

Detailed Software Technical Design (DSTD)

For

V2V Couriers

By

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(We have completed this project by using two different back end languages to show the differences)

1. Front end – Bootstrap, HTML

Back end – PHP, MySQL

2. Front end – Bootstrap, HTML, AngularJs

Back end – spring boot, MySQL

Document Revisions

Date	Version	Description	Author	Reviewer	Approver

Information Handling

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1 Introduction

1.1 Purpose

This system is about automation of courier management system by building an application program. The application totally reduces the manual work for managing the bill, package delivery, payment, storing employee details. This concept leads to the less involvement of both time and manpower. The easy and secure accessing of application enables the multiple user access simultaneously. Thus the overall aim is to increase the efficiency level of the courier service and to achieve customer satisfaction.

1.2 Scope

This system satisfies NFR metrics like security, reliability, performance and accuracy. The system also provides timely delivery of the couriers with minimum charges. The use of this system will enhance the services and processing. This application includes tracking option where the consumer can get their own details. It also helps the system manager or admin to answer the queries regarding the package deliveries.

1.3 Definitions, Acronyms and Abbreviations

Acronyms:

COD-Cash on Delivery
ID-Identity Document

Abbreviations:

ETA-Estimated Time Arrival
POD-Place of Delivery
VIP (Delivery)-Very Important Parcel

1.4 References

HTML5-W3Schools

CSS3-FreeCodeCamp

Bootstrap-W3Schools, getbootstrap.com

AngularJs and spring boot:

Angularjs-Angular.io, javatpoint

Springboot-Baeldung.com

JavaScript, jquery-W3Schools

PHP:

PHP, Mysql-W3Schools

Websites: www.fedex.com, www.wefast.in

2 Assumptions:

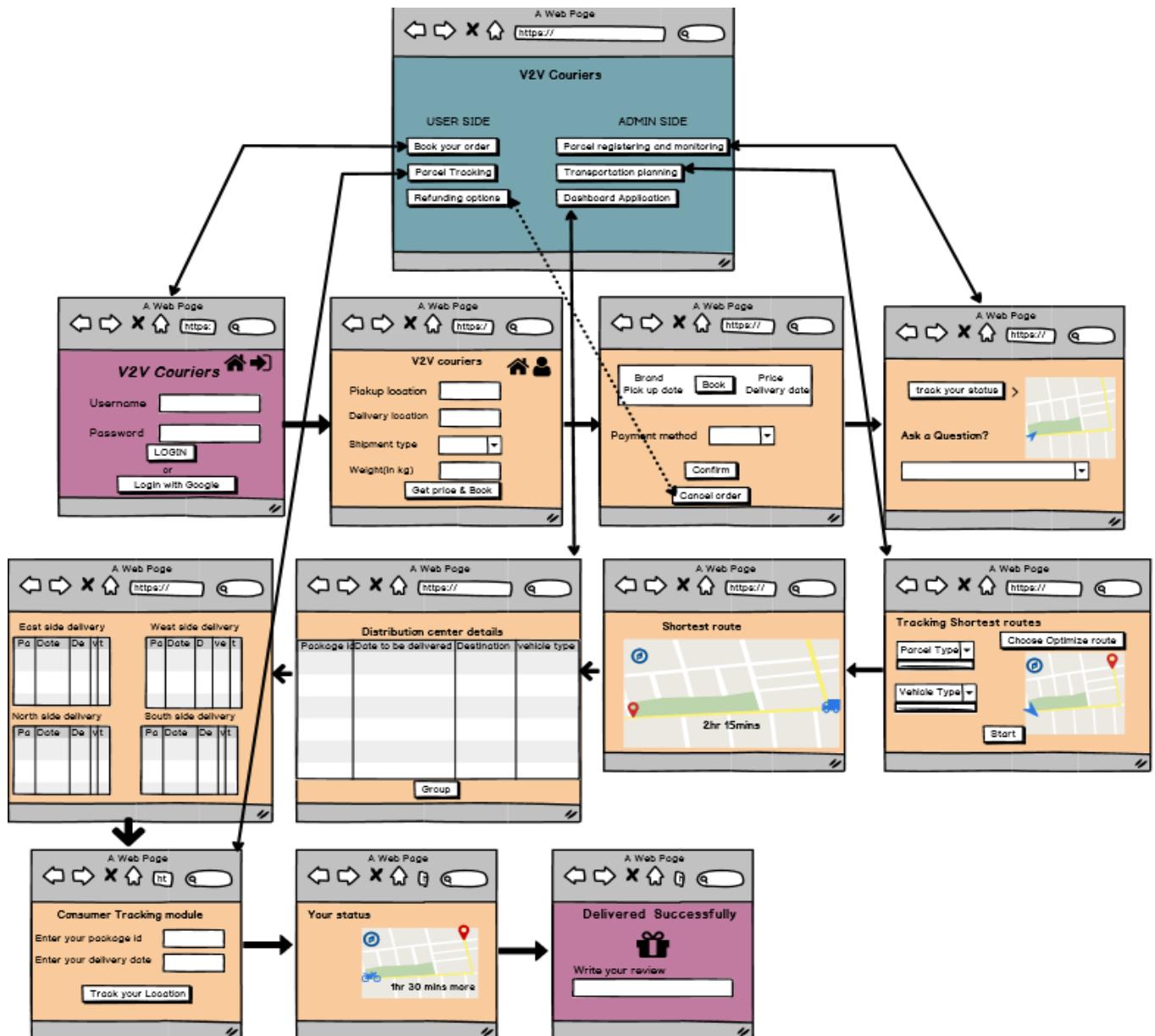
We used two different back end languages to show the differences (PHP and spring boot)

3 PROJECT OVERVIEW AND USECASE DIAGRAMS

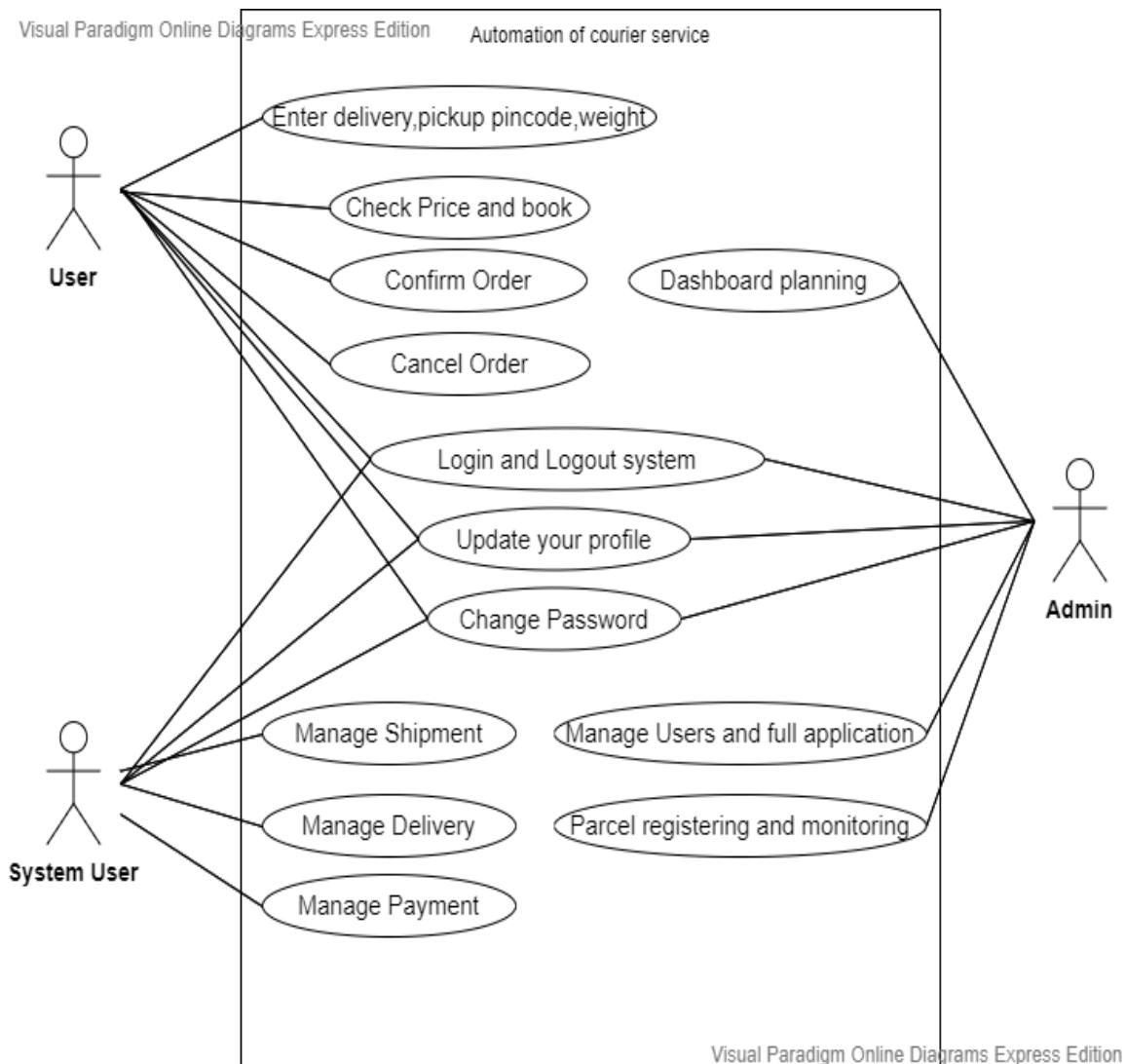
In contemporary world sending and receiving of articles like gift, electronic items etc... increases constantly. The manual way of delivering and receiving the articles is very ambitious. The main purpose of our project is to automate the existing manual system. Using this system valuable information can be stored for a long period of time with ease of access and manipulation. This system leads to error free, secure and reliable. It boosts the employers to focus on their other activities rather to focus on maintaining records. It also helps to

the timely delivery of the courier. Thus it will help the organization in better implementation of resources. Primarily this project describes how to improve performance and better services for the clients.

PROPOSED SYSTEM ARCHITECTURE:

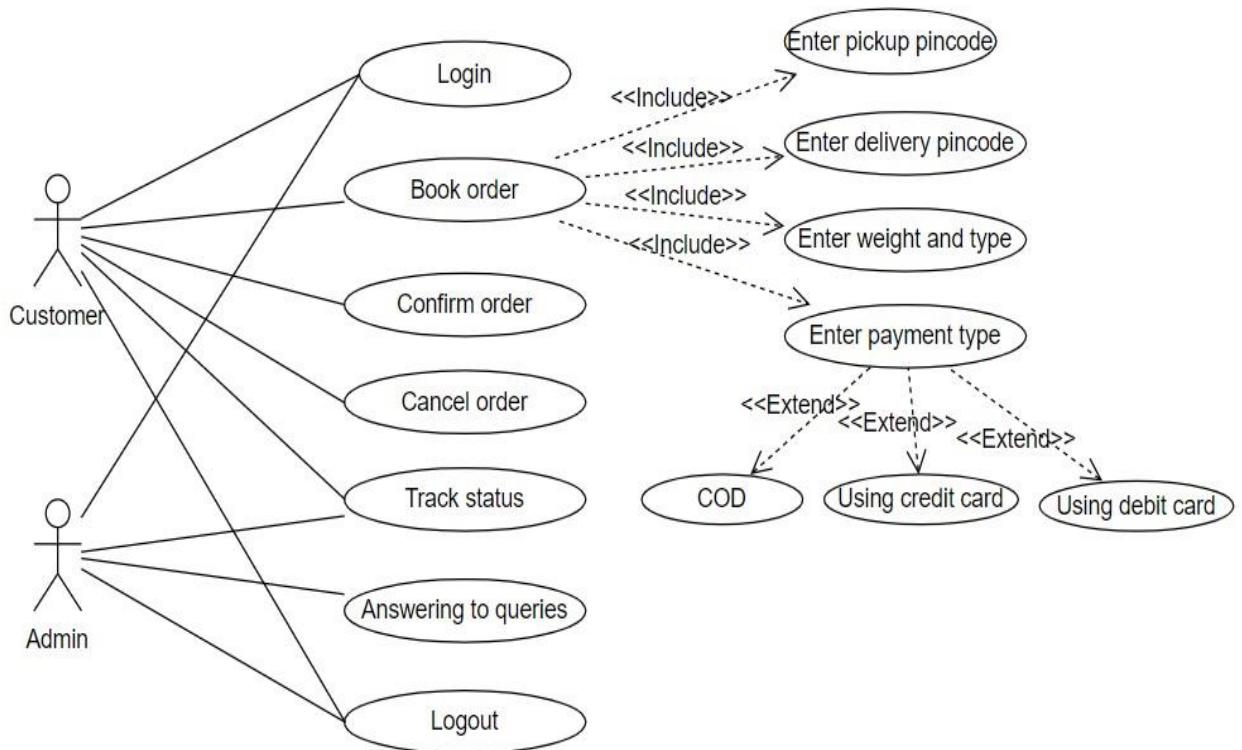


SYSTEM USECASE DIAGRAM FOR ALL MODULES:



USE CASE DIAGRAM FOR MODULE 1:

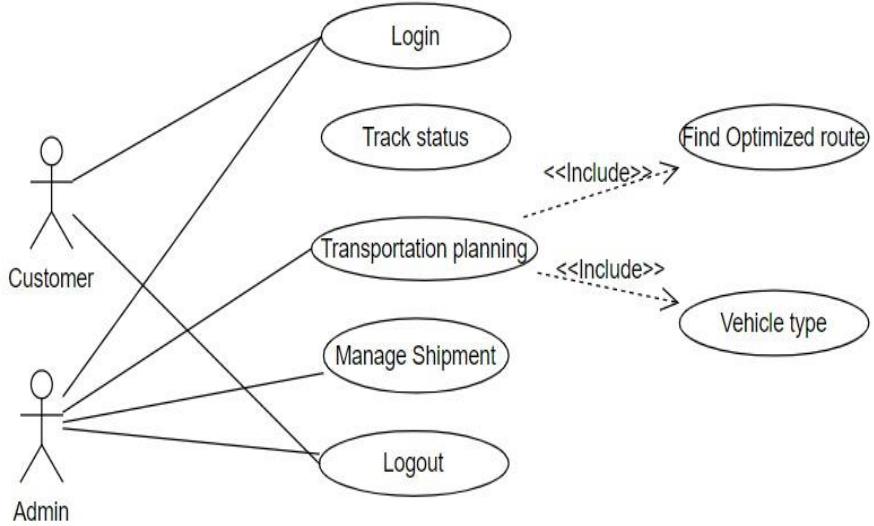
1. Parcel Registering and monitoring module:



USE CASE DIAGRAM FOR MODULE 2 and 3:

2. Parcels management module:

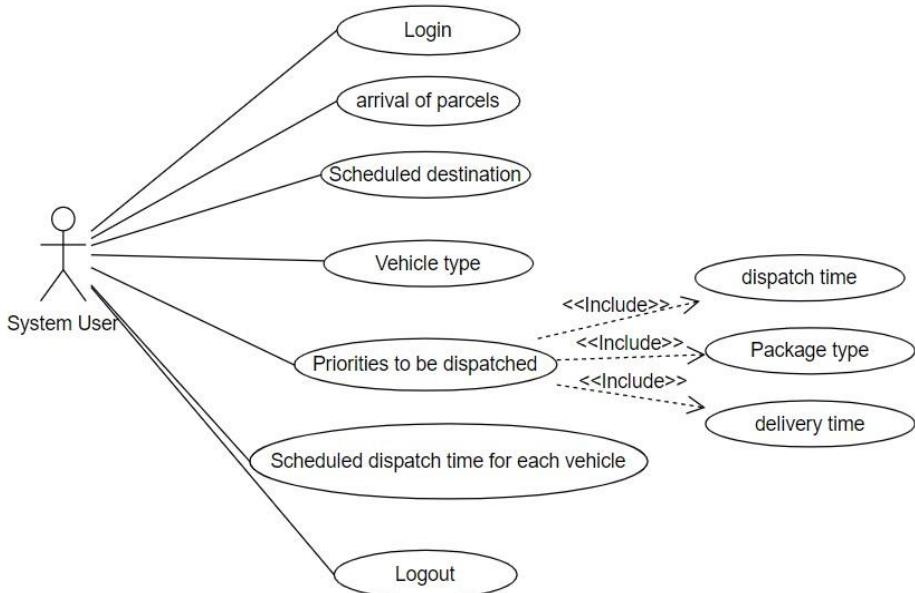
3. Transportation module:



USE CASE DIAGRAM FOR MODULE 4 and 5:

4. Dashboard Application

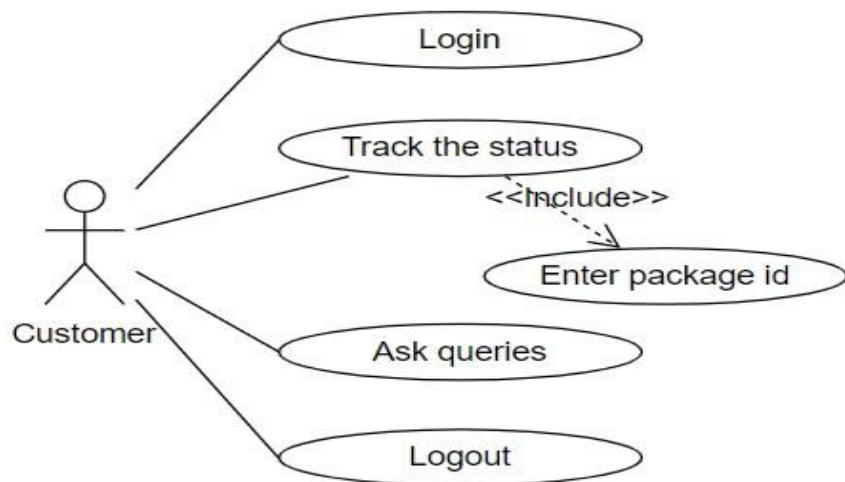
5. Parcel Location Data Capture Model



USE CASE DIAGRAM FOR MODULE 6 and 7:

6. Consumer Parcel tracking module:

7. Delivery module:



4 Detailed Design for Module:

There are 7 modules in this system

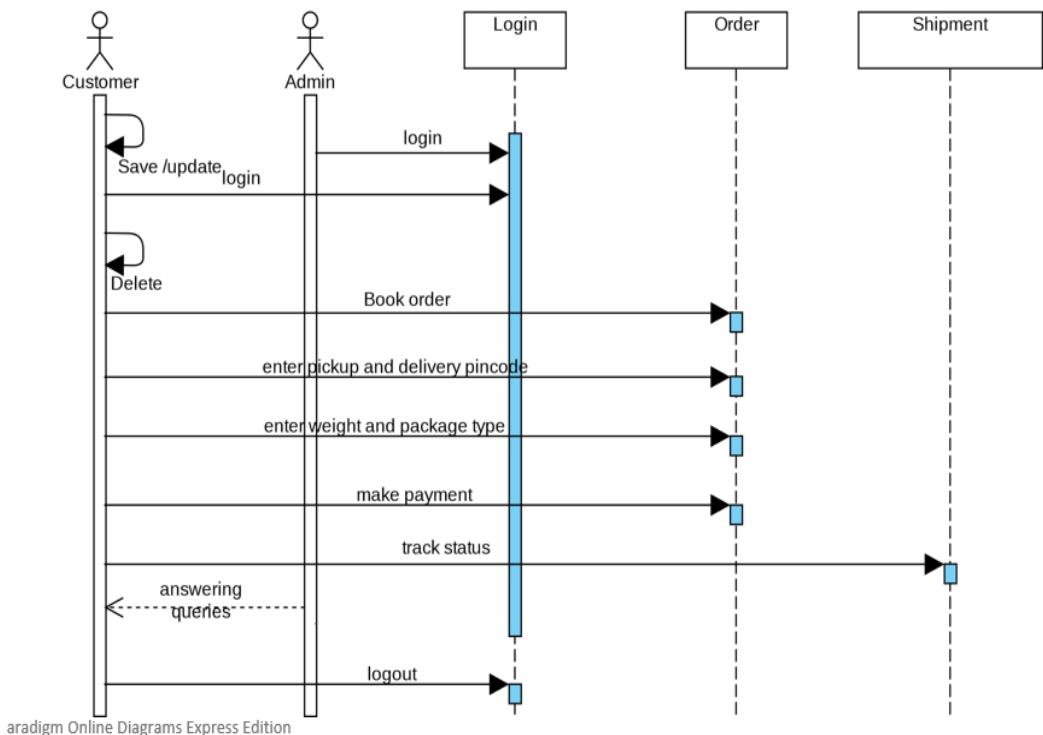
- Parcel Registering and monitoring Module
- Parcels management Module
- Transportation planning Module
- Dashboard Application
- Consumer Parcel Tracking Module
- Parcel Location Data Capture Module
- Reporting Module

1. Parcel registering and monitoring module:

- Used by the branch offices of the company
- This module represents accepting the parcels and payments from users
- The customer facing offices should be able to monitor the current status of the parcels to answer the queries from the customer.

