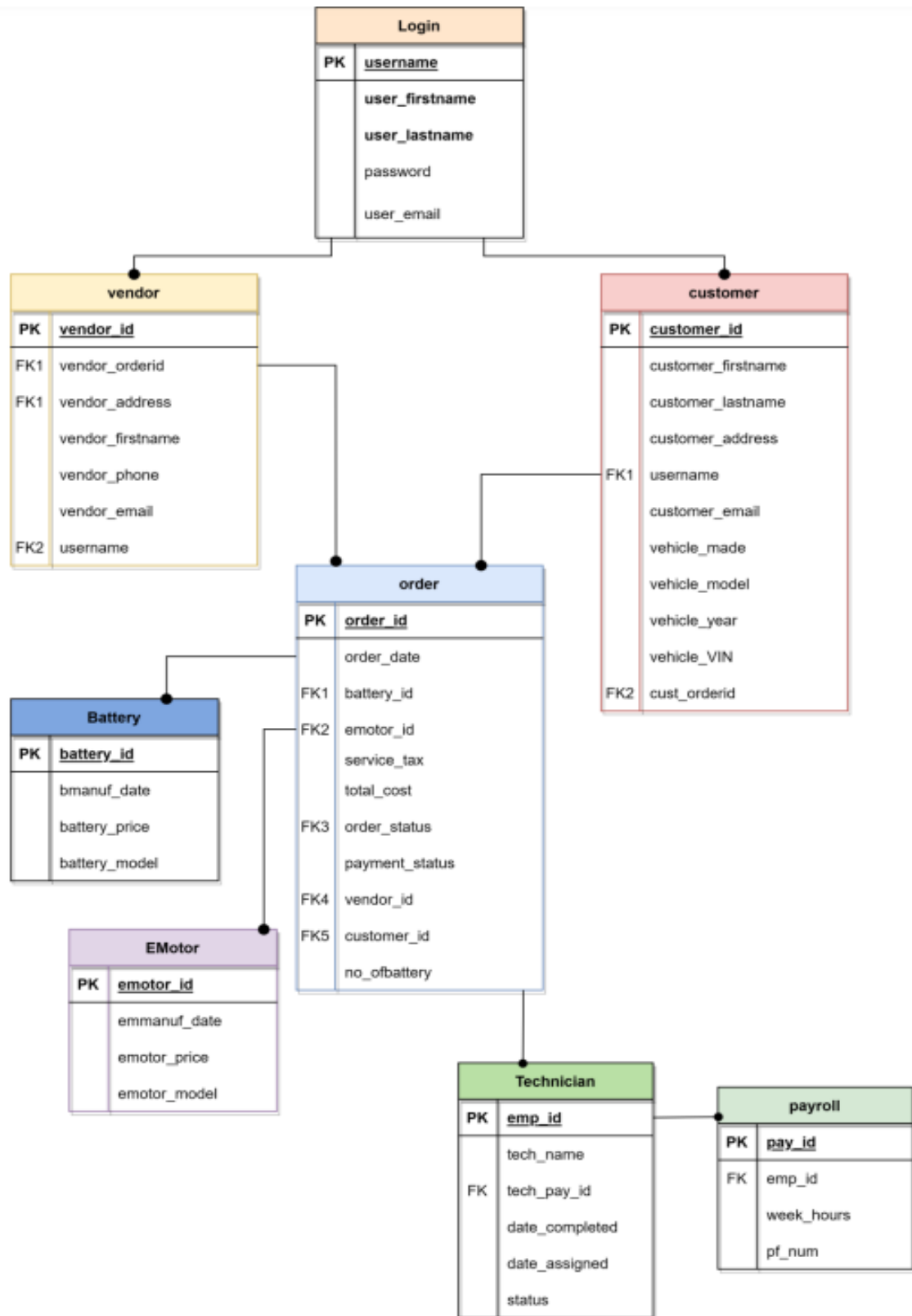
Overall, the proposed electric vehicle conversion database management system will provide a comprehensive solution to the challenges faced in the conversion process of conventional vehicles to electric vehicles. The system will improve efficiency, reduce costs, and increase customer satisfaction, ultimately leading to increased revenue and profitability.

