

MECH BUDDIES

ONLINE ROADSIDE ASSISTANCE WEBSITE

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PROBLEM STATEMENT



Roadside assistance is a service provided to drivers who encounter problems while driving such as a flat tire, dead battery, or vehicle breakdown. The objective of this project is to develop a software application to automate the process of providing roadside assistance to drivers. The goal is to make the service faster, more efficient, and more accessible to drivers in need of assistance.

The development of a software application for roadside assistance will greatly improve the speed, efficiency, and accessibility of the service. It will provide drivers with an easy-to-use interface to request assistance and receive real-time updates on the status of their request. The back-end system will streamline the process of matching drivers with assistance providers, managing requests, and processing payments. This project will be an important step towards modernizing the roadside assistance industry and making it more accessible to drivers in need of assistance.

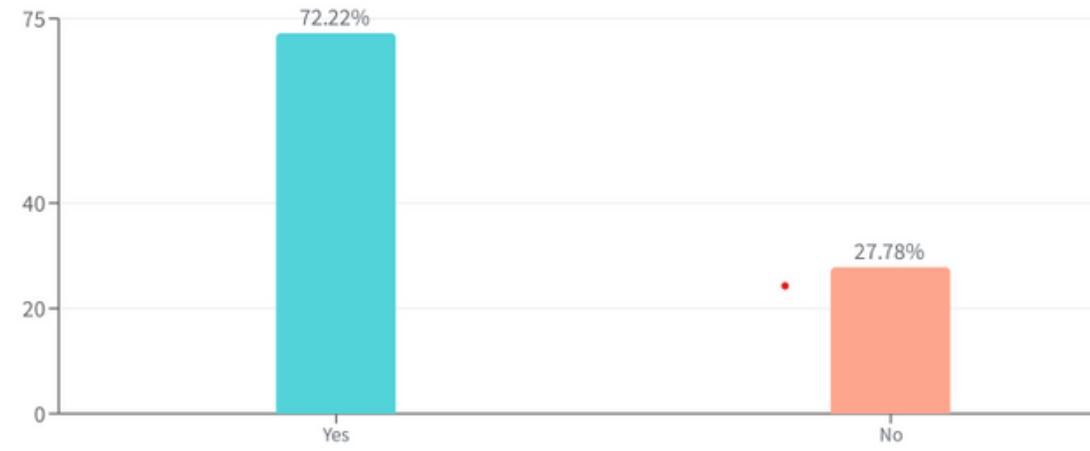
REQUIREMENT GATHERING



After receiving the problem from the stakeholder, We floated our services survey google form to various stakeholders and found the following results :

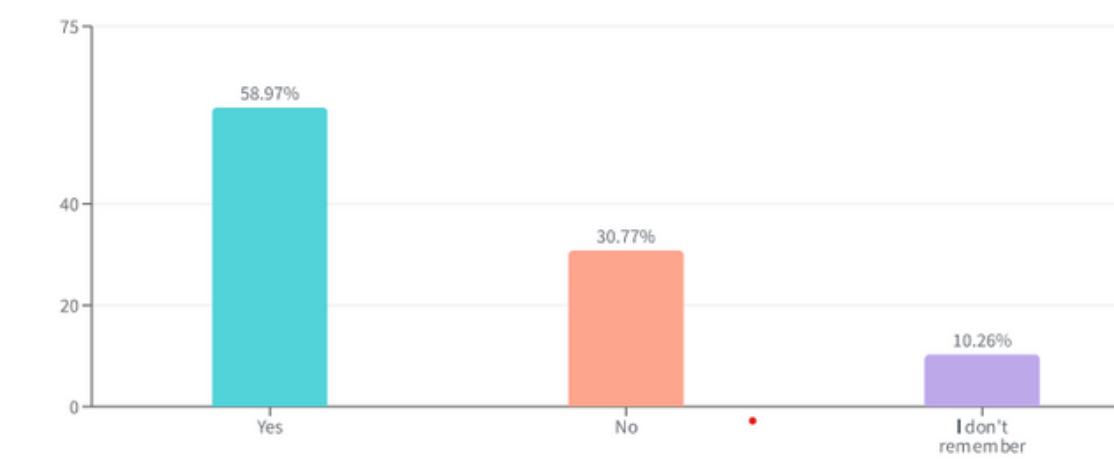
Have you ever faced vehicle breakdown during your journey?
i.e. flat tyre, emergency fuel delivery etc.