The diagram illustrates a two-step process for parcel registration. The first step (left) is for entering basic shipping details: Pickup location, Delivery location, Shipment type, and Weight(in kg). A 'Get price & Book' button is present. The second step (right) follows, where users can specify more details: Brand, Pick up date, Price, Delivery date, Payment method, and a 'Confirm' button.

Sequence diagram for module 1:

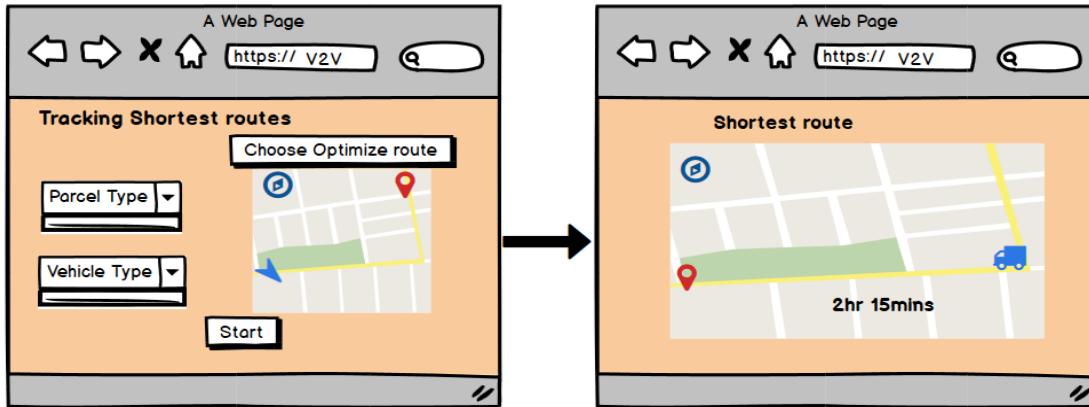


2. Parcels management module:

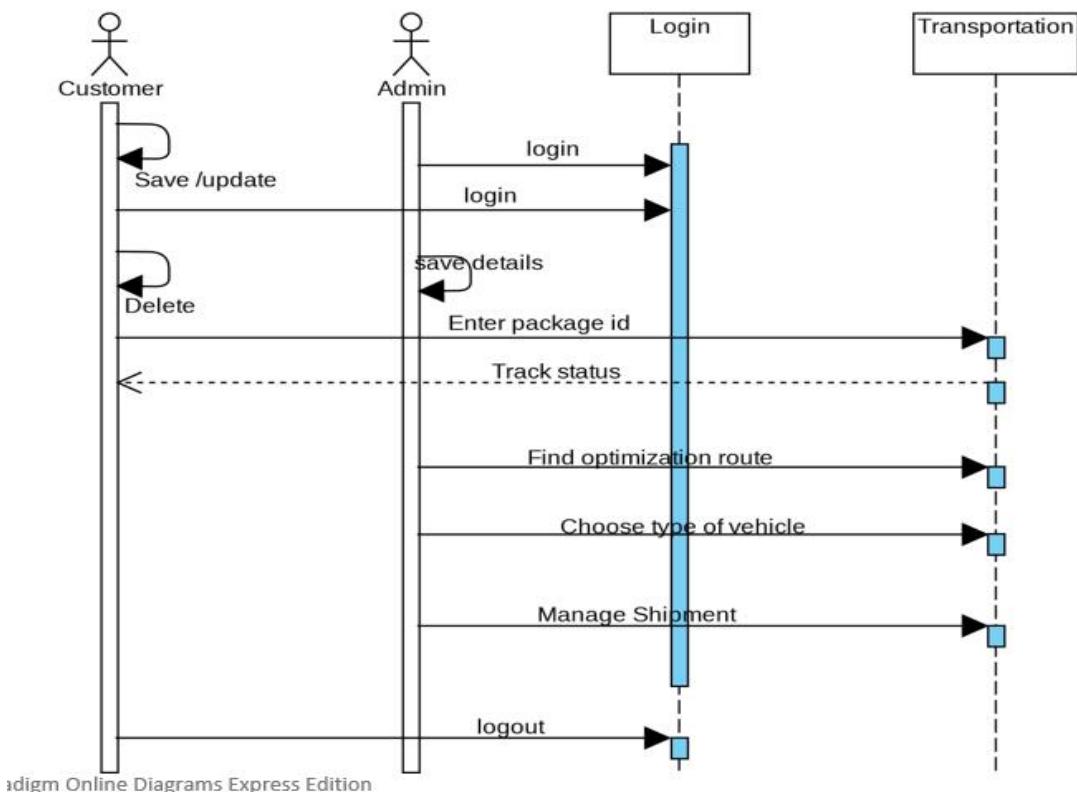
- Used by the back office to manage the parcel distribution.
- The main function of this module is transportation planning.
- Decide the optimum transport routes.

3. Transportation Planning:

- Manage transportation vehicles and their routes.
- Plan the Vehicle routes to optimize the cost.

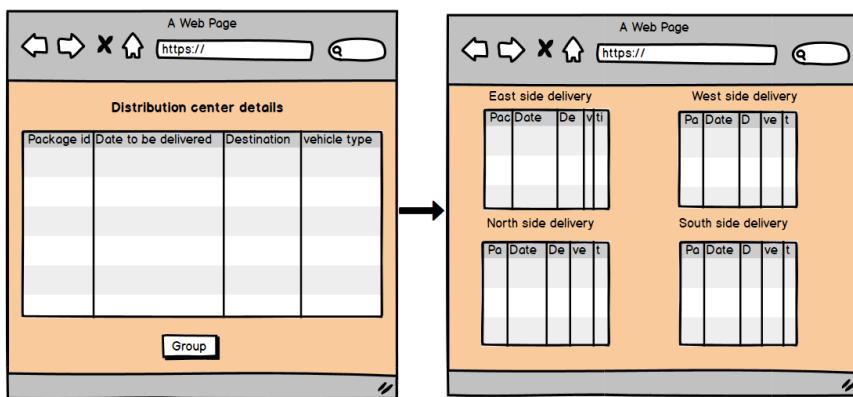


Sequence Diagram for module 2 and 3:



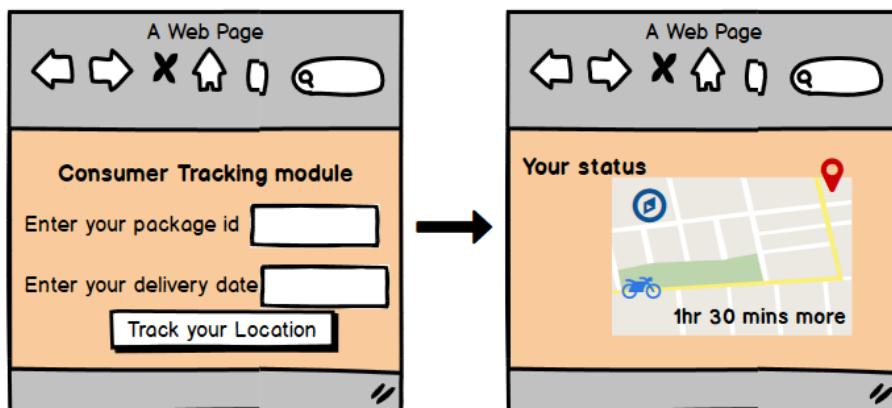
4. Dashboard Application:

- Provide the dashboard to the parcel distribution centres to optimize its operational efficiencies.
- This dashboard shows the arrival of parcels into the distribution centre

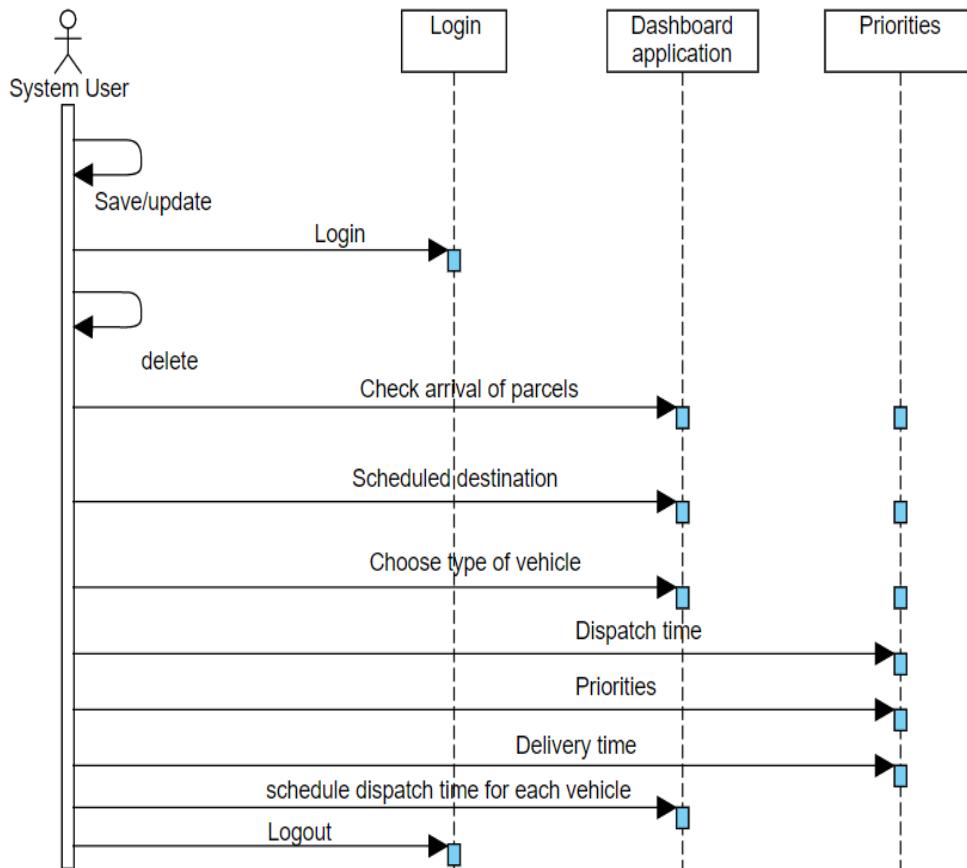


5. Consumer Parcel tracking module:

- Enables the customer to track the parcel location and their estimated arrival time using the parcel Id.



Sequence Diagram for module 4 and 5:



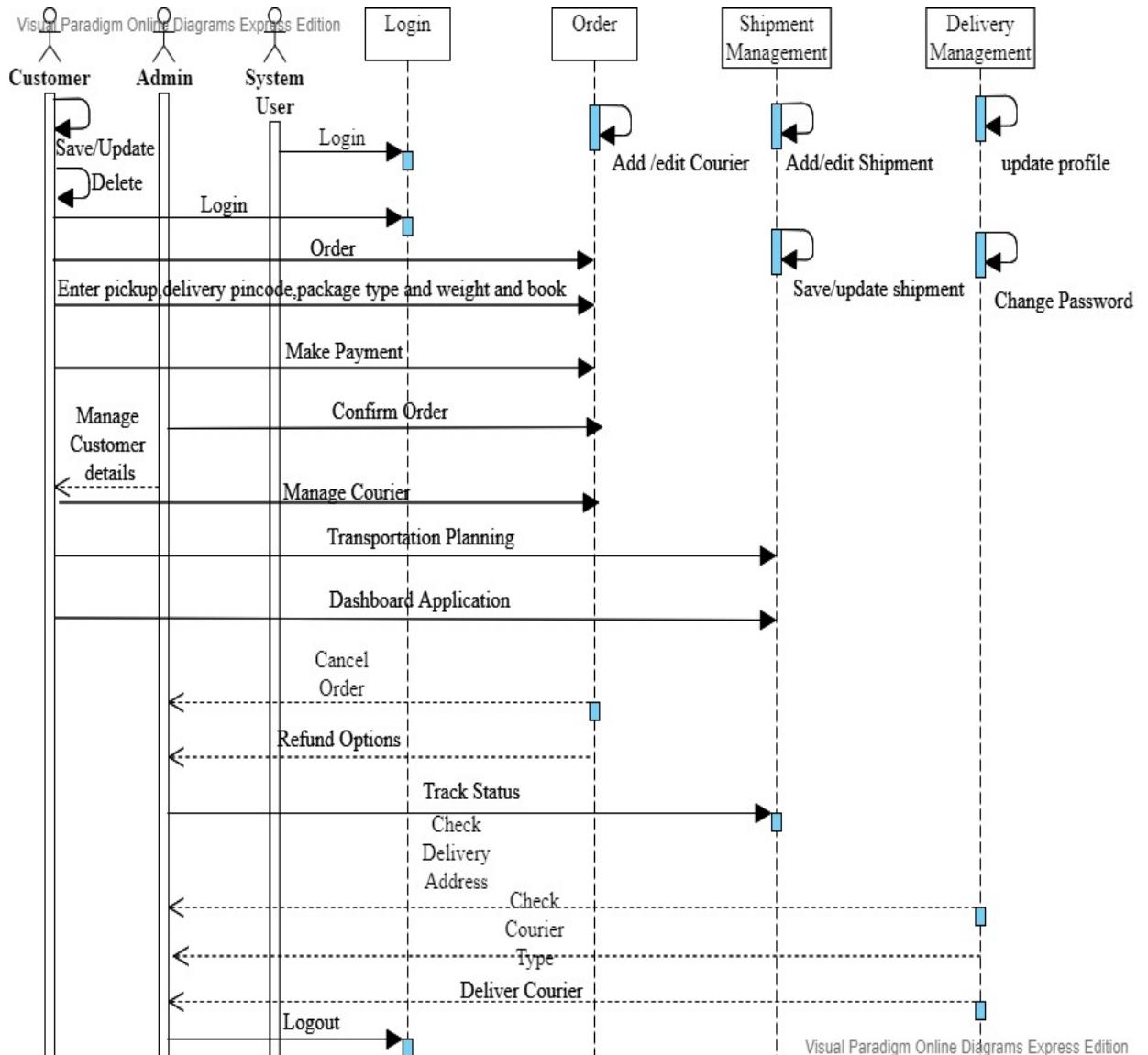
6. Parcel location data capture module:

- Captures entry and exit of all parcels to branch offices.
- Captures the location of each parcel transport vehicle in every 5 minutes.
- This information is used by the other modules to track the parcel location.