ER Diagram:

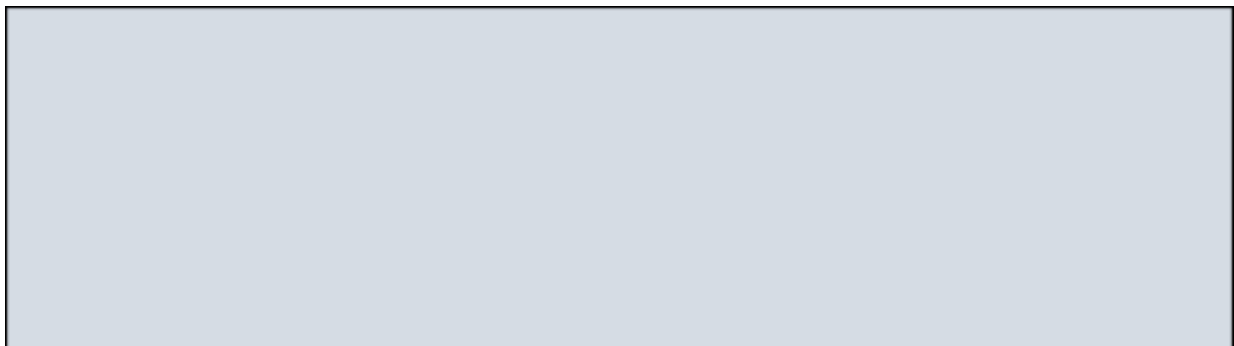


ER Data Requirements:

Entity	Description	Attributes	Relations	Entity	Rule
Login	pk on name of the user	username	vendor login	login	log
	password of the user	password	customer login	vendor	logged in by
	mail of the user	user_email		customer	
Vendor	Name of the vendor	vendor_name	vendor login	vendor	vendor log in
	email of the vendor	vendor_email	vendor order	login	vendor accepts order
	phone no. of the vendor	vendor_phone		order	
	address of the vendor	vendor_address			
	primary key on vendor_id	vendor_id	customer login	customer	customer log in
Customer	primary key on customer id	customer_id	customer order	login	customer places order
	name of the customer	customer_name		order	
	address of the customer	customer_address			
	name of the user	username			
	phone no. of the customer	customer_phone			
	email of the customer	customer_email			
	vehicle made	vehicle_make			
	model of the vehicle	vehicle_model			
	Vehicle Identification number	vehicle_VIN			
	fk on customer order id	cust_orderid			
Order	pk on order id	order_id	vendor order	order	Vendor accepts order
	date of the order	order_date	customer order	vendor	customer places order
	id of the emotor	emotot_id	battery order	customer	order includes battery status
	id of the battery	battery_id	EMotor order	battery	order includes EMotor status
	taxes on the service	service_tax	Technician order	EMotor	order assigned to technician
	cost of the total order	total_cost		Technician	
	status of the order	order_status			
	status of payment	payment_status			
	id of the vendor	vendor_id			
	id of the customer	customer_id			
	no. of battery	no_ofbattery			
Battery	pk on battery id	battery_id	Battery order	Battery	order includes battery status
	manufacture date of battery	bmanuf_date		order	
	price of battery	battery_price			
	model of battery	battery_model			
EMotor	pk on emotor_id	emotor_id	EMotor order	EMotor	order includes EMotor status
	manufacture date of emotor	emmanuf_date		order	
	price of the emotor	emotor_price			
	model of the motor	emotor_model			
Technician	pk on employee id	emp_id	Technician order	Technician	order assigned to technician
	name of the technician	tech_name	Technician payroll	order	Technician payroll
	technician payment id	tech_pay_id		payroll	
	date completed	date_completed			
	date assigned	date_assigned			
	status	status			
Payroll	pk on pay id	pay_id	Technician Payroll	payroll	Technician payroll
	employee id	emp_id		Technician	
	no. of week hours worked	week_hours			
	nf number	nf_num			



Basic UI Flow Design:



ELECTRIC VEHICLE
CONVERSION
SYSTEM



enter username..

enter password..

Sign In

Customers

Address

123 Main St.

Username

jsmith123

Unique ID

1

customer_email

jsmith123@email.com

Order ID

1

Name

John Smith

Contact Information

555-1234

Vehicle Model

Battery

search battery

ABC - 100

100

ABC - 100

150

enter order ID..

View Order Details

View Order Status

View Order Cost

Order Status



processing

Total order Cost



1850