Answered: 54 Skipped: 0

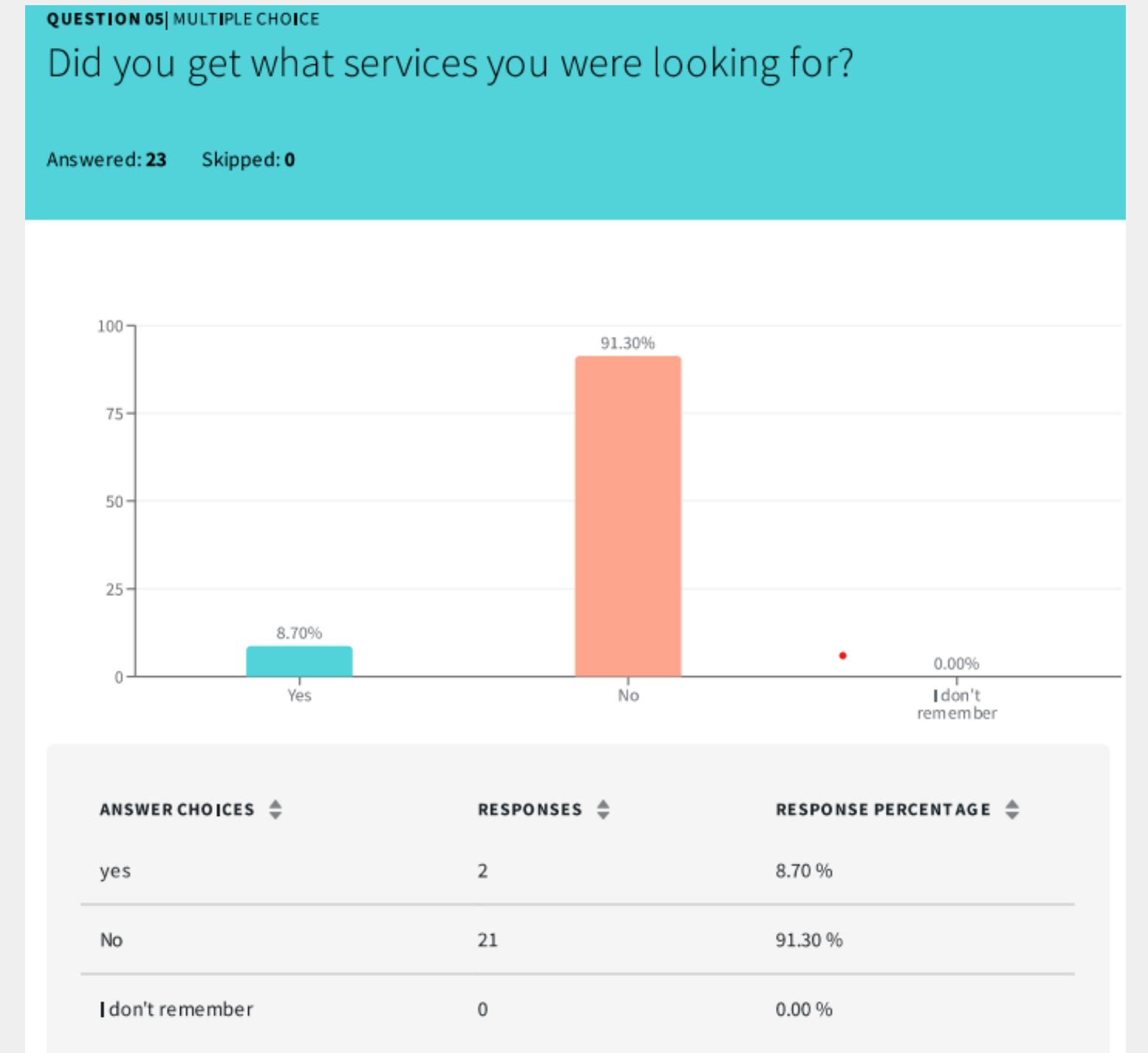
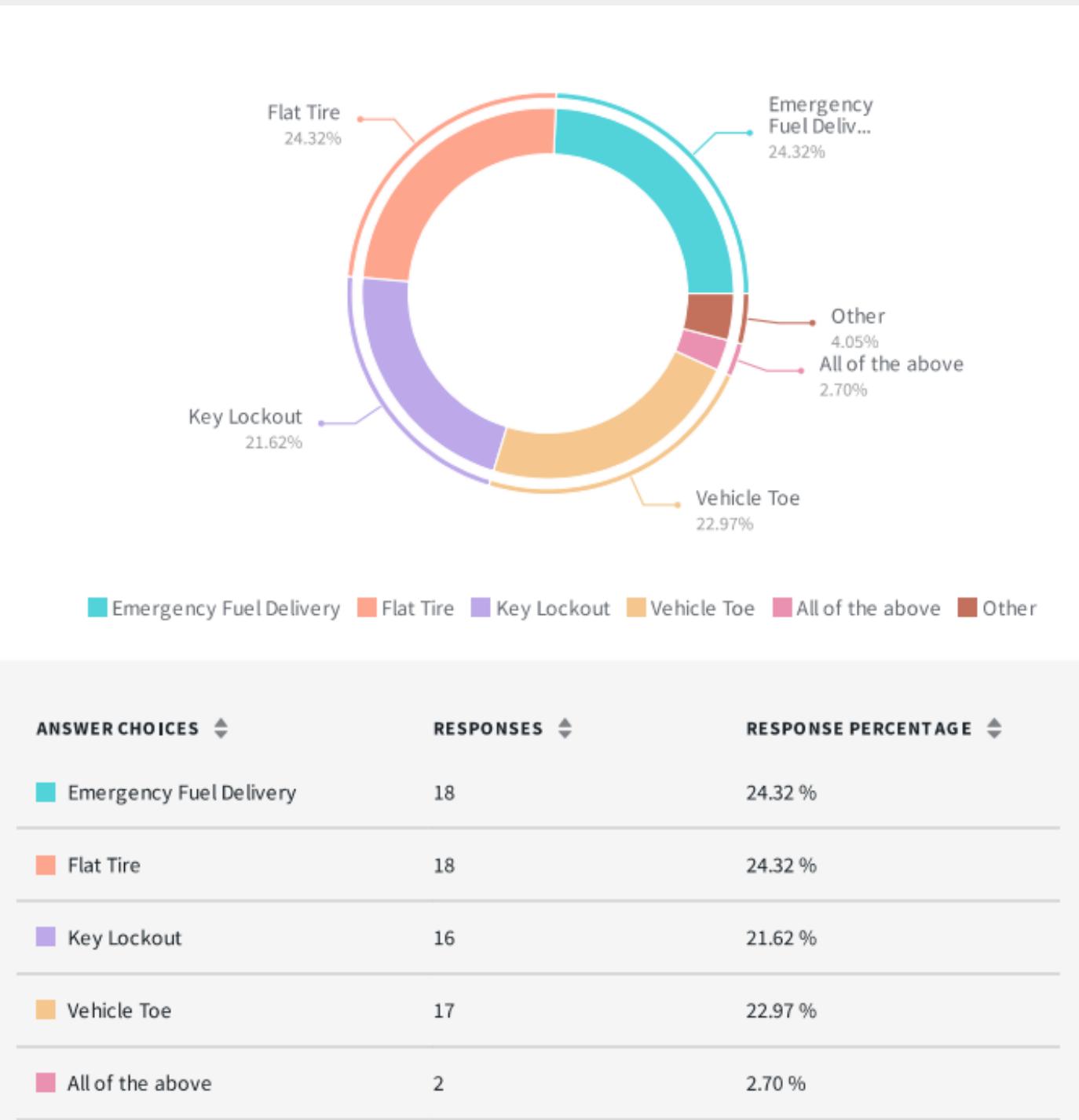


Have you ever used roadside assistance services?

Answered: 39 Skipped: 0



REQUIREMENT GATHERING

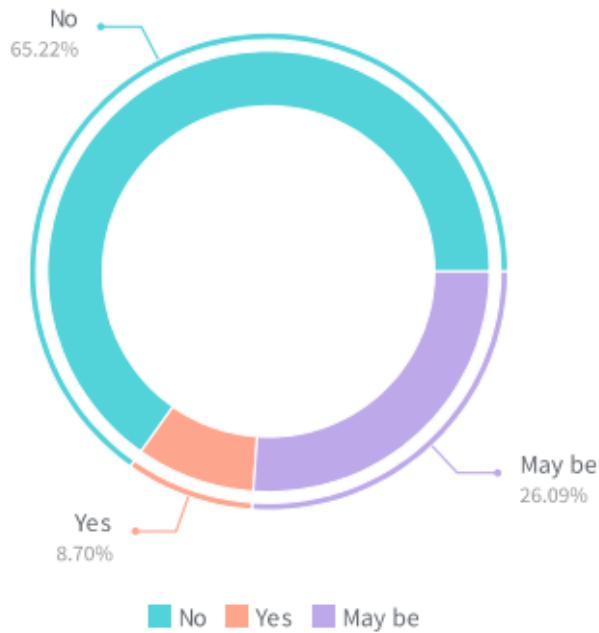


REQUIREMENT GATHERING



Did you find these services helpful and easy to access?