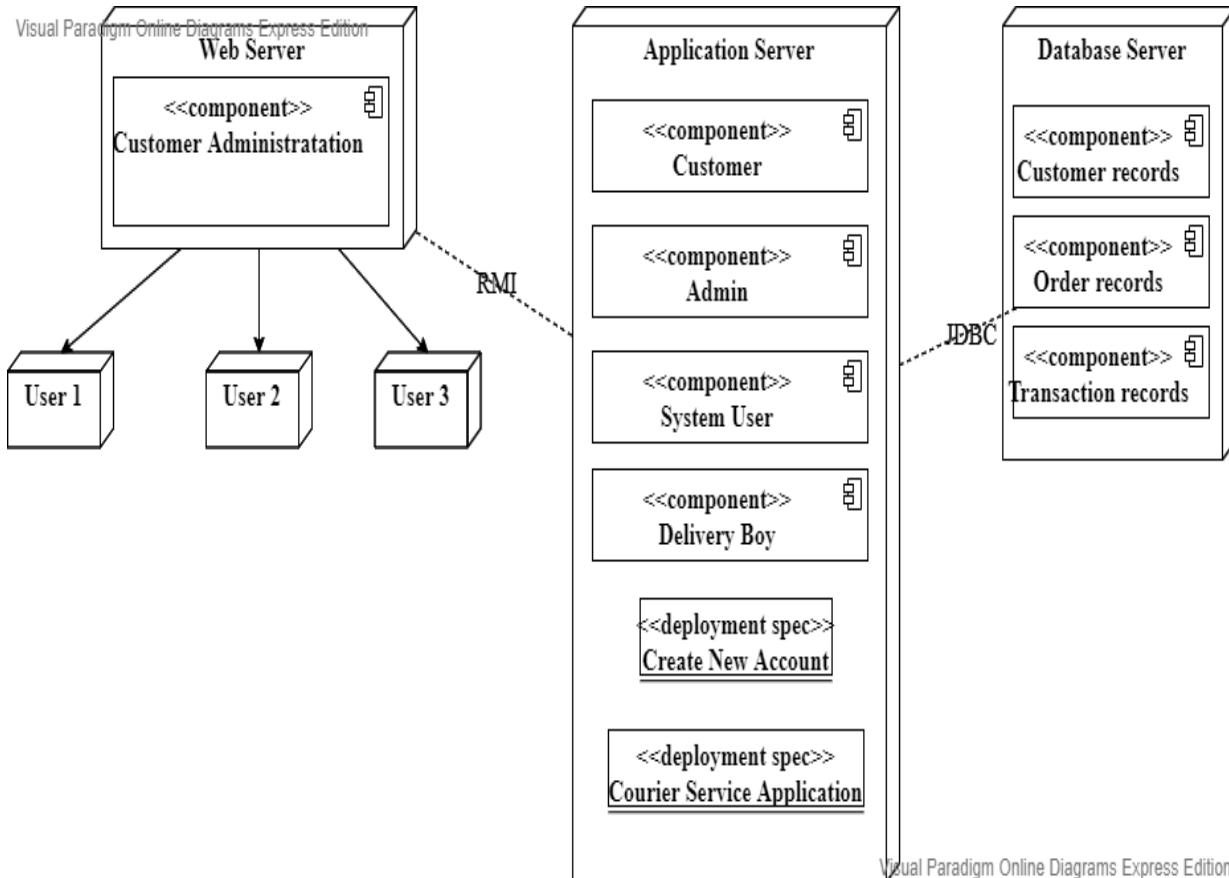
7. Reporting module:

- Used to generate reports.
- Plan the optimization of overall delivery process.

Overall Sequence diagram for all modules:



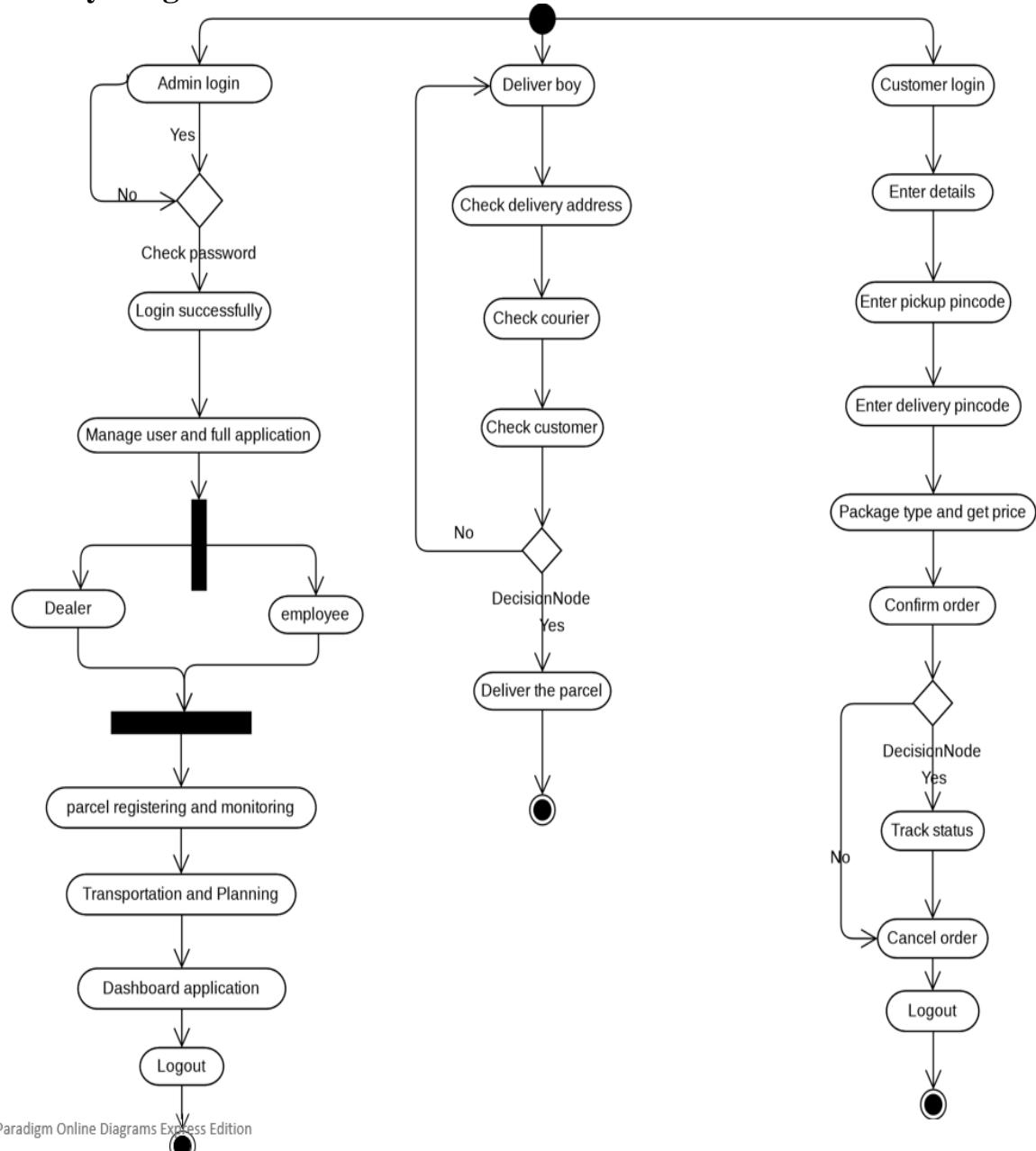
Deployment diagram:



The application server consists of

- Customer
- Admin
- System user
- Employee

Activity Diagram:



| Paradigm Online Diagrams Express Edition

By Using PHP

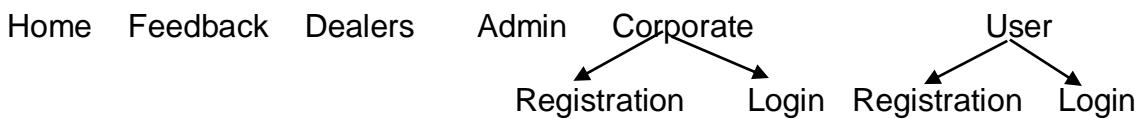
4.1 Detailed Design for Feature:

A. Home Page

4.1.1 User Profile

- Admin Login
- User Login
- User Registration
- Dealer Login
- Feedback
- Corporate Registration and Login

4.1.2 Navigation Map

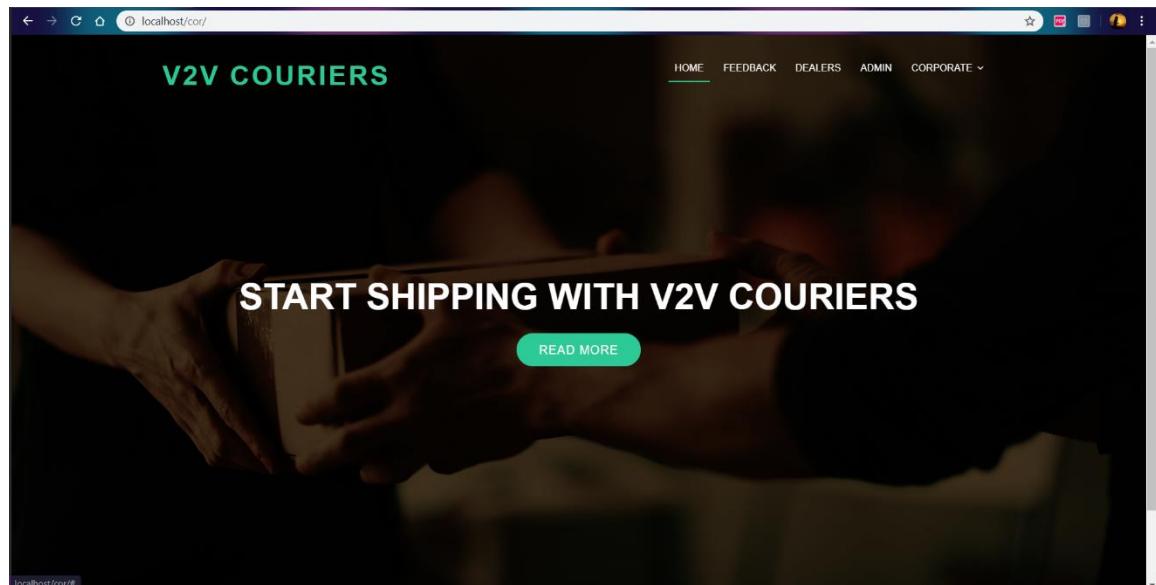


4.1.3 UI Screen Design

Page Summary	
Name	Home Page
Description	Includes User registration and login, Admin login, dealer login, Corporate registration and login

Name>

4.1.3.1 Screen Layout



4.1.3.2 Validations

Error Trigger	Action
If the user login without registration	Displays the message “Login error”
User enters an invalid name or password	Displays the message “Login error”

B. User Registration:

A screenshot of a web browser showing the "User Registration" form. The form is titled "User Registration" and contains fields for "User Name" and "Password", each with an associated input field. Below the input fields is a "Submit" button. In the bottom right corner of the form, there is a "Close" button. The background of the page shows the "V2V COURIERS" logo and the text "START SHIPPING WITH V2V COURIERS". The top navigation bar is visible at the top of the page.

Name>

C. User Login:

The screenshot shows a web browser window with the URL 'localhost/cor/admin/' in the address bar. The main content is a login form titled 'Sign In to Admin' with a mountain landscape background. It includes three text input fields: one for the username (labeled 'Enter your username') and one for the password (labeled 'Enter your password'), both with validation icons. A dropdown menu is also present, set to 'User'. At the bottom is a large blue button labeled 'Login to your account'.

Validations

Error Trigger	Action
If the user login without registration	Displays the message "Login error"
User enters an invalid name or password	Displays the message "Login error"
If the User enters the correct name and password	Login Success

D. User Module:

Navigation Map

Consignment Report → Add Consignment

Delivery → View Delivery

UI Screen Design

Name>

Page Summary

Name	User Module
Description	Includes Add Consignment to book order and view delivery option to book order

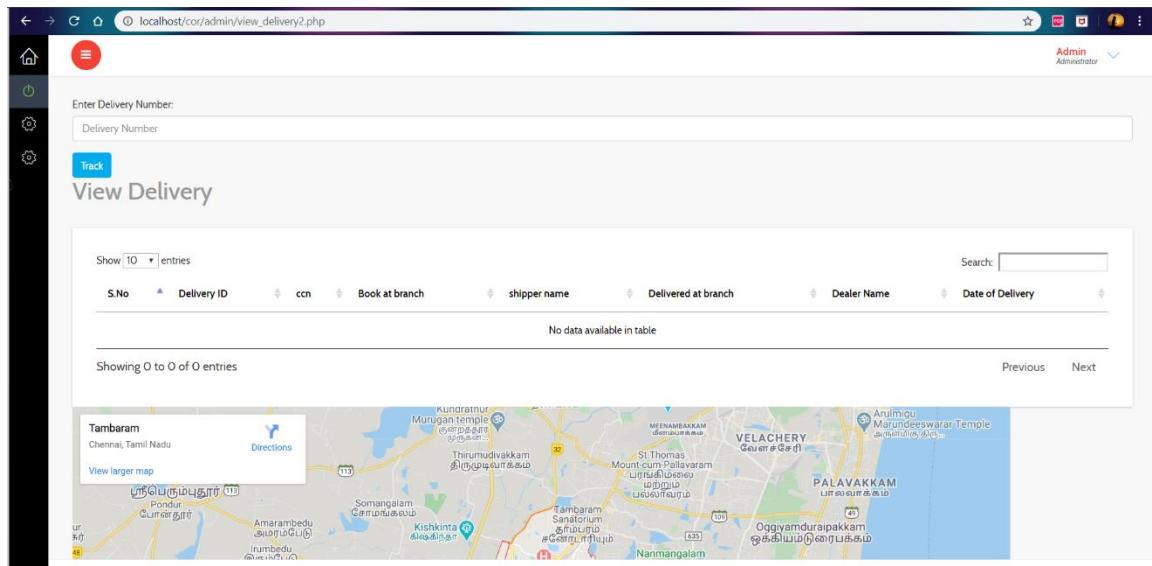
Consignment Report:

Shipper Name:	Shipper Name
Shipper address :	Enter shipping address
Phone:	Enter phone
Material Description:	document
No of item:	Enter no of item
Total weight:	Enter name
Category:	speed
Corporate id:	Enter name
Branch Id :	select
Date of booking :	Enter name
book at Branch :	Enter name
Branch location :	Enter branch location

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View Delivery: (to track the status)

Name>

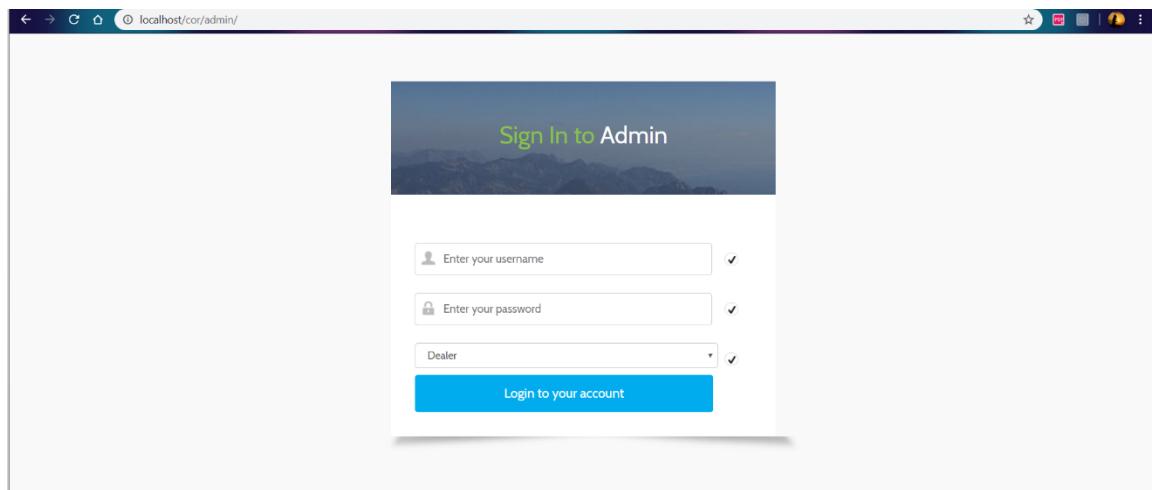


The screenshot shows a web application interface for tracking deliveries. At the top, there's a header with a home icon, a search bar containing 'localhost/cor/admin/view_delivery2.php', and a dropdown menu for 'Admin Administrator'. Below the header, there's a sidebar with icons for home, track, and settings. The main content area has a title 'View Delivery' and a subtitle 'Track'. A search bar for 'Delivery Number' is present. Below that is a table with columns: S.No, Delivery ID, ccn, Book at branch, shipper name, Delivered at branch, Dealer Name, and Date of Delivery. A message 'No data available in table' is displayed. At the bottom, it says 'Showing 0 to 0 of 0 entries' with 'Previous' and 'Next' buttons. The background features a map of a region in Tamil Nadu, India, with various towns and landmarks marked.

E. Dealer Login

Validations

Error Trigger	Action
If the dealer login without registration	Displays the message "Login error"
dealer enters an invalid name or password	Displays the message "Login error"



The screenshot shows a login page titled 'Sign In to Admin'. The page has a blue header with the text 'Sign In to Admin'. Below the header is a form with three input fields: 'Enter your username', 'Enter your password', and a dropdown menu set to 'Dealer'. A large blue button at the bottom right says 'Login to your account'.

F. Dealer Module:

Dealer Profile

- Branch details
- Consignment report
- Optimized route
- Feedback
- Delivery
- Dispatches
- Receiver

Navigation Map

Branch details → View Branch → Add Emp → View Emp → Place request

Consignment Report → Add Consignment → View Consignment

Optimized route → Find Optimized route

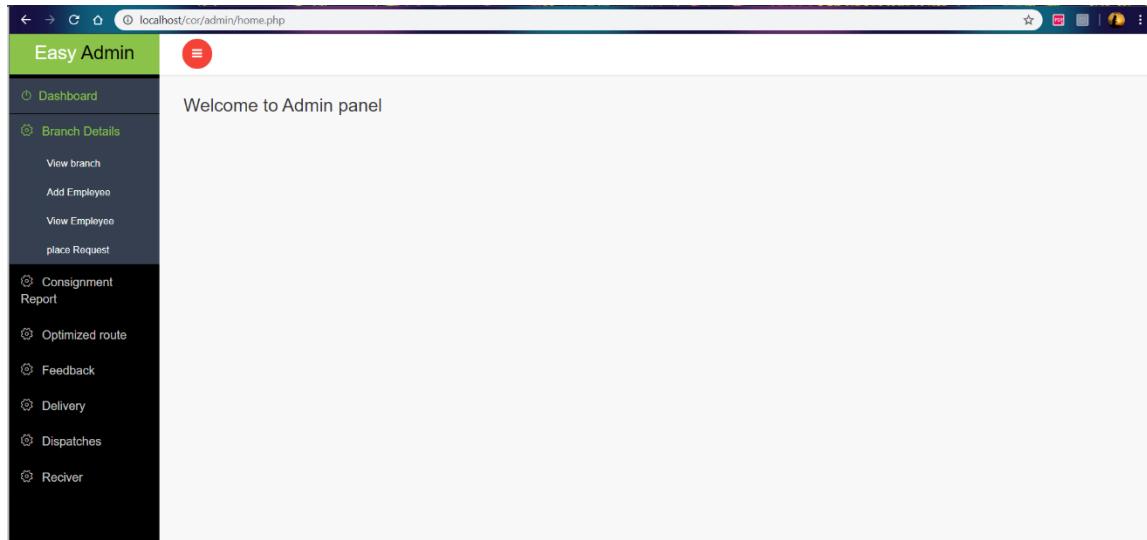
Feedback → View Feedback

Delivery → Add delivery → View delivery

Dispatches → Add dispatches → View dispatches

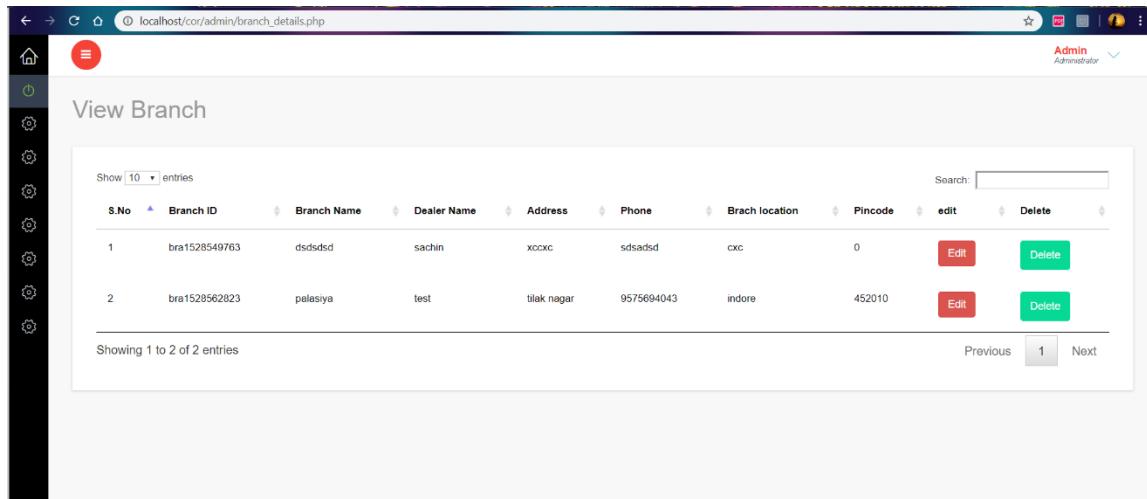
Receiver → Add receiver → View receiver

Name>



The screenshot shows a web browser window with the URL `localhost/cor/admin/home.php`. The title bar says "Easy Admin". The left sidebar has a dark theme with white text. It includes a "Dashboard" icon, a "Branch Details" section with "View branch", "Add Employee", "View Employee", and "place Request" options, and other sections like "Consignment Report", "Optimized route", "Feedback", "Delivery", "Dispatches", and "Receiver". The main content area displays the message "Welcome to Admin panel".