Answered: 23 Skipped: 0

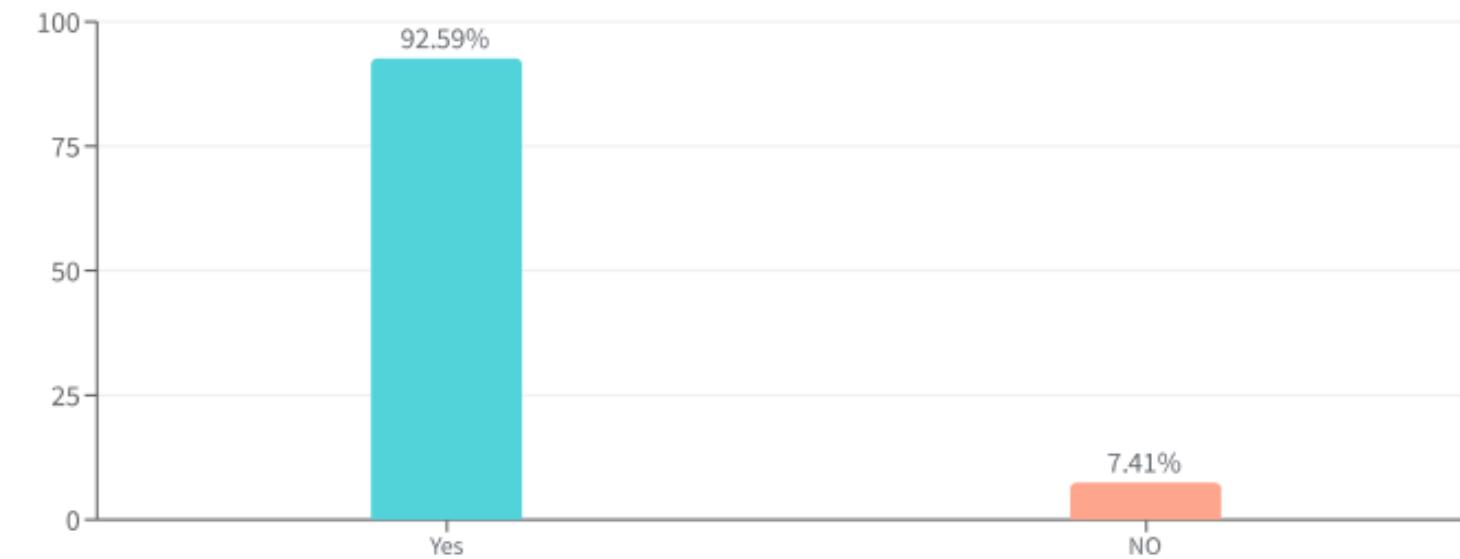


QUESTION 09 | MULTIPLE CHOICE

Do you want an integrated platform with roadside assistance?

i.e. website or application etc.

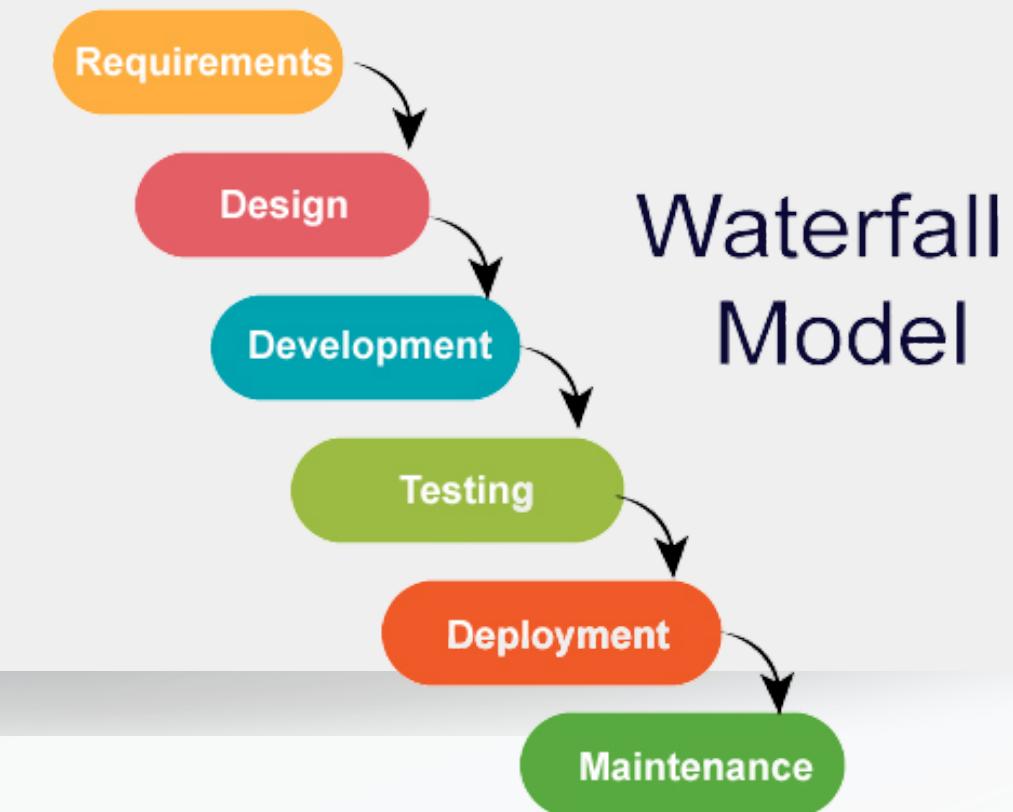
Answered: 54 Skipped: 0



PROCESS MODEL



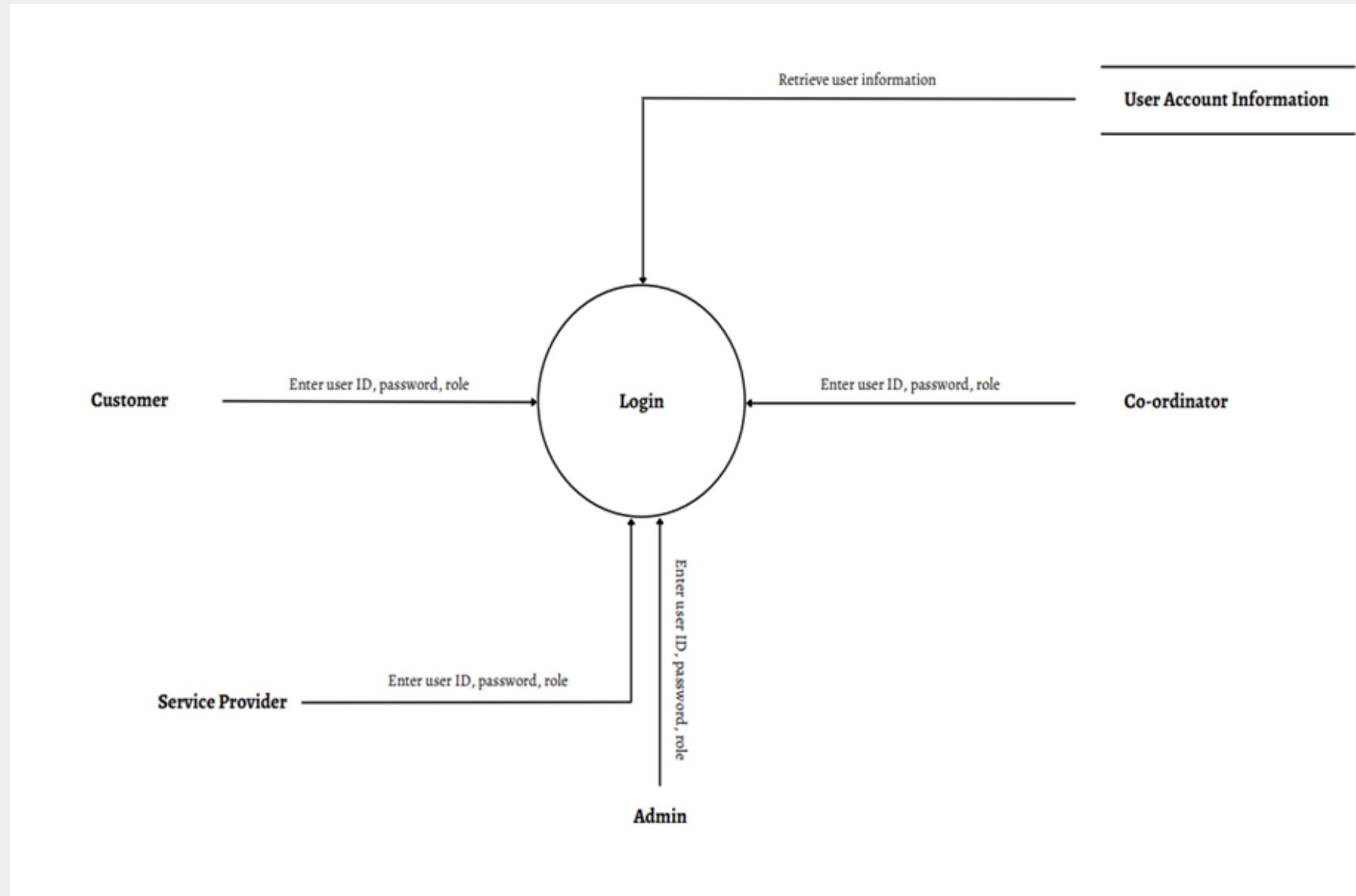
- The Waterfall Model is a linear and sequential process model that we have decided to follow for the Roadside assistance(Mech buddies) project.
- This approach consists of a series of sequential phases, where each phase must be completed before moving on to the next phase.
- The Waterfall Model comprises the following sequential phases:
 - Requirements
 - Analysis Planning
 - Modeling Coding
 - Testing
 - Deployment



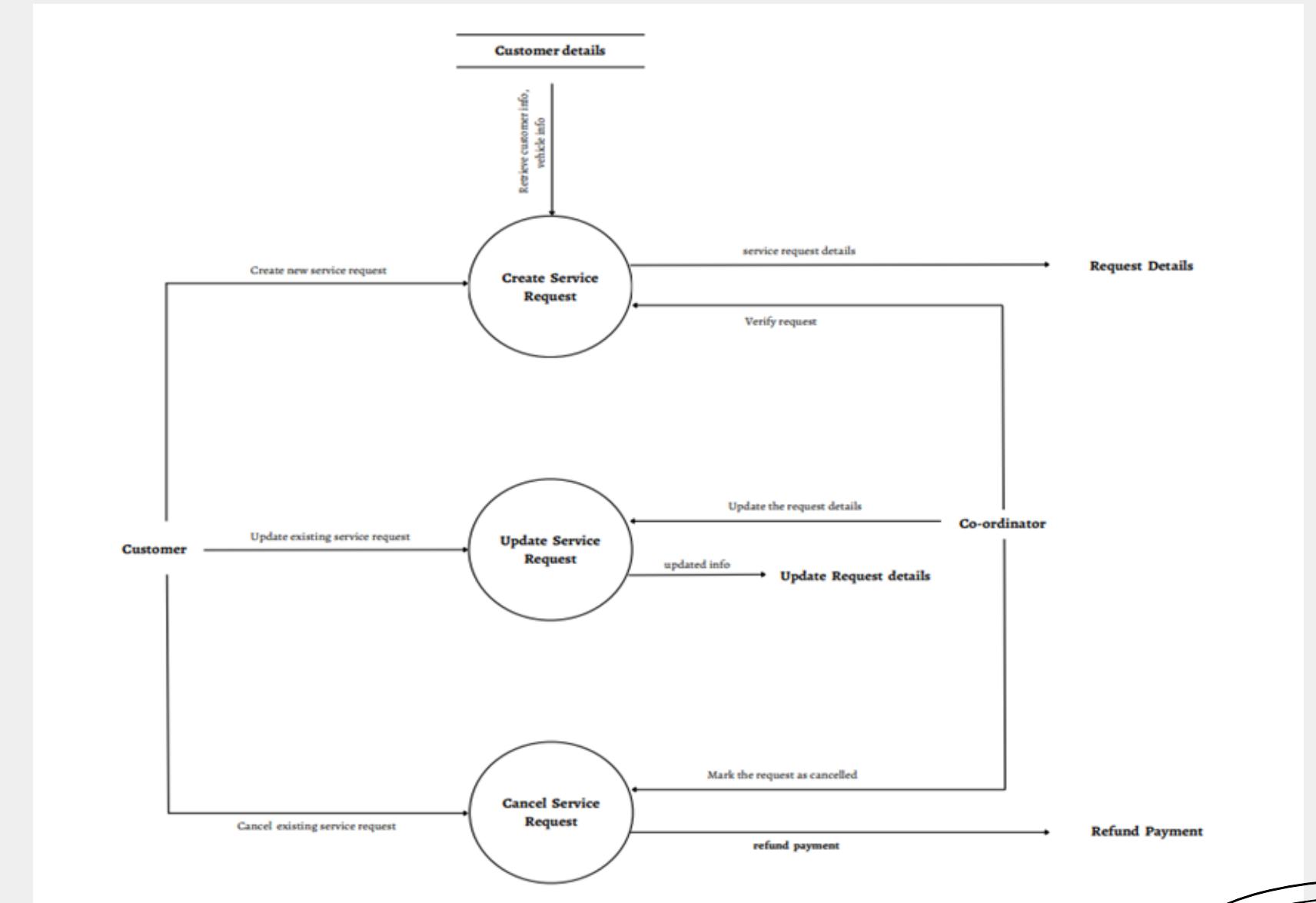
DATA FLOW DIAGRAM



LEVEL 2: LOGIN MODULE



LEVEL 2: SERVICE REQUEST MANAGEMENT



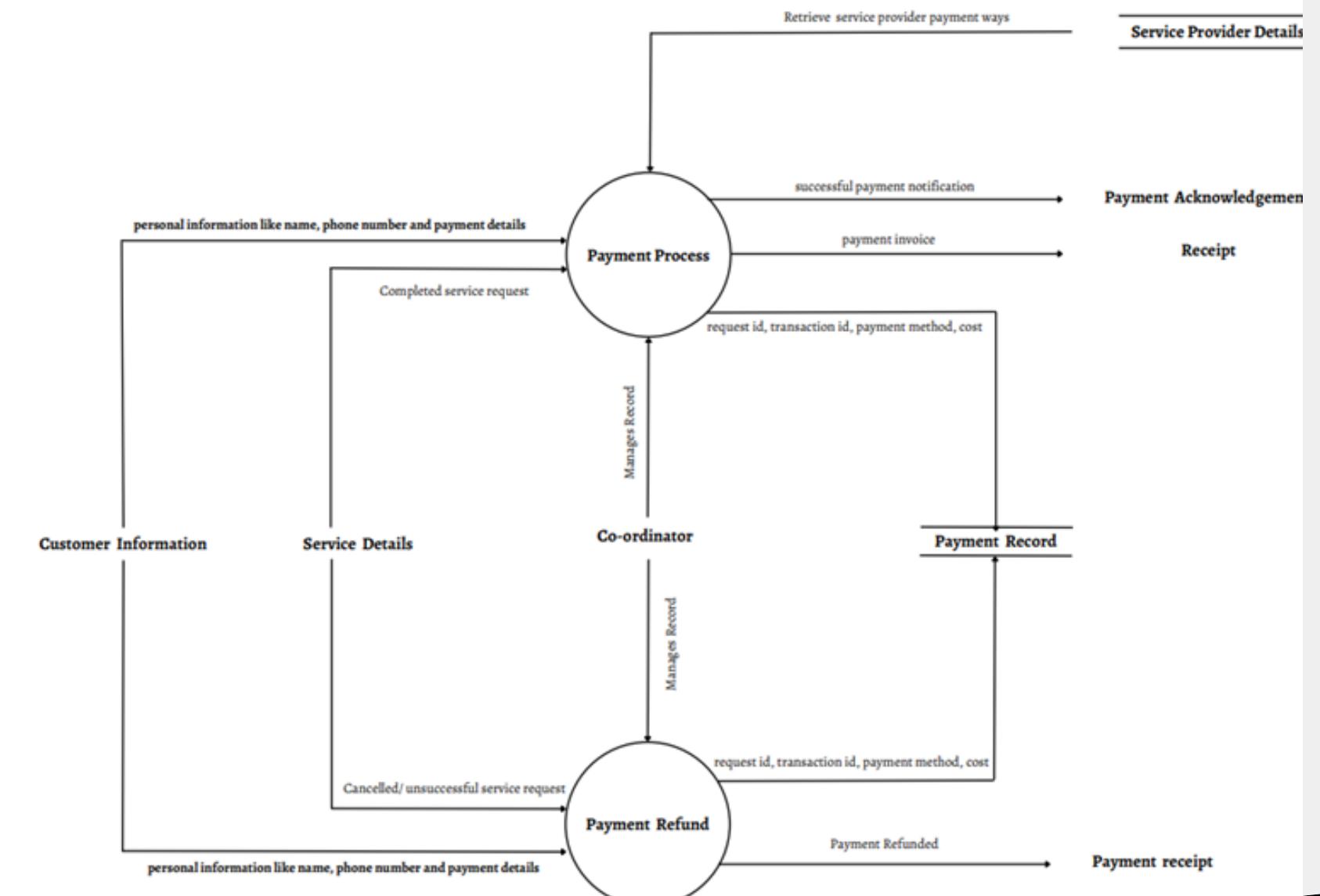
DATA FLOW DIAGRAM



LEVEL 2: SERVICE PROVIDER MODULE



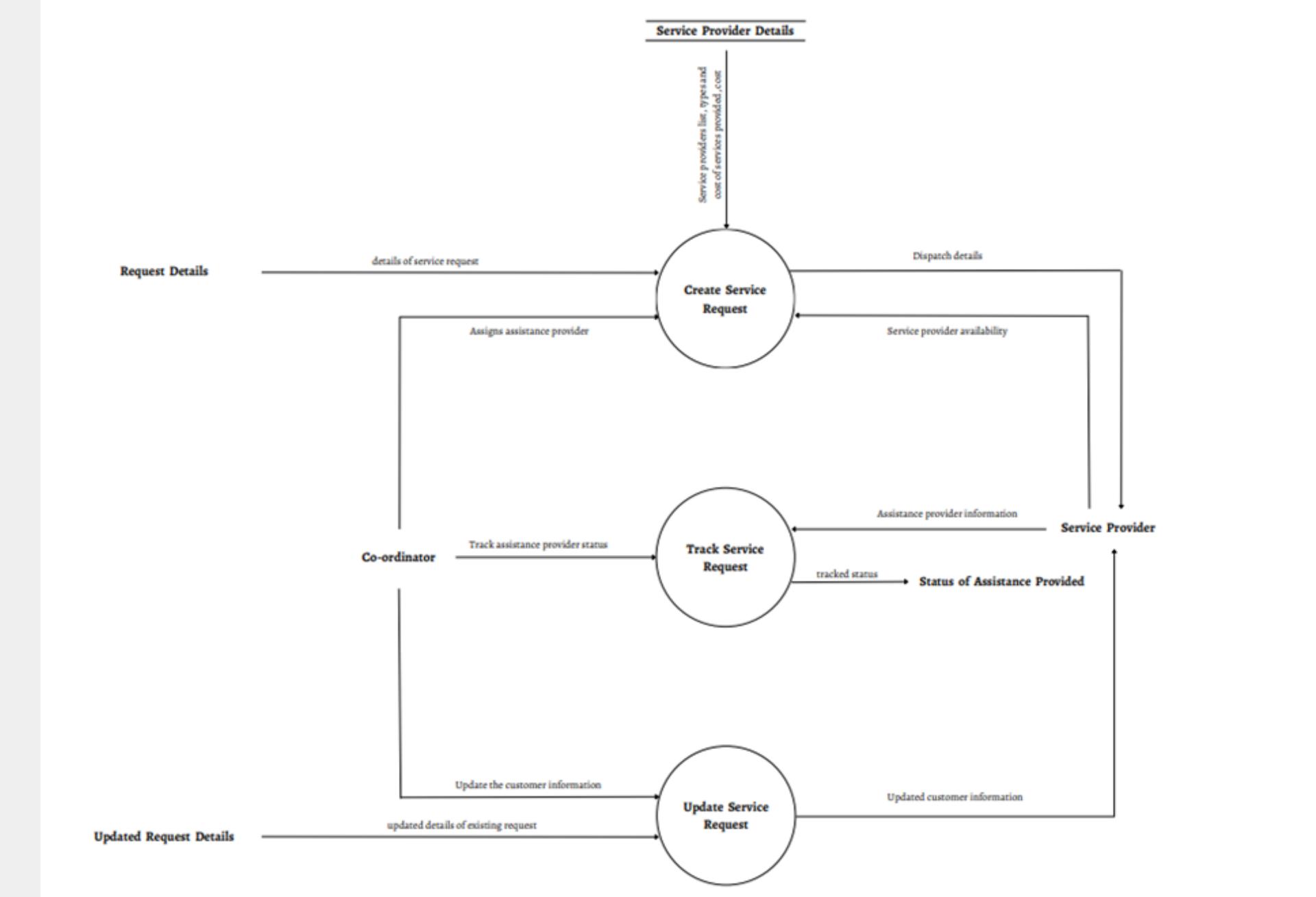
LEVEL 2: PAYMENT MANAGEMENT MODULE



DATA FLOW DIAGRAM



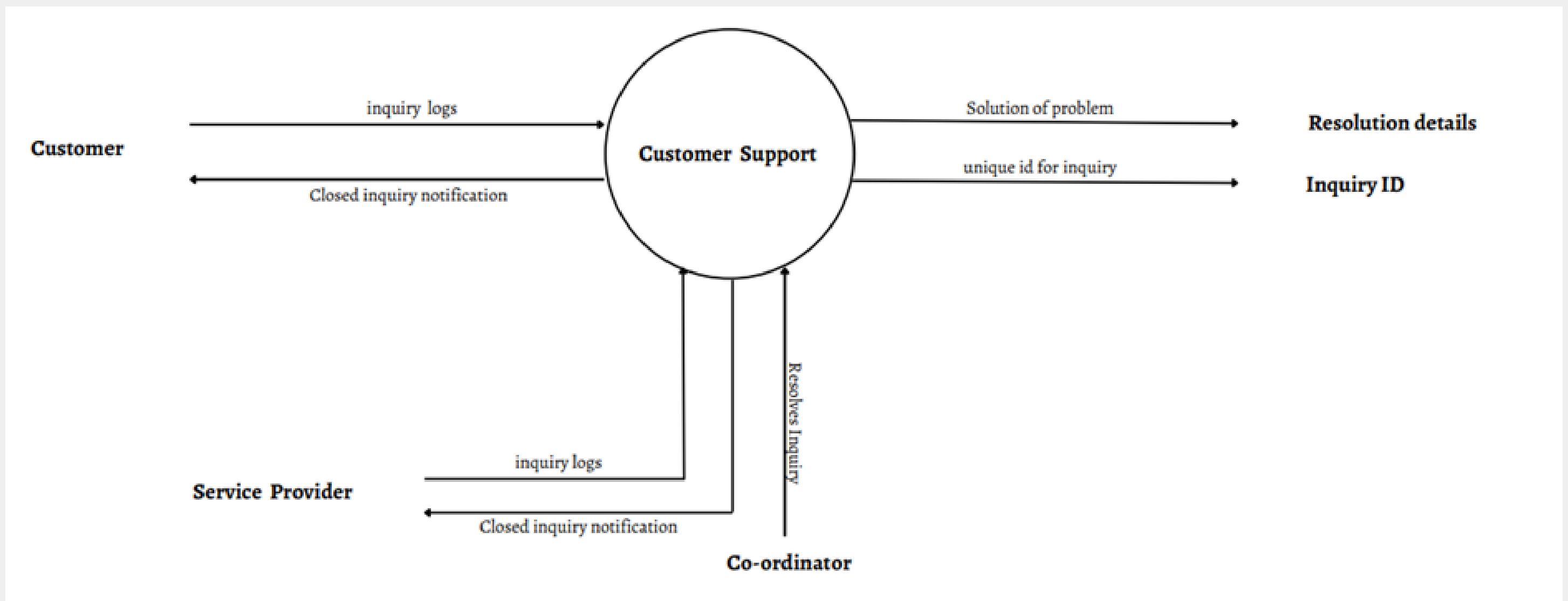
LEVEL 2: DISPATCH MANAGEMENT MODULE



DATA FLOW DIAGRAM



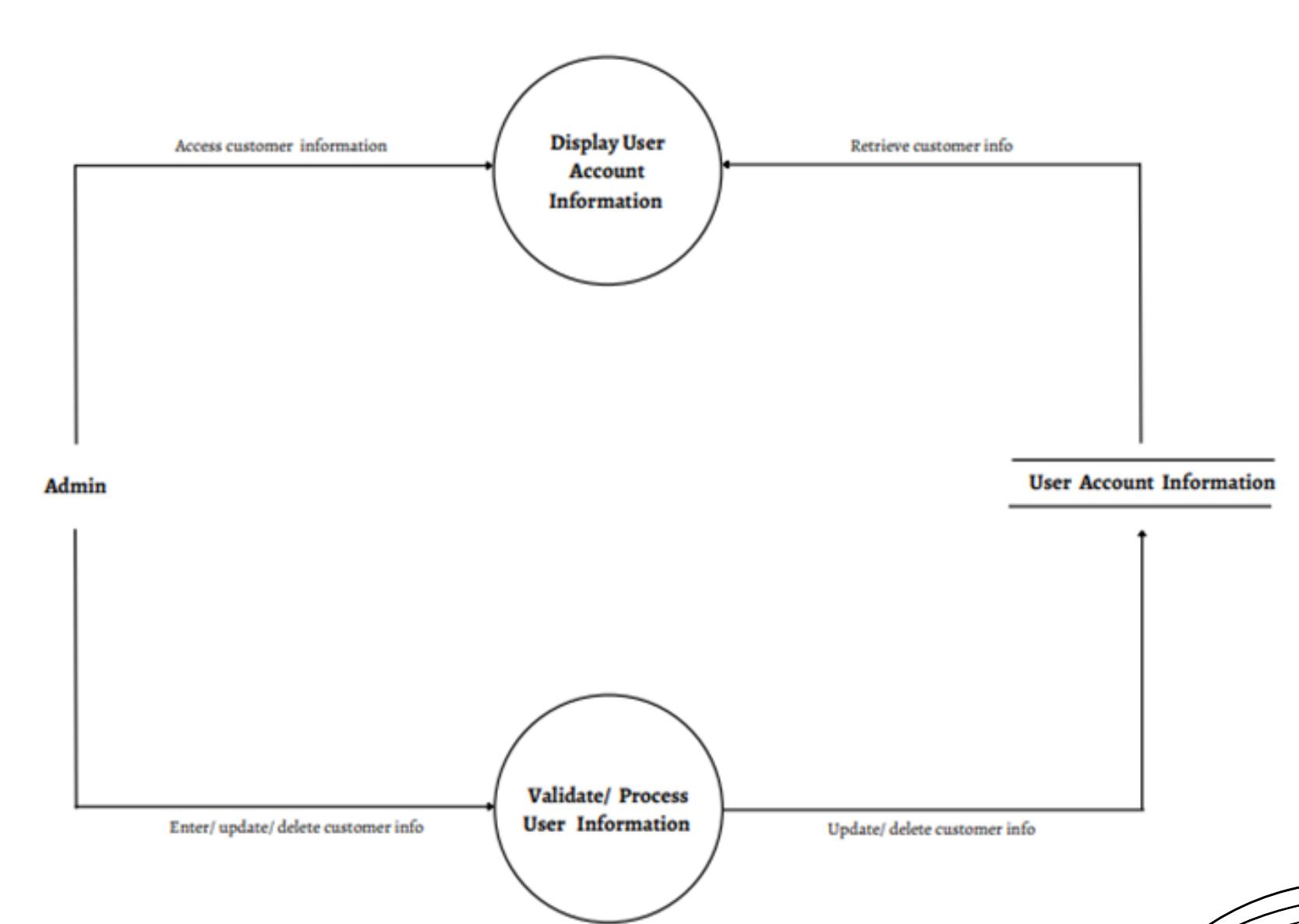
LEVEL 2: CUSTOMER SUPPORT MODULE



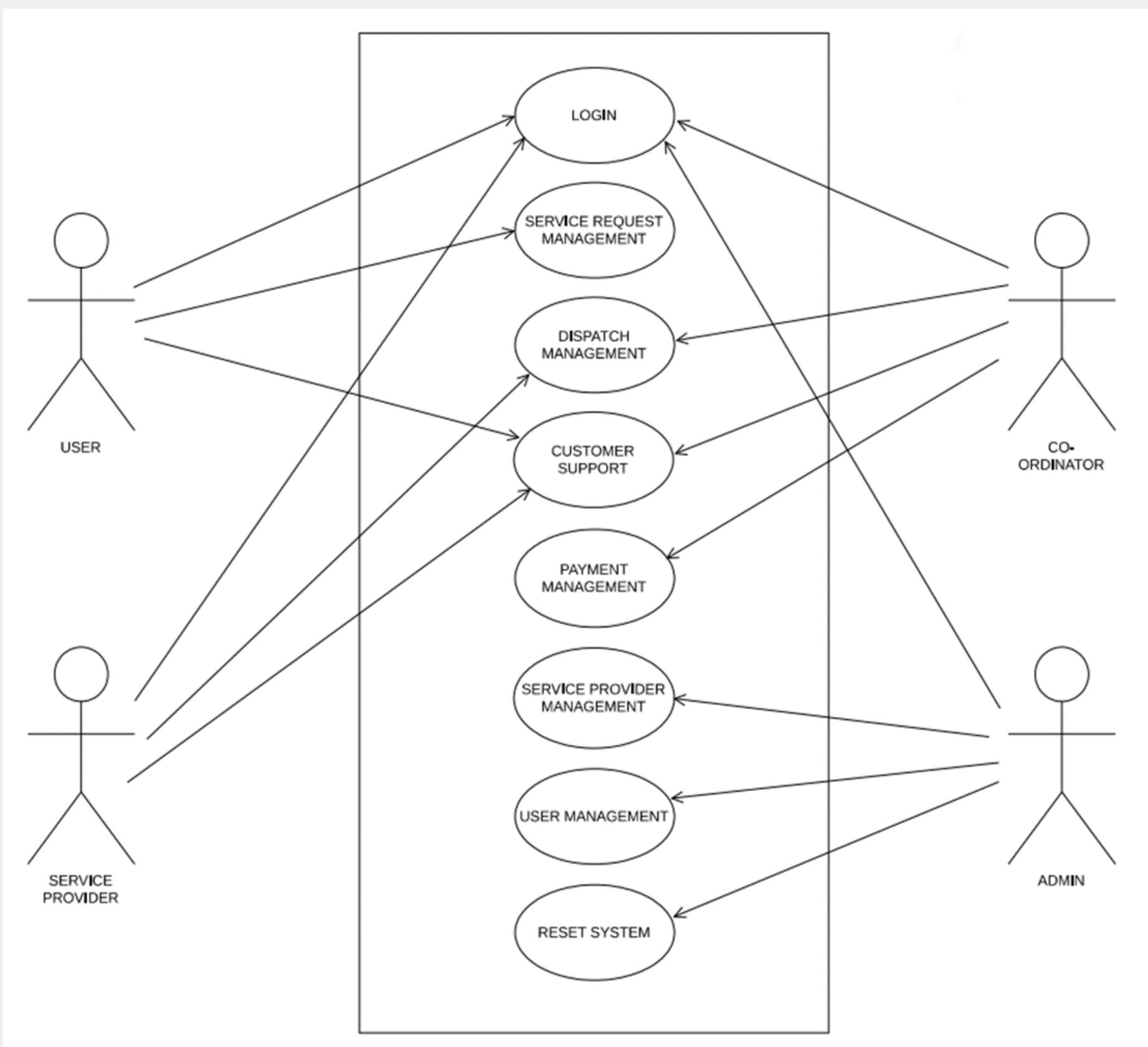
DATA FLOW DIAGRAM



LEVEL 2 : USER MANAGEMENT MODULE



USE CASE DIAGRAM



DATA DICTIONARY



1. Customer Table:-

Attributes Name	Data Type	Size	Description	Example
customer_id (Primary Key)	varchar	50	Unique identifier for each customer	MOHAN2345
first_name	varchar	50	First name of the customer	MOHAN
last_name	varchar	50	Last name of the customer	CHAUHAN
password	varchar	50	Encrypted password of customer	MOH***1223
email	varchar	255	Email address of the customer	abc***@gmail.com
phone	varchar	20	Phone number of the customer	*****98
address	varchar	255	Home address of the customer	Delhi

2. Vehicle Table:-

Attributes Name	Data Type	Size	Description	Example
vehicle_id (Primary Key)	varchar	50	Unique identifier for each vehicle	Ford2356
customer_id (Foreign Key)	varchar	50	Foreign key to link the vehicle to the table "Customer"	MOHAN2345
brand	varchar	50	Brand of the vehicle	Ford
color	varchar	50	Color of the vehicle	Blue
model	varchar	50	Model of the vehicle	xyz
year	int	4	Year the vehicle was manufactured	2019
license_plate	varchar	20	License plate number of the vehicle	DL***2356