View Branch:



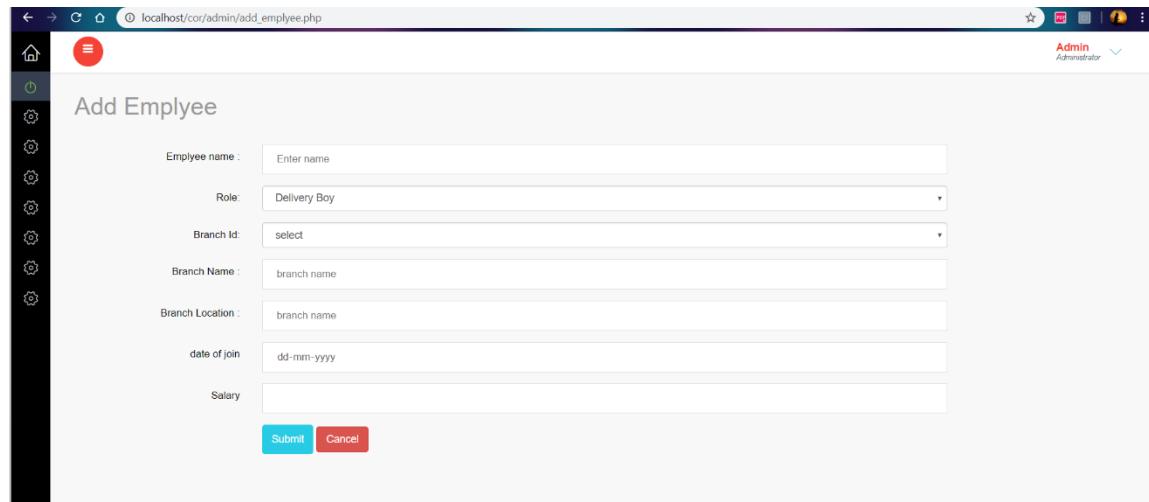
The screenshot shows a web browser window with the URL `localhost/cor/admin/branch_details.php`. The title bar says "Admin Administrator". The left sidebar has icons for home, settings, and other admin functions. The main content area is titled "View Branch". It features a table with columns: S.No, Branch ID, Branch Name, Dealer Name, Address, Phone, Brach location, Pincode, edit, and Delete. There are two entries:

S.No	Branch ID	Branch Name	Dealer Name	Address	Phone	Brach location	Pincode	edit	Delete
1	bra1528549763	dsdsdsd	sachin	xccxc	sdsadsd	cxc	0	<button>Edit</button>	<button>Delete</button>
2	bra1528562823	pelasiya	test	tilak nagar	9575694043	indore	452010	<button>Edit</button>	<button>Delete</button>

At the bottom, it says "Showing 1 to 2 of 2 entries" and has "Previous" and "Next" buttons.

Add Employee:

Name>



Add Employee

Employee name :

Role:

Branch Id:

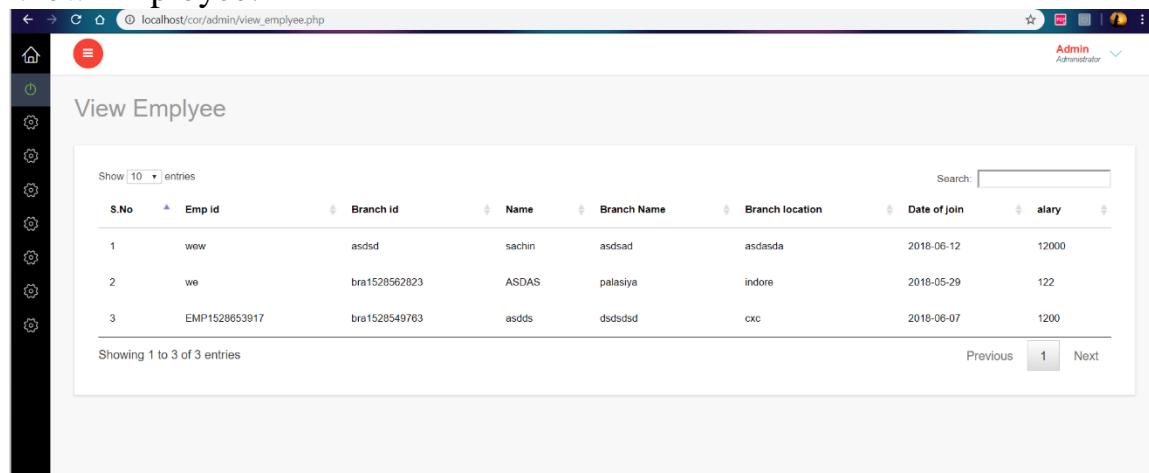
Branch Name :

Branch Location :

Date of join :

Salary :

View Employee:



View Employee

S.No	Emp id	Branch Id	Name	Branch Name	Branch location	Date of join	salary
1	wew	asdsd	sachin	asdsad	asdasda	2018-06-12	12000
2	we	bra1528562023	ASDAS	palasiya	indore	2018-05-29	122
3	EMP152853917	bra1528549763	asdds	dsdsdsd	cxc	2018-06-07	1200

Showing 1 to 3 of 3 entries

Previous Next

Place request:

Name>

localhost/cor/admin/add_dealerrequest.php

Admin
Administrator

Applicant Name:

Applicant Address:

Applicant Phone:

Date of Apply:

Amount Deposited:

Branch Location:

Office Address:

Pin code:

Submit **Cancel**

View Consignment:

localhost/cor/admin/view_consignment.php

Admin
Administrator

View Branch

Show 10 entries	Search:														
Book Id	Ccn	Shi name	shi address	phone	material	item	Braid	book branch	bra location	booking	Destination	charge	C id	Reciver name	Reciver address
Book1585026295	Divya Karthiga	Madurai	9790402222	document	4	bra1528549763	Madurai	Madurai	0000-00-00	Chennai	Ramesh	Chennai			
Book1585042665	mekala	Chennai	9790402244	document	5	bra1528562823	Chennai	Chennai	0000-00-00	Pondicherry	Vimal	Pondicherry			

Showing 1 to 2 of 2 entries

Previous 1 Next

Find Optimized route:

localhost/cor/admin/optimized.php

Admin
Administrator

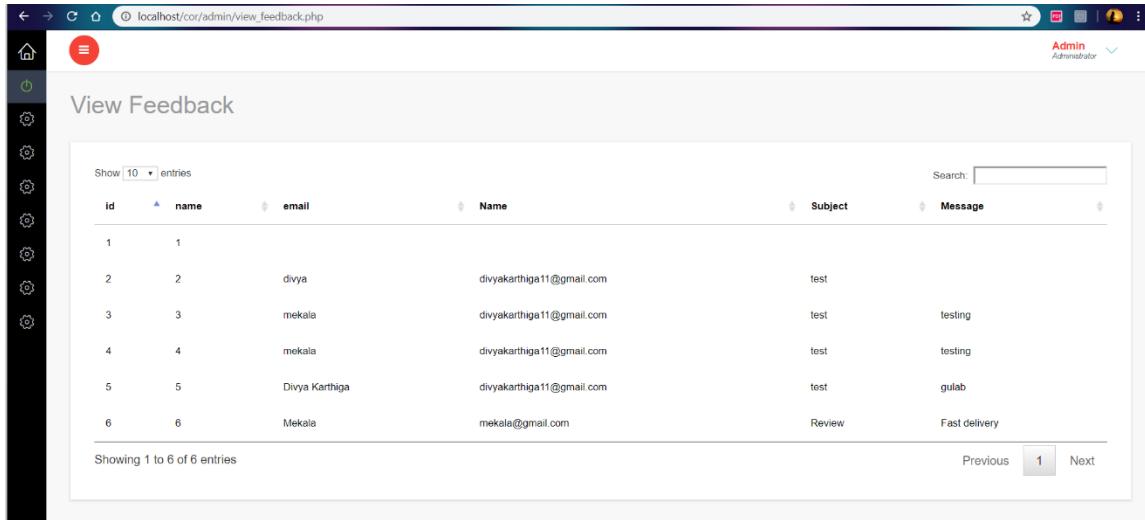
From

To

Find shortest route

Name>

View Feedback:

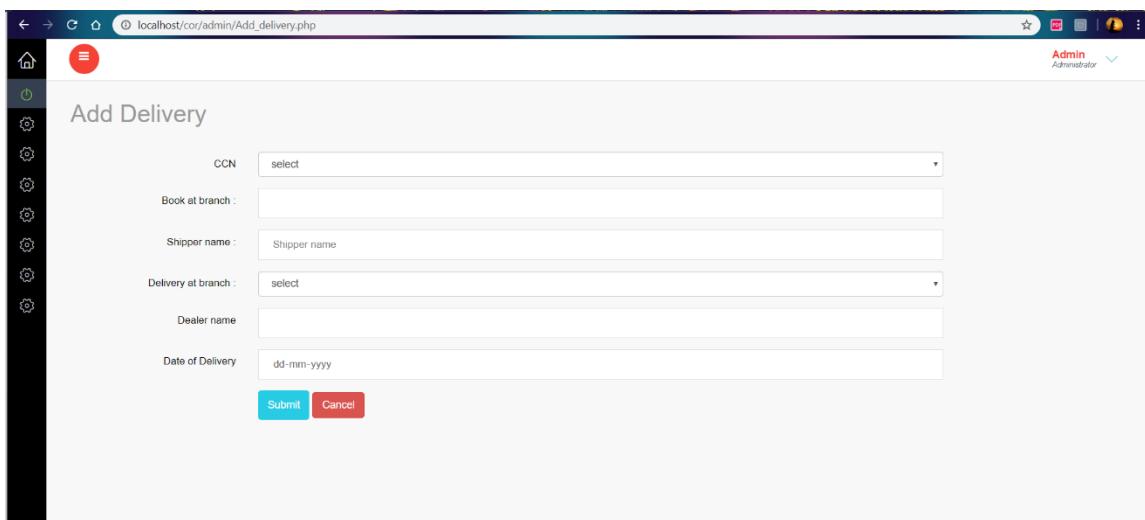


Show	10	entries		Search:	
ID	name	email	Name	Subject	Message
1	1				
2	2	divya	divyakarthiga11@gmail.com	test	
3	3	mekala	divyakarthiga11@gmail.com	test	testing
4	4	mekala	divyakarthiga11@gmail.com	test	testing
5	5	Divya Karthiga	divyakarthiga11@gmail.com	test	gulab
6	6	Mekala	mekala@gmail.com	Review	Fast delivery

Showing 1 to 6 of 6 entries

Previous 1 Next

Add delivery:



Add Delivery

CCN :	<input type="text" value="select"/>
Book at branch :	<input type="text"/>
Shipper name :	<input type="text" value="Shipper name"/>
Delivery at branch :	<input type="text" value="select"/>
Dealer name :	<input type="text"/>
Date of Delivery :	<input type="text" value="dd-mm-yyyy"/>
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>	

Name>

View Delivery:

Enter Delivery Number:
Delivery Number

Track

View Delivery

Show 10 entries

S.No ▲ Delivery ID ▲ ccn ▲ Book at branch ▲ shipper name ▲ Delivered at branch ▲ Dealer Name ▲ Date of Delivery ▲

No data available in table

Showing 0 to 0 of 0 entries

Previous Next

Add dispatches:

Phone no :

Sender Address:

Receiver name:

Receiver PhoneNo:

Receiver Address:

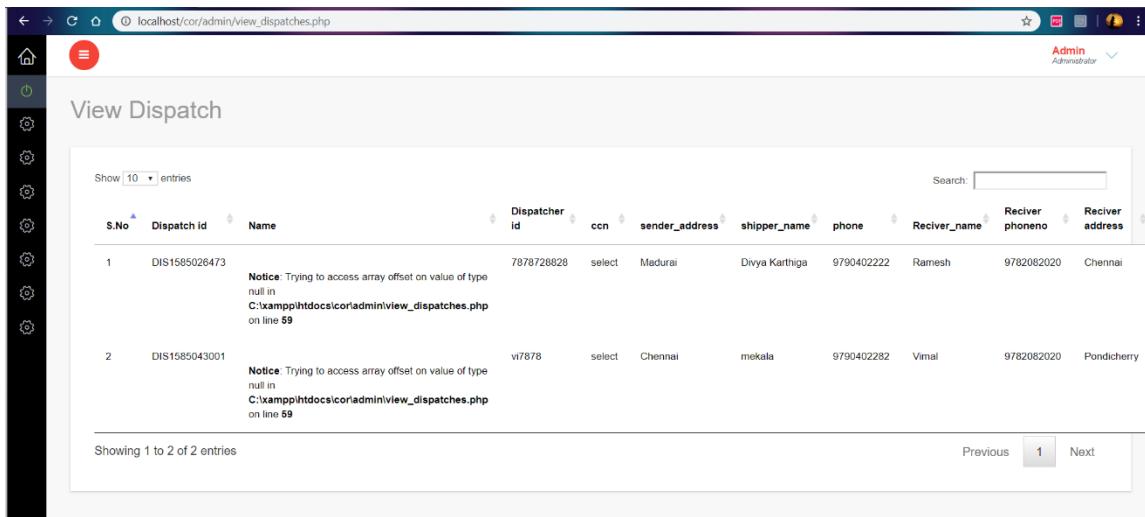
Assigned to: select

Dispatcher Id:

Submit Cancel

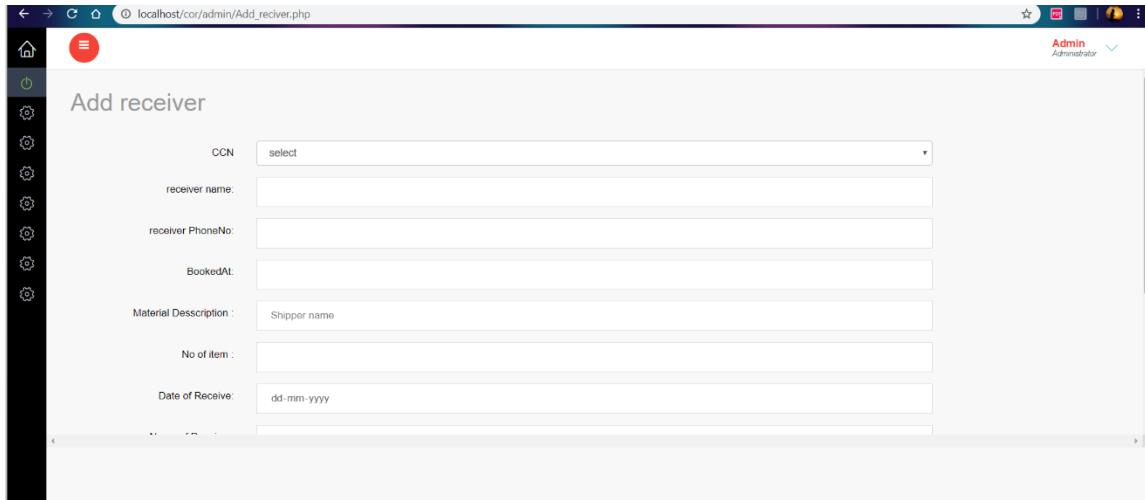
View dispatches:

Name>



S.No	Dispatch id	Name	Dispatcher id	ccn	sender_address	shipper_name	phone	Reciver_name	Reciver_phoneno	Reciver_address
1	DIS1585026473		7878728828	select	Medurai	Divya Karthiga	9790402222	Ramesh	9782082020	Chennai
2	DIS1585043001		vi7878	select	Chennai	mekala	9790402282	Vimal	9782082020	Pondicherry

Add receiver:



CCN:

receiver name:

receiver PhoneNo:

BookedAt:

Material Description : Shipper name

No of item :

Date of Receive: dd-mm-yyyy

View Receiver:

Name>

S.No	Receiver ID	CCN	Receiver Name	Receiver phone no	Book at branch	material Description	no of item	Date of receive	Name of Receive	Relation	Dispatcher name	DispatcherID
1						sdsad	21	2018-06-15	wd	adsad	wew	wew
2	REC1528808024	1122	2121	1212		sdsds	21	2018-06-15	sdsd	sdsd	wew	wew
3	REC1528808913	1122	2121	1212	121							

Showing 1 to 3 of 3 entries

Previous 1 Next

G. Admin Module:

Welcome to Admin panel

Navigation Map

Dealer Request → Add request → View request

Branch → Add branch → View branch

Add request:

Name>

Add DealerShip Request

Applicant Name:

Applicant Address:

Applicant Phone:

Date of Apply:

Amount Deposited:

Branch Location:

Office Address:

View request:

View Dealership Request

S.No	Request ID	Name	Address	Phone	Date of apply	Amount	Brach location	office address	Pincode
1	1528562775	test	indore	9575694043	2018-06-15	23000	indore	tilak nagar	452010
2	1585022675	divya	no.24 mariamman koil street,perumugai	9999999999	2020-03-12	668	chennai	chennai	632001

Showing 1 to 2 of 2 entries

Add Branch:

Name>

Add Branch Address

Request id:

Dealer name :

Branch Location :

Branch Name :

Pincode :

Phone :

Branch Address :

View branch:

Show 10 entries

S.No	Branch ID	Request ID	Branch Name	Dealer Name	Address	Phone	Brach location	Pincode
1	bra1528549763	54545	dsdsdsd	sachin	xxxxc	sdsadsd	cxc	0
2	bra1528562823	1528562775	palasiya	test	tilak nagar	9575694043	indore	452010

Showing 1 to 2 of 2 entries

Search:

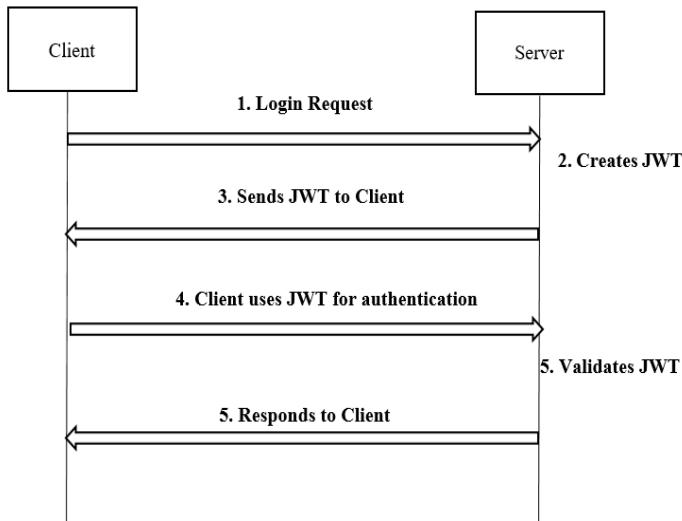
Previous Next

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By Using Spring Boot and Angularjs:

Used JSON web token for authentication purposes:

Consider that the client is requesting the server for login. The server creates a JSON web token by signing it with a key and it sends the web token to the client. Then the client in all the subsequence request just making it to the server adds the JSON web token to the header. When the server receives the JSON web token it validates the token. If the validation is successful, it responds back to the client. This is how the JSON web token works.



When the user logged in to the system, the server will generate the JSON web token for that user. The user will use the token for all the subsequence requests. If we restart the server afterwards, as we are generating the key at the time of server startup, the original key which was used to sign the JSON web token will be changed to another key. And when the server has startup, when the user makes the request the validation will be failed as the key has changed. So to fix this error we can use the Asymmetric Encryption using Java Keystore

In Asymmetric encryption mechanism we use a Java keystore which consists of public key and private key. When we generating the token, we use private key to generate the token and the public key is used to validate the token. The advantage of using keystore is once the keystore is created, we can store it in the source folder on the disc. We can read the public key and private key whenever needed. This avoids all the inconsistencies with the key.

4.2 Detailed Design for Feature:

H. Home Page

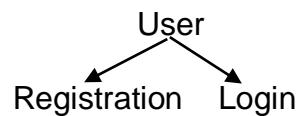
4.2.1 User Profile

- Admin Login
- User Login
- User Registration
- Dealer Login
- Feedback

4.2.2 Navigation Map

Home Feedback Dealers

Admin

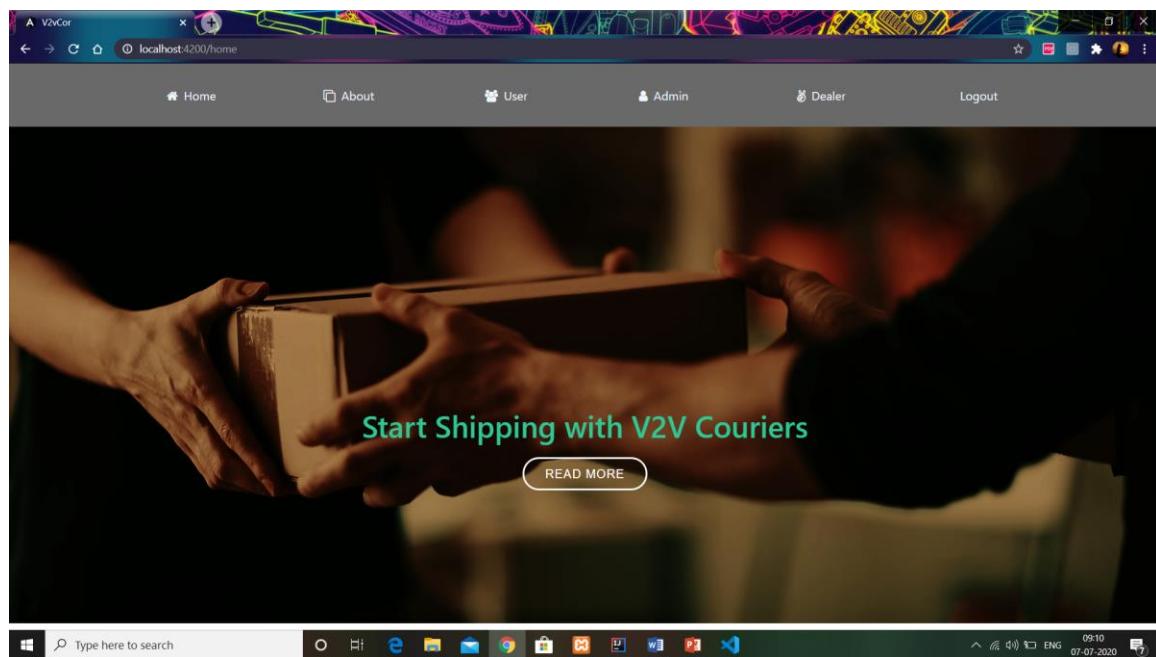


4.2.3 UI Screen Design

Page Summary	
Name	Home Page
Description	Includes User registration and login, Admin login, dealer login, Corporate registration and login

Name>

4.2.3.1 Screen Layout

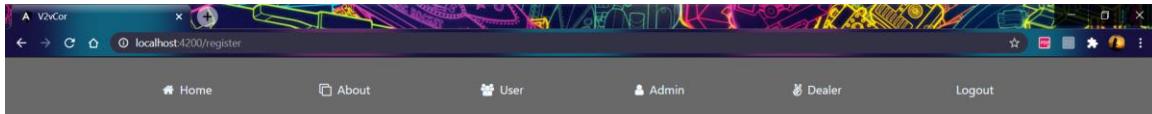


4.2.3.2 Validations

Error Trigger	Action
If the user login without registration	Displays the message “Login error”
User enters an invalid name or password	Displays the message “Login error”

Name>

I. User Registration:



PLEASE REGISTER

Username
Email
Password
Confirm Password
Sign Up

J. User Login:



USER LOGIN

Username
Password
Login



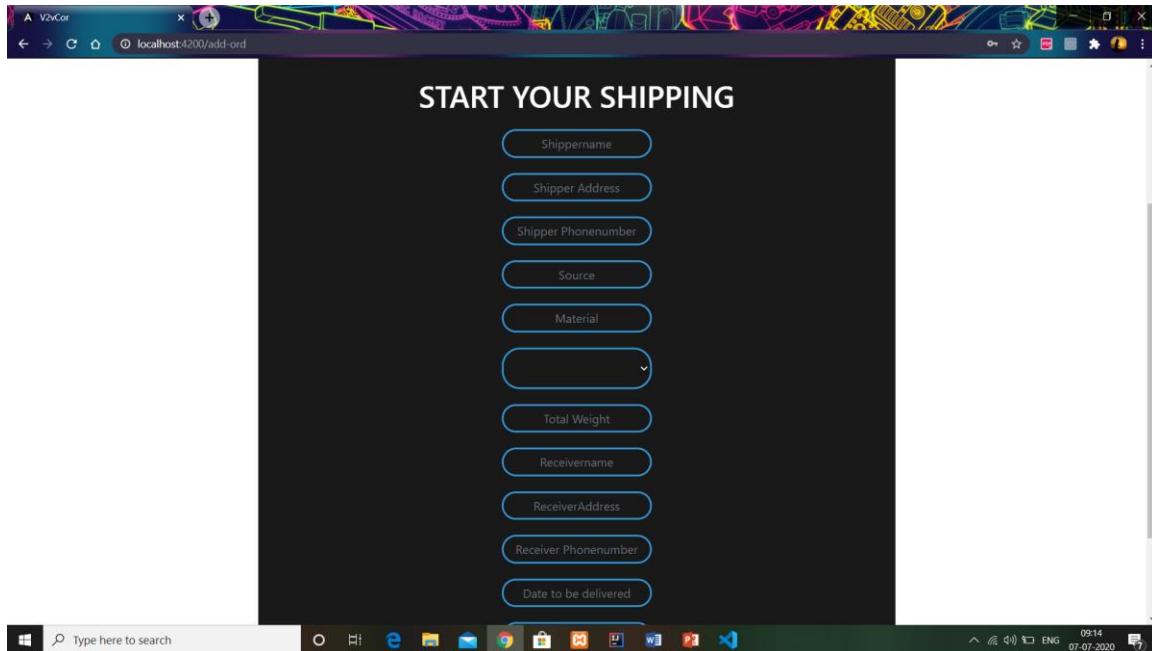
Validations

Error Trigger	Action
If the user login without registration	Displays the message “Login error”
User enters an invalid name or password	Displays the message “Login error”
If the User enters the correct name and password	Login Success

K. User Module:

Navigation Map

Consignment Report → Add Consignment
 Track Status → Using Delivery Id
 Feedback → Add Feedback, View Feedback



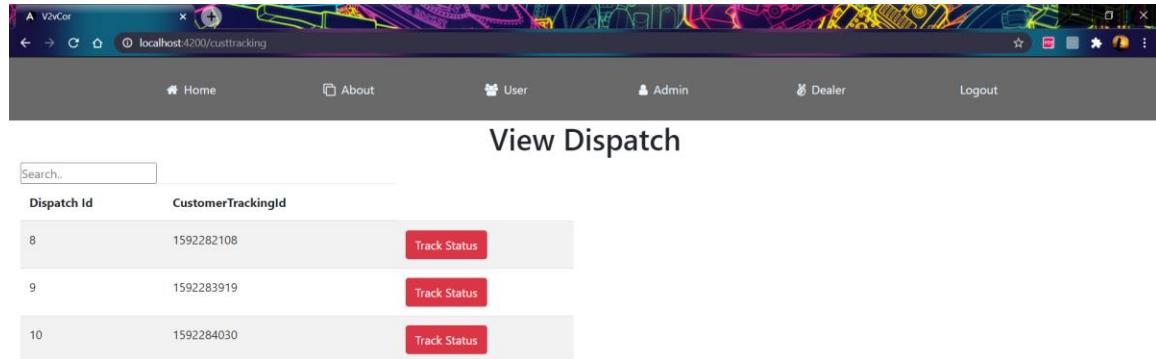
UI Screen Design

Page Summary	
Name	User Module

Name>

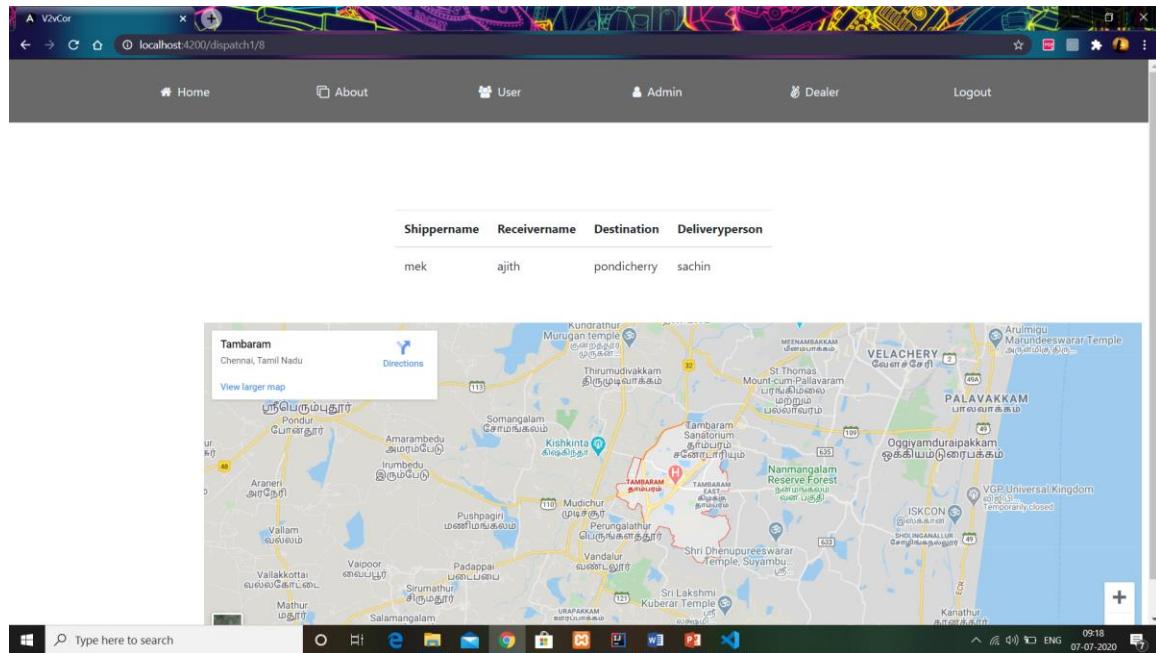
Description	Includes Add Consignment to book order ,Status Tracking and Add and view feedback option to book order
--------------------	--

Status Tracking



The screenshot shows a web application titled "View Dispatch". It has a search bar at the top left. Below it is a table with two columns: "Dispatch Id" and "CustomerTrackingId". There are three rows of data:

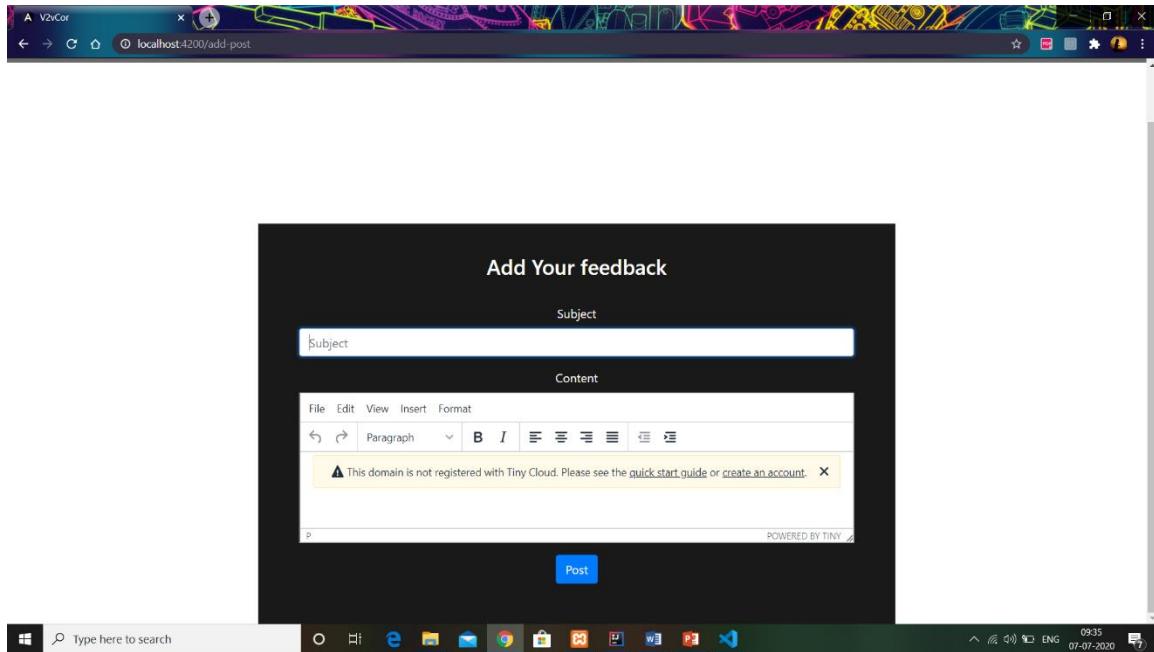
Dispatch Id	CustomerTrackingId	
8	1592282108	Track Status
9	1592283919	Track Status
10	1592284030	Track Status



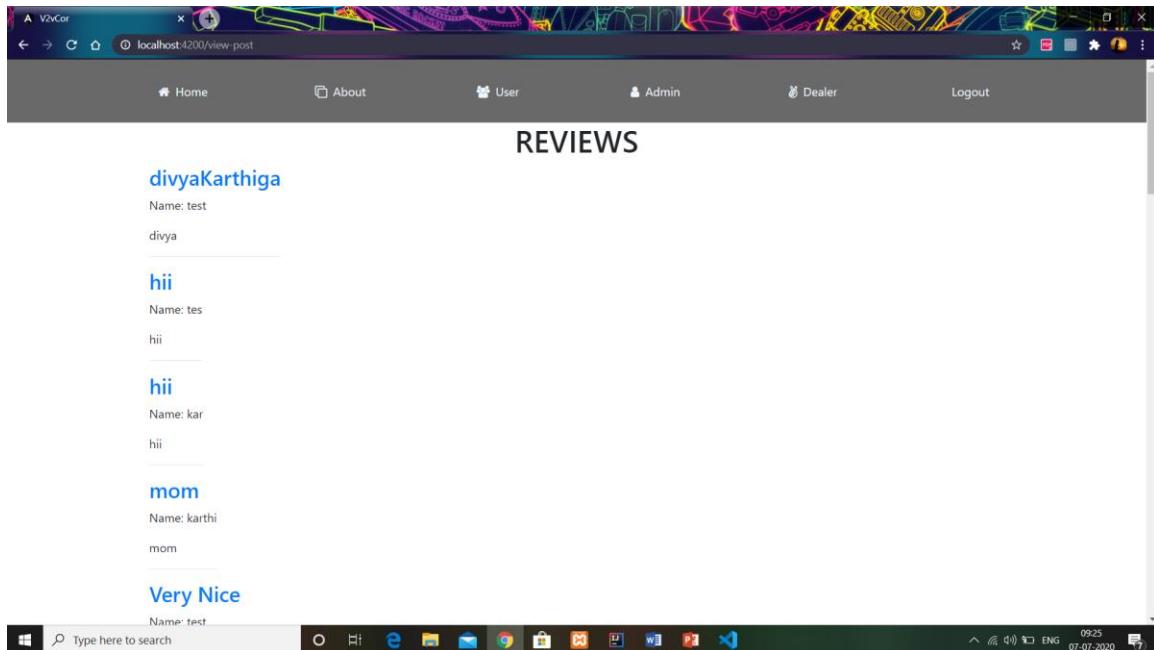
The screenshot shows a web application with a header and a map of Tambaram, Tamil Nadu. The map includes various locations such as Murugan temple, Somangalam, Kishkinta, Mudichur, Perungalathur, Vandar, Sirumathur, Salamangalam, Araneri, Vallam, Valpor, Matthur, and Arulmigu Marudeeswarar Temple. A search bar at the bottom left says "Type here to search". The taskbar at the bottom shows icons for File Explorer, Task View, Edge, Google Chrome, File Manager, and others.