DATA DICTIONARY



3. Services Table :-

Attributes Name	Data Type	Size	Description	Example
service_id (Primary Key)	varchar	50	Unique identifier for each service	FD4536
service_name	varchar	50	Name of the service	Fuel Delivery
description	varchar	255	Description of the service	xxxEmergency Fuel Delivery
price	decimal	10,2	Price of the service	500.00

4. Service Request Table :-

Attributes Name	Data Type	Size	Description	Example
request_id (Primary Key)	varchar	50	Unique identifier for each service request	MFD****78
customer_id (Foreign Key)	varchar	50	Foreign key to link the service request to the table "Customer"	MOHAN2345
vehicle_id (Foreign Key)	varchar	50	Foreign key to link the service request to the table "Vehicle"	Ford2356
service_id (Foreign Key)	varchar	50	Foreign key to link the service request to the table "Service"	FD4536
service_date	datetime	-	Date and time of the requested service	2022-03-11 07:04:34
status	varchar	20	Status of the service request (e.g., pending, in progress, completed)	IN PROGRESS

DATA DICTIONARY



Attributes Name	Data Type	Size	Description	Example
location	varchar	255	Location of the service request	MALKA GANJ, DELHI-110007
latitude	decimal	10,6	Latitude of the service request location	28.627171
longitude	decimal	10,6	Longitude of the service request location	77.086689
requested_at	timestamp		Timestamp for when the service request was made	2022-03-11 07:04:34
assigned_to	varchar	50	Foreign key to the service provider table	HP***56
started_at	timestamp		Timestamp for when the service was started	2022-03-11 07:54:34
completed_at	timestamp		Timestamp for when the service was completed	2022-03-11 09:30:34
payment_id	varchar	50	Foreign key to the payment table	FD***563

5. Service Provider Table :-

Attributes Name	Data Type	Size	Description	Example
provider_id (Primary Key)	varchar	50	Unique identifier for each service provider	HP***56
company_name	varchar	50	Name of the service provider company	HINDUSTAN_PETROLEUM
contact_name	varchar	50	Name of the contact person at the service provider company	RAMESH_VERMA
password	varchar	50	Encrypted password of Service Provider	HP*****3657
email	varchar	255	Email address of the contact person	hp***@gmail.com
phone	varchar	20	Phone number of the contact person	*****25

DATA DICTIONARY



6. Payment Table :-

Attributes Name	Data Type	Size	Description	Example
payment_id (Primary Key)	varchar	50	Unique identifier for each payment	FD***563
request_id (Foreign Key)	varchar	50	Foreign key to link the payment to the table "Service Request"	MFD***78
customer_id (Foreign Key)	varchar	50	Foreign key to link the payment to the table "Customer"	MOHAN2345
amount	decimal	10,2	Amount of the payment	500.00
payment_date	datetime	-	Date and time of the payment	2022-03-11 09:24:56
payment_method	varchar	20	Payment method used (e.g., credit card, PayPal)	Paytm

7. Admins Table:-

Attributes Name	Data Type	Size	Description	Example
user_id (Primary Key)	varchar	50	Unique identifier for the admin	RAM7646
username	varchar	50	Unique username of the admin	RAM_SHARMA547
email	varchar	100	Email of the admin	ram74**@gmail.com
password	varchar	100	Encrypted Password of the admin	RAM****4567

DATA DICTIONARY



6. Payment Table :-