Add Feedback:

Name>



View Review:



L. Dealer Login

Validations

Name>

Error Trigger	Action
If the dealer login without registration	Displays the message “Login error”
dealer enters an invalid name or password	Displays the message “Login error”




M. Dealer Module:

Dealer Profile

- Branch details
- Consignment report
- Optimized route
- Feedback
- Delivery
- Dispatches
- Receiver

Navigation Map

Branch details → View Branch → Add Emp → View Emp → Place request

Consignment Report → Add Consignment → View Consignment

Optimized route → Find Optimized route

Feedback → View Feedback

Delivery → Add delivery → View delivery

Dispatches → Add dispatches → View dispatches

Receiver → Add receiver → View receiver

Id	shippername	shipperaddress	shipperPhonenumber	source	Material	Category	Totalweight	Receivername	Receiveraddress	Re
22	mek	No:24,Mariamman koil street,pillayarkuppam	9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	89
23	Jeeva	No:32,palar street ,anna nagar	9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	98
24	Ramesh	No:32,Green circle,Raja park	9098976856	Kaniyakumari	paper	Speed	1kg	divya	34,Anna nagar,Salai street	89
25	Bhargavi	No:76,phase street,gandhi nagar	8990976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25,Main street,green palar	90
26	Bablu	No:32,yash street	7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	90

View Branch:

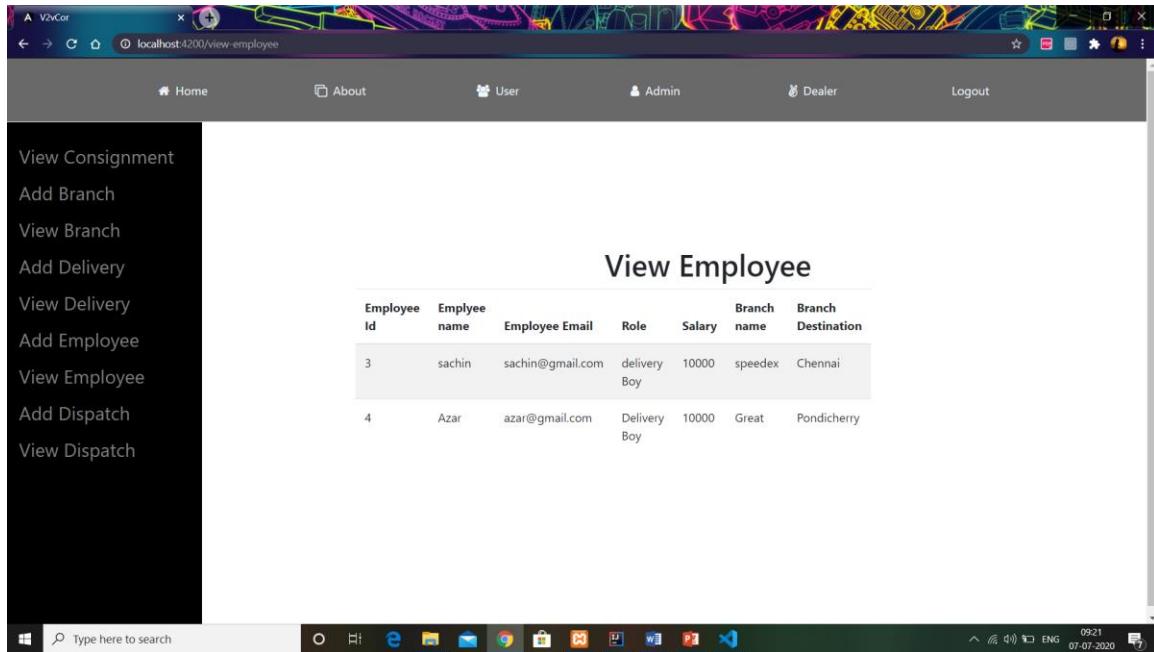
Name>

Branch Id	Branch name	Main Address
1	fastcor	Chennai
4	Speedex	Pondicherry
5	Great	Madurai
6	Fastcor	Kaniyakumari

Add Employee:

View Employee:

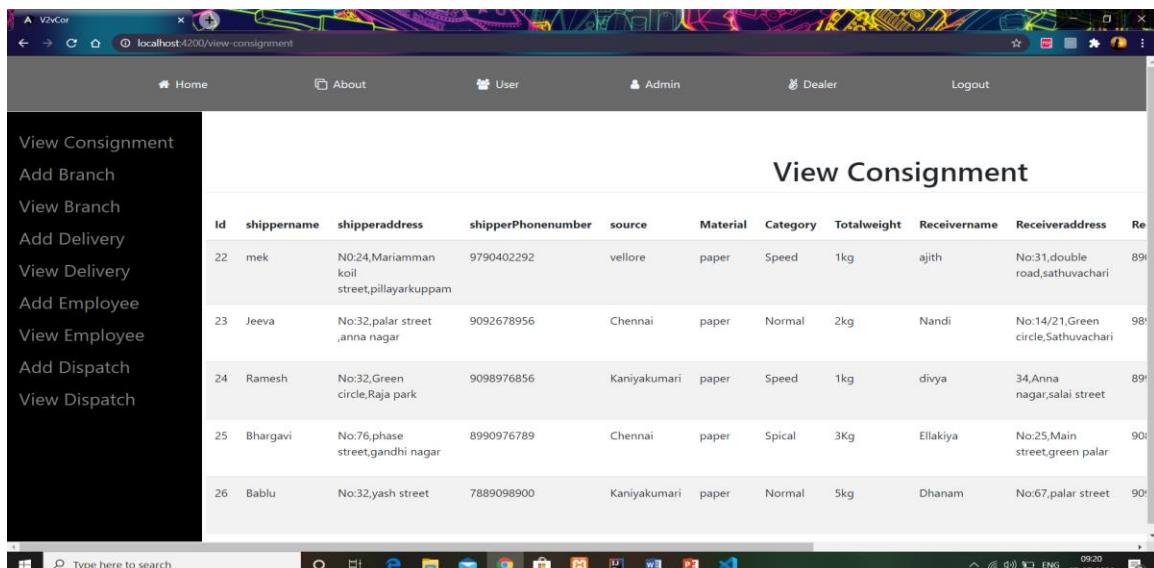
Name>



The screenshot shows a web application interface for viewing employees. The title bar reads "localhost:4200/view-employee". The top navigation bar includes links for Home, About, User, Admin, Dealer, and Logout. On the left, a sidebar menu lists various administrative tasks: View Consignment, Add Branch, View Branch, Add Delivery, View Delivery, Add Employee, View Employee, Add Dispatch, and View Dispatch. The main content area is titled "View Employee" and displays a table with the following data:

Employee Id	Employee name	Employee Email	Role	Salary	Branch name	Branch Destination
3	sachin	sachin@gmail.com	delivery Boy	10000	speedex	Chennai
4	Azar	azar@gmail.com	Delivery Boy	10000	Great	Pondicherry

View Consignment:



The screenshot shows a web application interface for viewing consignment details. The title bar reads "localhost:4200/view-consignment". The top navigation bar includes links for Home, About, User, Admin, Dealer, and Logout. On the left, a sidebar menu lists various administrative tasks: View Consignment, Add Branch, View Branch, Add Delivery, View Delivery, Add Employee, View Employee, Add Dispatch, and View Dispatch. The main content area is titled "View Consignment" and displays a table with the following data:

ID	shippername	shipperaddress	shipperPhonenumber	source	Material	Category	Totalweight	Receivername	Receiveraddress	Re
22	mek	No:24,Mariamman koil street,pillyarkuppam	9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	89
23	Jeeva	No:32,palar street ,anna nagar	9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	98
24	Ramesh	No:32,Green circle,Raja park	9098976856	Kaniyakumari	paper	Speed	1kg	divya	34.Anna nagar,salai street	89
25	Bhargavi	No:76,phase street,gandhi nagar	8990976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25,Main street,green palar	90
26	Bablu	No:32,yash street	7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	90

Find Optimized route:

Name>

The screenshot shows a web application interface with a dark sidebar on the left containing various navigation links:

- View Consignment
- Add Branch
- View Branch
- Add Delivery
- View Delivery
- Add Employee
- View Employee
- Add Dispatch
- View Dispatch
- Find Optimized Route

The main panel features a table with columns "Source" and "Destination". It lists four entries with "Find" buttons:

Source	Destination	
Chennai	Madurai	<button>Find</button>
Pondicherry	Chennai	<button>Find</button>
Vizhupuram	Vellore	<button>Find</button>
Chennai	Kanyakumari	<button>Find</button>

The screenshot shows a Google Maps search results page with the following details:

Search query: Chennai, Tamil Nadu to Madurai, Tamil Nadu

Route options shown:

- via Chennai - Theni Hwy/Chennai - Trichy Hwy/Chennai - Villupuram - Trichy - Kanyakumari Rd/Grand Southern Trunk Rd and NH38 (7 h 29 min, 465 km)
- Fastest route now, avoids road closures on NH38
⚠️ This route has tolls
- via Chennai - Villupuram - Trichy - Kanyakumari Rd and NH38 (8 h 12 min, 498 km)

Explore Madurai section:

- Groceries
- Hotels
- Gas stations
- Parking Lots
- More

View Feedback:

Name>

REVIEWS

divyaKarthiga
Name: test
divya

hii
Name: tes
hii

hii
Name: kar
hii

mom
Name: karthi
mom

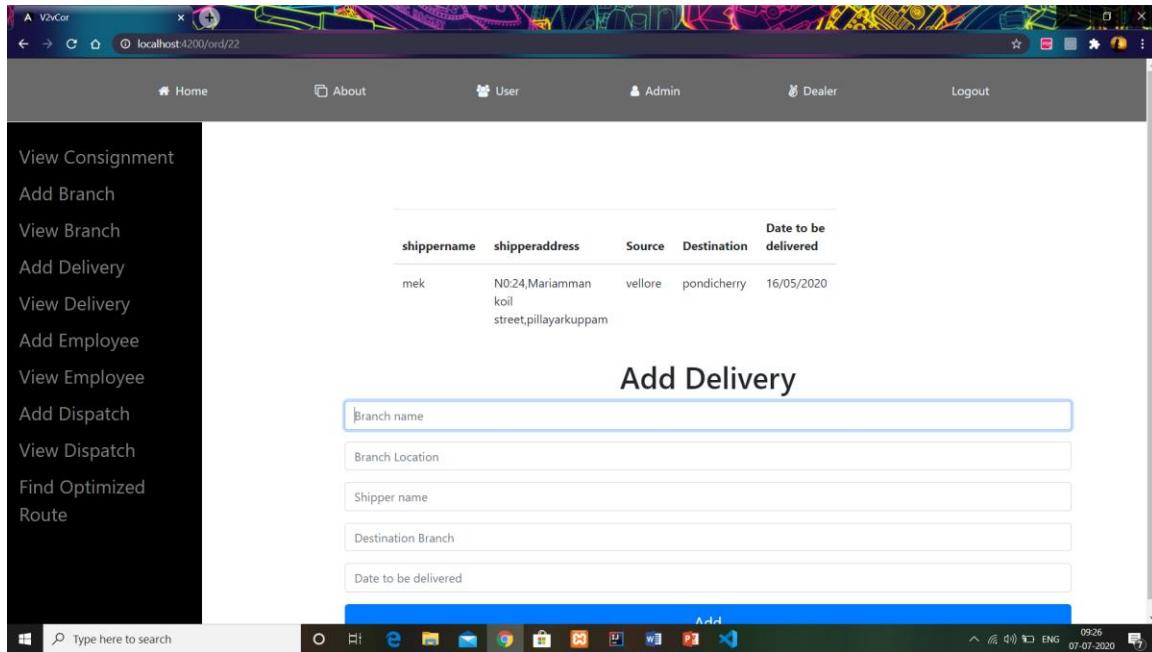
Very Nice

Add delivery:

View Consignment

shipperPhone number	source	Material	Category	Total weight	Receiver name	Receiver address	Receiver Phone number	Destination	Date to be delivered	Add Delivery	Add Dispatch
9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	16/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	22/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9098976856	Kaniyakumari	paper	Speed	1kg	divya	34,Anna nagar,salai street	8990976789	Chennai	23/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
8990976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25,Main street,green palar	9089097867	Vizhupuram	8/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	9090908978	po	17/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>

Name>



The screenshot shows a web application interface for managing deliveries. On the left, a sidebar lists various navigation options. The main content area displays a table with one row of data and a form below it for adding new entries.

shippername	shipperaddress	Source	Destination	Date to be delivered
mek	N0:24,Mariamman koil street,pillayarkuppam	vellore	pondicherry	16/05/2020

Add Delivery

Branch name:

Branch Location:

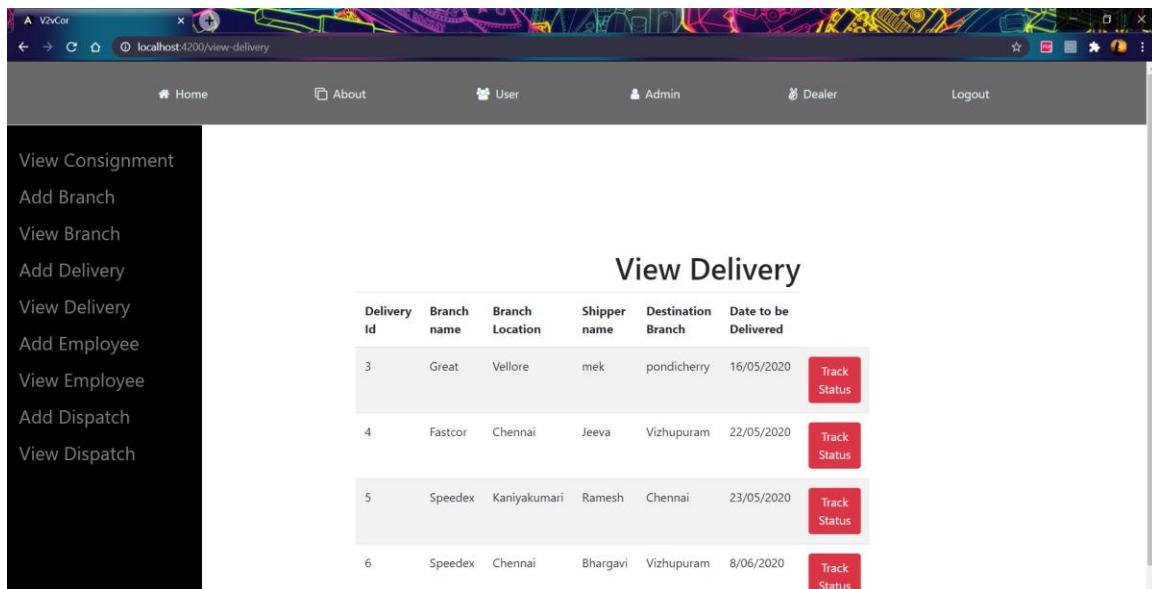
Shipper name:

Destination Branch:

Date to be delivered:

Add

View Delivery:

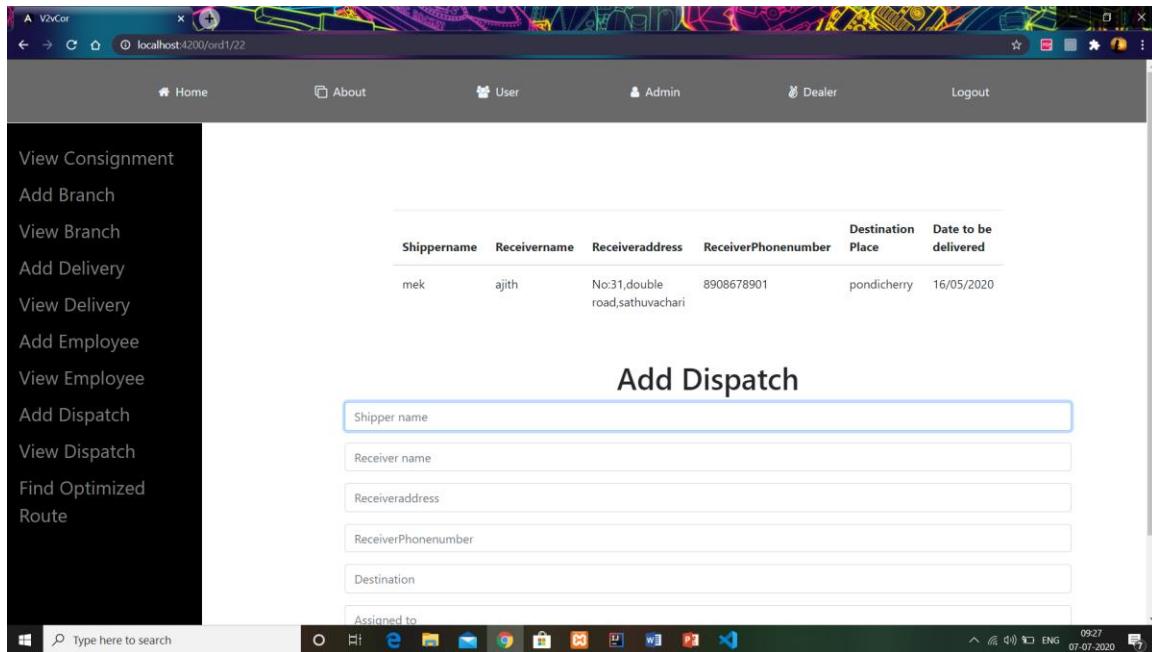


The screenshot shows a web application interface for viewing deliveries. The sidebar contains navigation links. The main area displays a table of delivery records with a 'Track Status' button next to each entry.