Attributes Name	Data Type	Size	Description	Example
payment_id (Primary Key)	varchar	50	Unique identifier for each payment	FD***563
request_id (Foreign Key)	varchar	50	Foreign key to link the payment to the table "Service Request"	MFD***78
customer_id (Foreign Key)	varchar	50	Foreign key to link the payment to the table "Customer"	MOHAN2345
amount	decimal	10,2	Amount of the payment	500.00
payment_date	datetime	-	Date and time of the payment	2022-03-11 09:24:56
payment_method	varchar	20	Payment method used (e.g., credit card, PayPal)	Paytm

7. Admins Table:-

Attributes Name	Data Type	Size	Description	Example
user_id (Primary Key)	varchar	50	Unique identifier for the admin	RAM7646
username	varchar	50	Unique username of the admin	RAM_SHARMA547
email	varchar	100	Email of the admin	ram74**@gmail.com
password	varchar	100	Encrypted Password of the admin	RAM****4567

APPENDIX



MECH-BUDDIES About Services Customer Support FAQ Contact us

Sign up Login

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HOME PAGE

SERVICES

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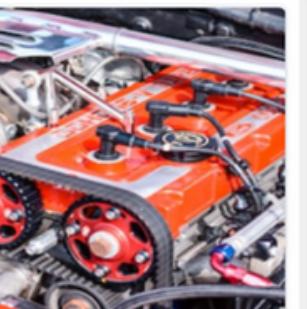
Sign up Login

Our Services

Fuel Delivery
Run out of fuel? No problem! We provide fast and reliable emergency fuel delivery services to get you back on the road in no time.



Engine Diagnostic
Is your check engine light on? Our experts can quickly diagnose the problem and provide you with the necessary repairs to keep your engine running smoothly.



Wheel Alignment
Is your car pulling to one side or shaking? We can help! Our experts can quickly identify the problem and get your wheels aligned in no time.



Mechanical Fault
Got a mechanical fault in your car? Our team of experts is always on standby to provide you with the necessary repairs and maintenance to get



APPENDIX



ABOUT US PAGE

The screenshot shows the homepage of the Mech-Buddies website. At the top, there is a navigation bar with links for "MECH-BUDDIES", "About", "Services", "Customer Support", "FAQ", and "Contact us". To the right of the navigation bar are "Sign up" and "Login" buttons. Below the navigation bar is a large banner image of a city street with buildings, traffic lights, and a sign that reads "COLFAX CREATES". Overlaid on this image is the text "Your Necessity is our Priority". Below the banner, the word "About us" is prominently displayed. A text box contains the following message: "We understand that being stranded on the side of the road can be a stressful experience, which is why we have created a platform that connects users with reliable service providers quickly and efficiently. Our goal is to provide you with the peace of mind that comes with knowing that help is always just a few clicks away."

MECH-BUDDIES About Services Customer Support FAQ Contact us

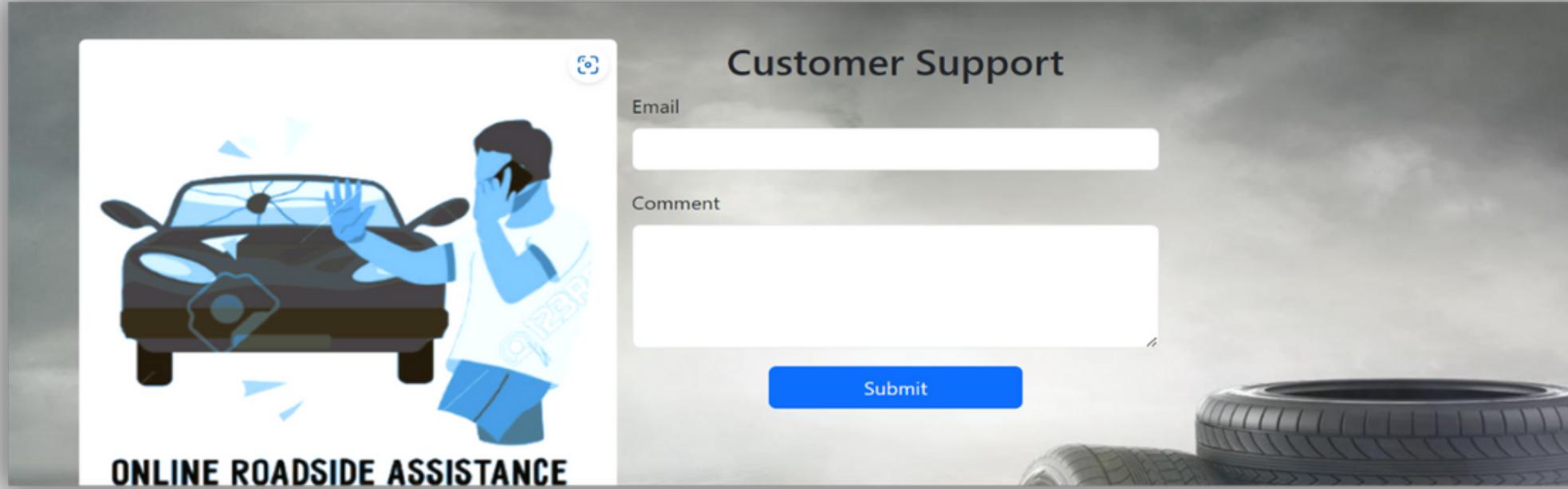
Sign up Login

Your Necessity is our Priority

About us

We understand that being stranded on the side of the road can be a stressful experience, which is why we have created a platform that connects users with reliable service providers quickly and efficiently. Our goal is to provide you with the peace of mind that comes with knowing that help is always just a few clicks away.

APPENDIX



CUSTOMER SUPPORT

FAQ

MECH-BUDDIES [About](#) [Services](#) [Customer Support](#) [FAQ](#) [Contact us](#) [Sign up](#) [Login](#)

ⓘ Frequently Asked Questions

What kind of roadside assistance services do you provide?

Do you provide services 24/7?

How long will it take for your team to arrive?

Do you provide services for all types of vehicles?

How much do your services cost?

APPENDIX



CONTACT US

MECH-BUDDIES [About](#) [Services](#) [Customer Support](#) [FAQ](#) [Contact us](#) [Sign up](#) [Login](#)

Our Phone Number:

- Office Number: 250-374-6281
- Toll Free: 1-877-374-6281
- Mail: Mechbuddies@mech.com
- Fax Number: 250-374-2654

Also connect with us

- - -

Our Address:

- 3568 Horizon Circle Tacoma, WA 98444
- 3109 Pickens Way Longview, TX 75601

Customer Review

Email

Comment

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APPENDIX



SIGNUP

The screenshot shows the "CREATE ACCOUNT" form. On the left, there is a graphic of a car with a broken windshield and a person looking distressed. The form fields include:

- Name:
- Email:
- Password:
- Address: 1234 Main St
- City: Choose...
- State:
- Zip:

A blue "Sign up" button is at the bottom.

LOGIN

The screenshot shows the "LOGIN" form. On the left, there is a graphic of a car with a broken windshield and a person looking distressed. The form fields include:

- Name:
- Email: suhanipamposhbhat@gmail.com
- Password:

Links for "Forgot Password?" and "Sign in" are present. A note at the bottom says "New Member? [sign up](#)".

APPENDIX



AFTER LOGIN PAGE

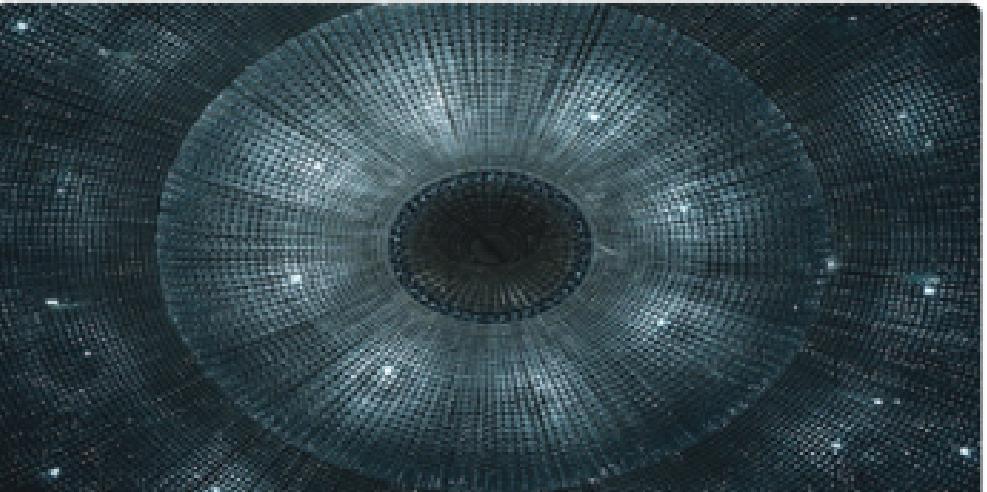
MECH-BUDDIES

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[Sign up](#)

[Login](#)

Services



Fuel Delivery

Run out of fuel? No problem! We provide fast and reliable emergency fuel delivery services to get you back on the road in no time.

[Book now](#)



Engine Diagnostic

Is your check engine light on? Our experts can quickly diagnose the problem and provide you with the necessary repairs to keep your engine running smoothly.

[Book now](#)



Wheel Alignment

Is your car pulling to one side or shaking? We can help! Our experts can quickly identify the problem and get your wheels aligned in no time.

[Book now](#)

APPENDIX



PAYMENT GATEWAY

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Step 1 - My Awesome Cart Express Checkout - Review Your Cart Items

Your Cart Total Is **Rs. .** Enter your details below & place your order. Thanks for using My Awesome Cart!

Step 2 - Enter Address & Other Details:

Name

Email

Address
 1234 Main St

Address line 2
 Apartment, studio, or floor

City



THANK YOU