Delivery Id	Branch name	Branch Location	Shipper name	Destination Branch	Date to be Delivered	Action
3	Great	Vellore	mek	pondicherry	16/05/2020	Track Status
4	Fastcor	Chennai	Jeeva	Vizhupuram	22/05/2020	Track Status
5	Speedex	Kaniyakumari	Ramesh	Chennai	23/05/2020	Track Status
6	Speedex	Chennai	Bhargavi	Vizhupuram	8/06/2020	Track Status

Add dispatches:

Name>

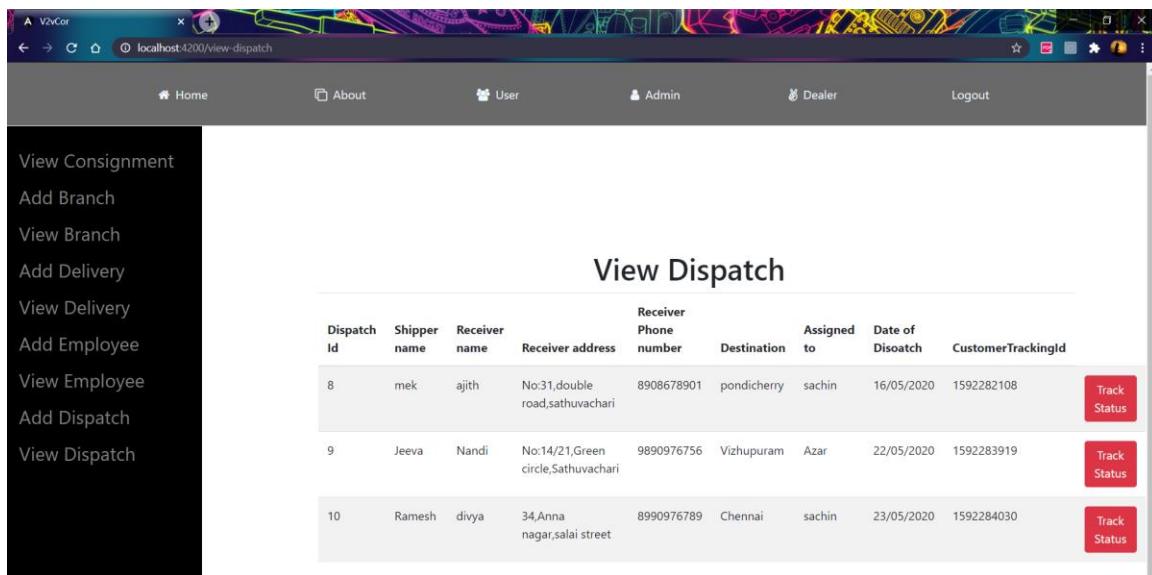


The screenshot shows a web application interface for managing consignment details. On the left, a sidebar menu lists various options: View Consignment, Add Branch, View Branch, Add Delivery, View Delivery, Add Employee, View Employee, Add Dispatch, View Dispatch, and Find Optimized Route. The main content area displays a table with one row of data:

Shippername	Receivername	Receiveraddress	ReceiverPhonenumber	Destination Place	Date to be delivered
mek	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	16/05/2020

Below the table, a form titled "Add Dispatch" is visible, containing fields for Shipper name, Receiver name, Receiver address, Receiver Phonenumber, Destination, and Assigned to. The status bar at the bottom indicates the date as 07-07-2020 and the time as 09:27.

View dispatches:



The screenshot shows a list of dispatches with their details and tracking links. The sidebar menu is identical to the previous screenshot. The main content area is titled "View Dispatch" and displays a table with three rows of data:

Dispatch Id	Shipper name	Receiver name	Receiver address	Receiver Phone number	Destination	Assigned to	Date of Dispatch	CustomerTrackingId	Action
8	mek	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	sachin	16/05/2020	1592282108	<button>Track Status</button>
9	Jeeva	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	Azar	22/05/2020	1592283919	<button>Track Status</button>
10	Ramesh	divya	34.Anna nagar,salai street	8990976789	Chennai	sachin	23/05/2020	1592284030	<button>Track Status</button>

Add receiver:

Name>

Employee name

Employee email

Role

Salary

BranchName

BranchLocation

Add

View Receiver:

Employee Id	Employee name	Employee Email	Role	Salary	Branch name	Branch Destination
3	sachin	sachin@gmail.com	delivery Boy	10000	speedex	Chennai
4	Azar	azar@gmail.com	Delivery Boy	10000	Great	Pondicherry

N. Admin Module:



A screenshot of an "ADMIN LOGIN" page. It features three input fields: "Username", "Password", and a "Login" button. The background is dark.



Navigation Map

Dealer Request → View Consignment

Branch → View branch

Deliver → View Delivery

Review → View Review

View Consignment

Name>

shipperPhonenumber	source	Material	Category	Totalweight	Receivername	Receiveraddress	ReceiverPhonenumber	Destination	Date to be delivered	Add Delivery	Add Dispatch
9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	16/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	22/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9098976856	Kaniyakumari	paper	Speed	1kg	divya	34,Anna nagar,salai street	8990976789	Chennai	23/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
89090976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25>Main street,green palar	9089097867	Vizhupuram	8/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	9090908978	po	17/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>

View reviews:

REVIEWS

divyaKarthiga
Name: test
divya

hii
Name: tes
hii

hii
Name: kar
hii

mom
Name: karthi
mom

Very Nice
Name: test

Name>

View branch:

Branch Id	Branch name	Main Address
1	fastcor	Chennai
4	Speedex	Pondicherry
5	Great	Madurai
6	Fastcor	Kaniyakumari

View Delivery

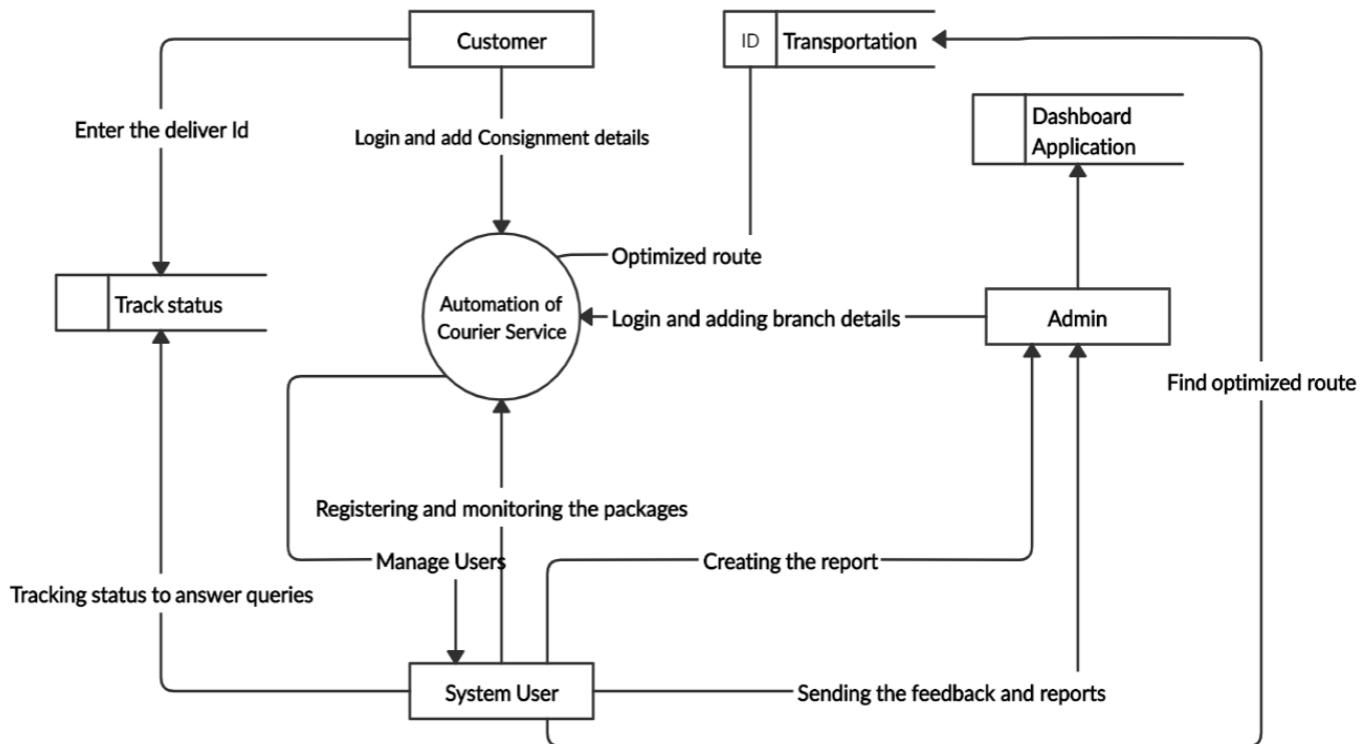
Delivery Id	Branch name	Branch Location	Shipper name	Destination Branch	Date to be Delivered	
3	Great	Vellore	mek	pondicherry	16/05/2020	Track Status
4	Fastcor	Chennai	Jeeva	Vizhupuram	22/05/2020	Track Status
5	Speedex	Kaniyakumari	Ramesh	Chennai	23/05/2020	Track Status
6	Speedex	Chennai	Bhargavi	Vizhupuram	8/06/2020	Track Status

4.2.4 Object Model/Data Flow Design

4.2.4.1 Interface Description

The process includes

- Customer
- Admin
- System User



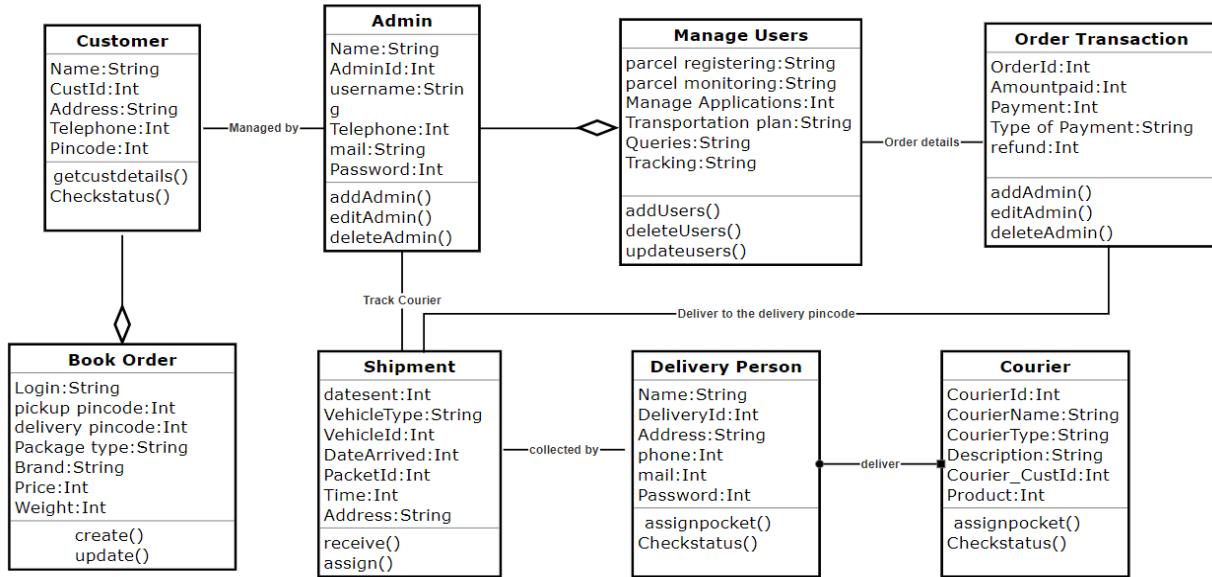
Function:

- Automation of Courier Service

Database/File:

- Dashboard Application
- Transportation planning
- Tracking the status

4.2.4.2 Class Design



Classes:

Customer class:

Manage all the operations of the customer

Admin class:

Manage all the operations of the admin

Order class:

Manage all the operations of the transactions

Shipment:

Manage all the operations of shipment

Delivery class:

Manage all the operations of the delivery

Courier class:

Manage all the operations of the courier

Attributes:**Customer Attributes:**

Name,CustId,Telephone.pincode,Address

Admin Attributes:

Name,adminId,username,telephone,mail,password

Order Attributes:

OrderId,amount paid,type of payment,refund

Shipment Attributes:

Vehicletype,VehicleId,packetId,time

Delivery Attributes:

Name,deliveryId,address,mail,password

Courier Attributes:

CourierId,Couriername,Couriertype

Methods:

Customer Methods:getcustdetails(),checkstatus()

Admin Methods:addAdmin(),editAdmin(),deleteAdmin()

Order Methods:addOrder(),deleteOrder().

Shipment Methods:receive(),assign()

Delivery Methods:assignpocket(),checkstatus()

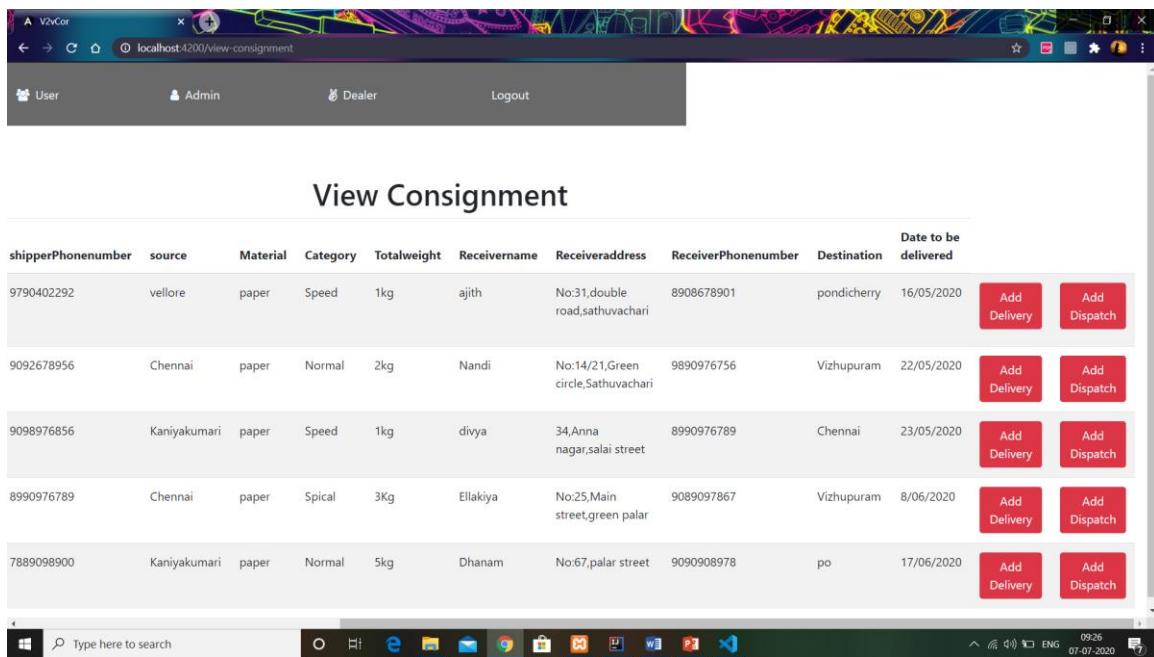
Courier Methods: assignpocket(),checkstatus()

5 Detailed Design for Module:

The various modules are:

- Parcel Registering and monitoring Module
- Parcels management Module
- Transportation planning Module
- Dashboard Application
- Consumer Parcel Tracking Module
- Parcel Location Data Capture Module
- Reporting Module

Parcel Registering and monitoring Module:



shipperPhone number	source	Material	Category	Total weight	Receiver name	Receiver address	Receiver Phone number	Destination	Date to be delivered	Add Delivery	Add Dispatch
9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	16/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	22/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9098976856	Kaniyakumari	paper	Speed	1kg	divya	34,Anna nagar,Salai street	8990976789	Chennai	23/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
8990976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25,Main street,green palar	9089097867	Vizhupuram	8/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	9090908978	po	17/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>

Parcels Management module:

Name>

The screenshot shows a web application interface with a dark sidebar on the left containing various navigation links:

- View Consignment
- Add Branch
- View Branch
- Add Delivery
- View Delivery
- Add Employee
- View Employee
- Add Dispatch
- View Dispatch
- Find Optimized Route

The main panel features a table titled "Source" and "Destination" with four rows of data:

Source	Destination	
Chennai	Madurai	<button>Find</button>
Pondicherry	Chennai	<button>Find</button>
Vizhupuram	Vellore	<button>Find</button>
Chennai	Kanyakumari	<button>Find</button>

The screenshot shows a Google Maps search results page with the following details:

Search query: Chennai, Tamil Nadu to Madurai, Tamil Nadu

Route options shown:

- via Chennai - Theni Hwy/Chennai - Trichy Hwy/Chennai - Villupuram - Trichy - Kanyakumari Rd/Grand Southern Trunk Rd and NH38 (7 h 29 min, 465 km)
- Fastest route now, avoids road closures on NH38
⚠️ This route has tolls
- via Chennai - Villupuram - Trichy - Kanyakumari Rd and NH38 (8 h 12 min, 498 km)

Explore Madurai section:

- Groceries
- Hotels
- Gas stations
- Parking Lots
- More

Transportation planning Module:

Name>

The screenshot shows a web browser window with a dark-themed sidebar on the left and a light-themed main content area. The sidebar contains a list of navigation links:

- View Consignment
- Add Branch
- View Branch
- Add Delivery
- View Delivery
- Add Employee
- View Employee
- Add Dispatch
- View Dispatch
- Find Optimized Route

The main content area has a header with links: Home, About, User, Admin, Dealer, and Logout. Below the header is a table titled "Source" and "Destination" with four rows of data. Each row has a "Find" button to its right.

Source	Destination	
Chennai	Madurai	Find
Pondicherry	Chennai	Find
Vizhupuram	Vellore	Find
Chennai	Kaniyakumari	Find

Dashboard Application:

- **Parcel details:**

Name>

shipperPhonenumber	source	Material	Category	Totalweight	Receivername	Receiveraddress	ReceiverPhonenumber	Destination	Date to be delivered	Add Delivery	Add Dispatch
9790402292	vellore	paper	Speed	1kg	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	16/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9092678956	Chennai	paper	Normal	2kg	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	22/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
9098976856	Kaniyakumari	paper	Speed	1kg	divya	34,Anna nagar,salai street	8990976789	Chennai	23/05/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
8990976789	Chennai	paper	Spical	3Kg	Ellakiya	No:25,Main street,green palar	9089097867	Vizhupuram	8/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>
7889098900	Kaniyakumari	paper	Normal	5kg	Dhanam	No:67,palar street	9090908978	po	17/06/2020	<button>Add Delivery</button>	<button>Add Dispatch</button>

• View dispatches:

Dispatch Id	Shipper name	Receiver name	Receiver address	Receiver Phone number	Destination	Assigned to	Date of Dispatch	CustomerTrackingId	Track Status
8	mek	ajith	No:31,double road,sathuvachari	8908678901	pondicherry	sachin	16/05/2020	1592282108	<button>Track Status</button>
9	Jeeva	Nandi	No:14/21,Green circle,Sathuvachari	9890976756	Vizhupuram	Azar	22/05/2020	1592283919	<button>Track Status</button>
10	Ramesh	divya	34,Anna nagar,salai street	8990976789	Chennai	sachin	23/05/2020	1592284030	<button>Track Status</button>

• View Receiver:

Name>

Employee Id	Employee name	Employee Email	Role	Salary	Branch name	Branch Destination
3	sachin	sachin@gmail.com	delivery Boy	10000	speedex	Chennai
4	Azar	azar@gmail.com	Delivery Boy	10000	Great	Pondicherry

• View Feedback

REVIEWS

divyaKarthiga
Name: test
divya

hii
Name: tes
hii

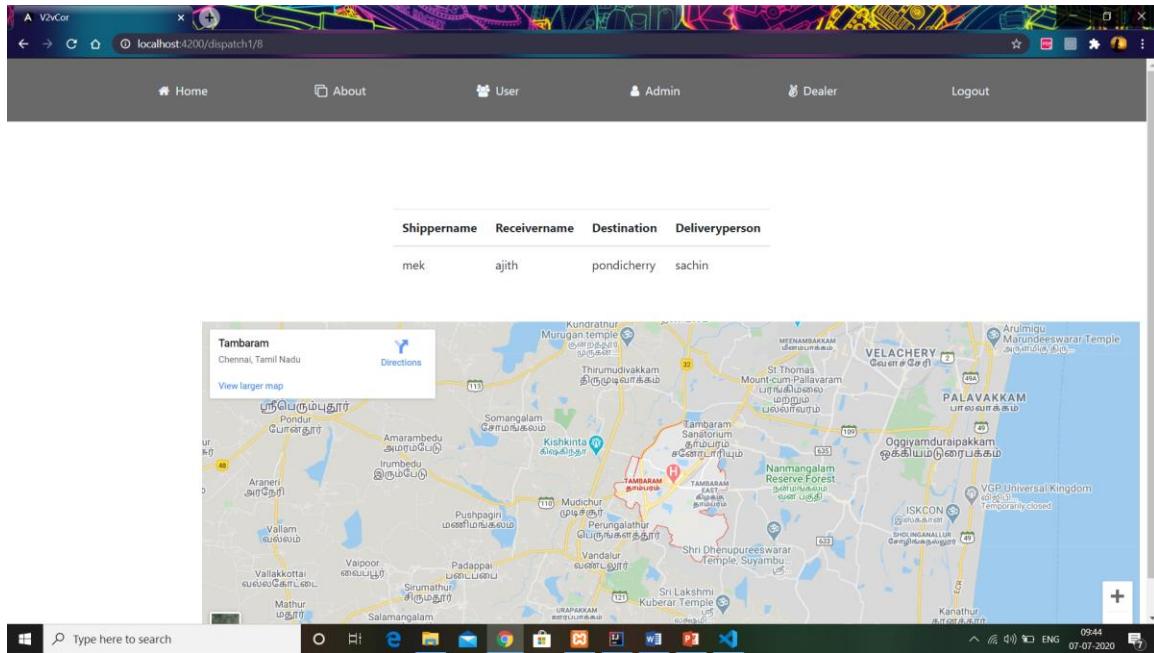
hii
Name: kar
hii

mom
Name: karthi
mom

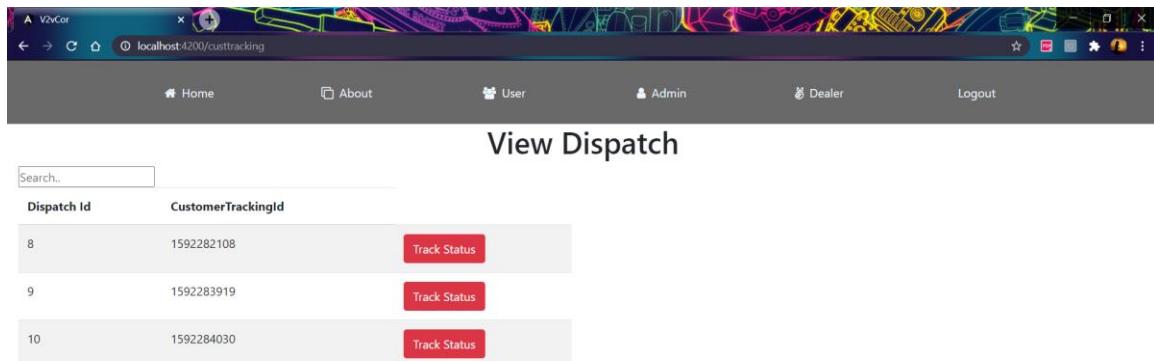
Very Nice
Name: test

Name>

Consumer Parcel Tracking Module:

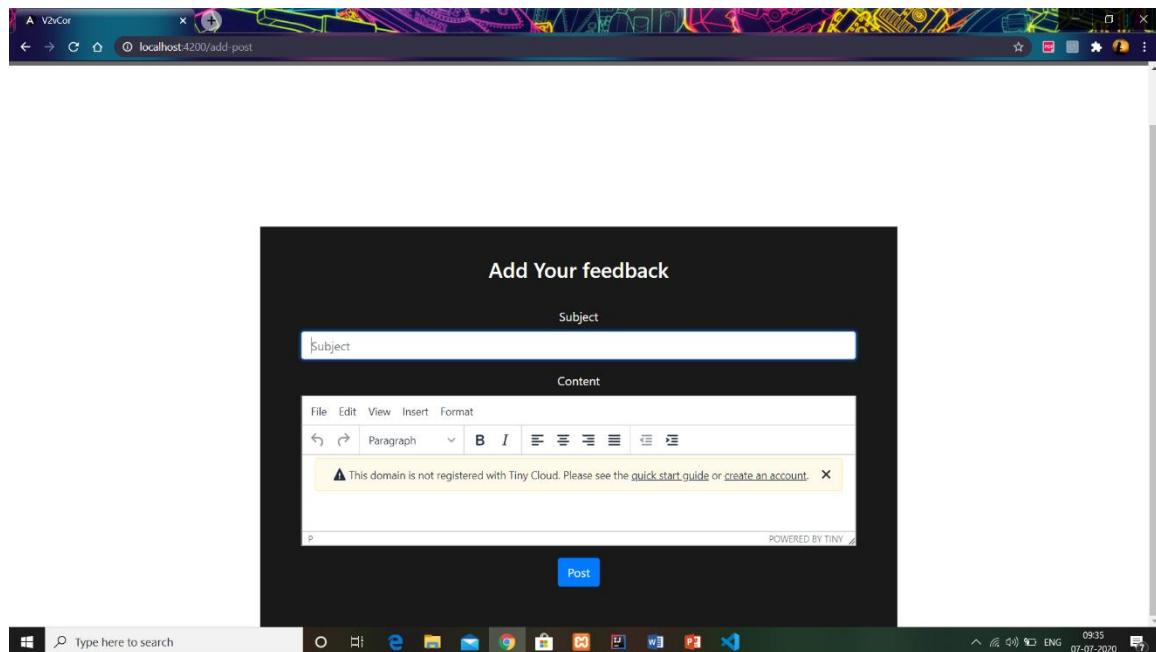


Parcel Location and data capture module:



Reporting Module:

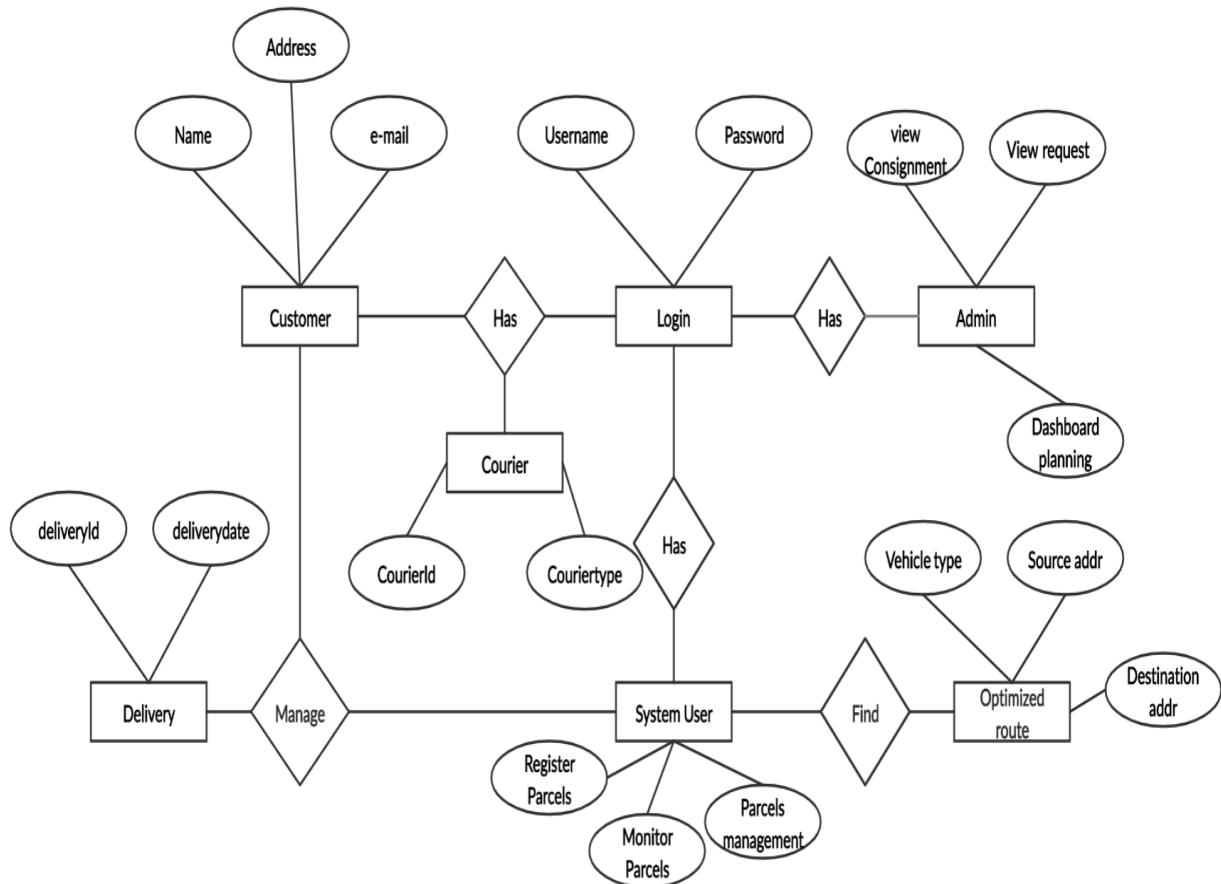
Name>



6 Database Design

Models	Tools
Database Entity Relationship Diagrams	Creately

6.1 Entity Relationship Diagrams

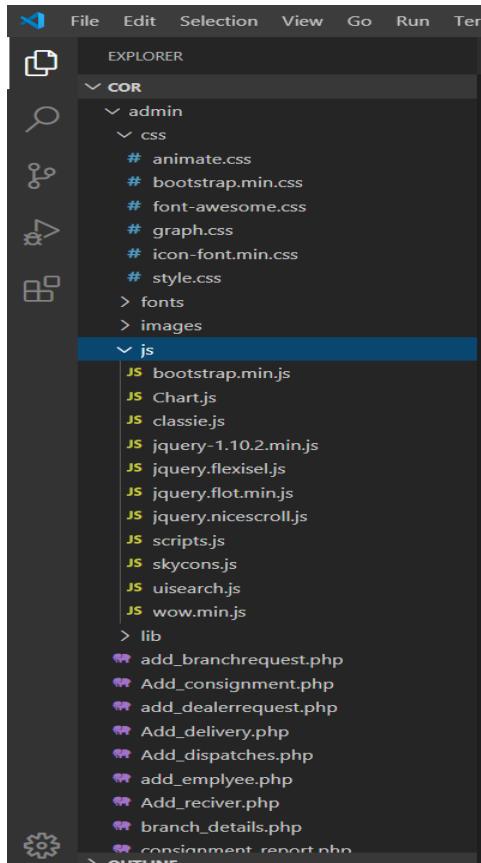


4000/ 1

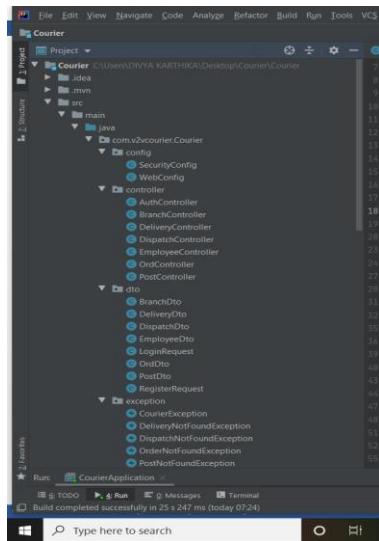
7 Packaging/Folder Structure and System Artifacts

PHP

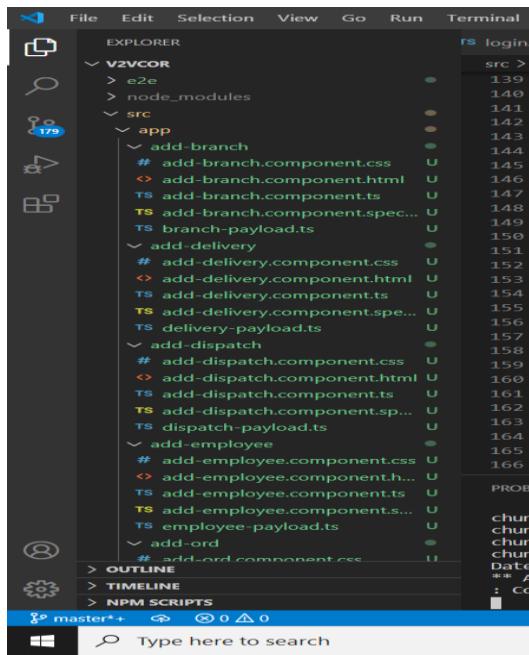
Name>



Spring Boot



Angularjs



8 Core Technical Services Design

Software Used: (By using PHP)

FRONT END TOOLS	<i>Bootstrap</i>
BACK END TOOLS	<i>PHP, MySQL</i>
MARKUP LANGUAGES	<i>HTML5</i>
SCRIPTING LANGUAGES	<i>Jquery,</i>
IDE	<i>Visual Studio Code</i>
REQUIREMENTS	<i>Xampp Server</i>

Software Used: (spring boot)

FRONT END TOOLS	<i>Bootstrap, Angularjs</i>
BACK END TOOLS	<i>Spring boot,MySQL, SpringSecurity</i>
MARKUP LANGUAGES	<i>HTML5</i>
SCRIPTING LANGUAGES	<i>Jquery, JavaScript</i>
IDE	<i>Visual Studio Code, IntelliJ</i>
REQUIREMENTS	<i>Xampp Server</i>

8.1 Persistence

Usage patterns

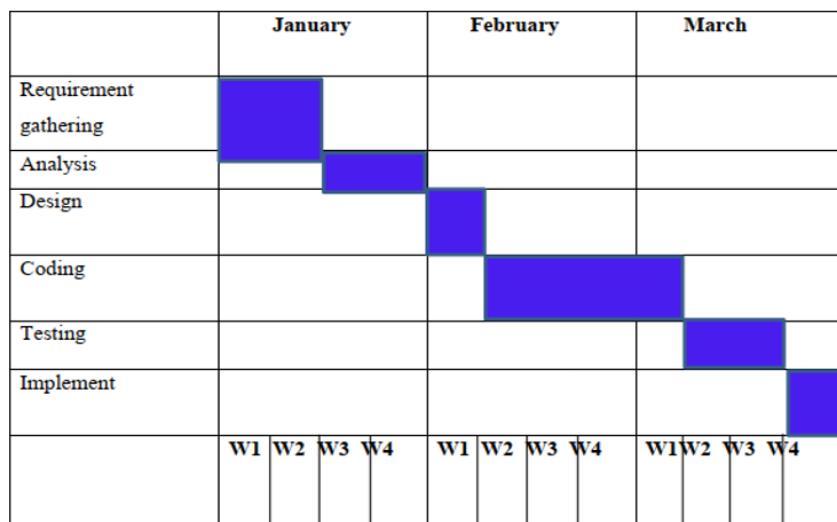
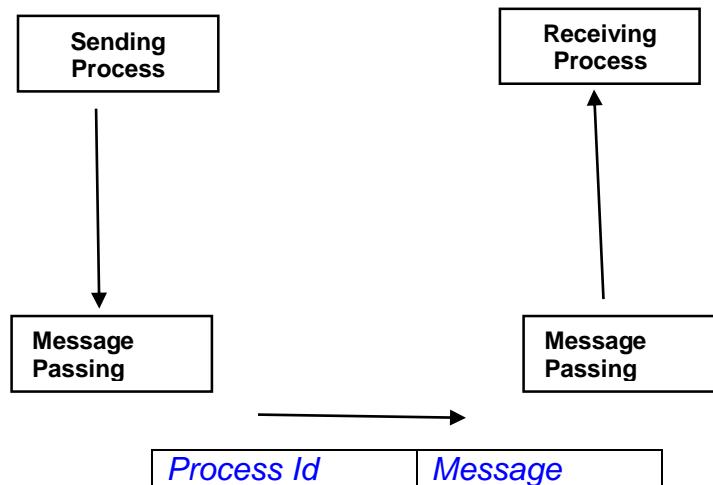


Table 3.1 Gantt chart

8.2 Inter-process Communication



8.3 Authentication and Authorization

This application makes use of a various software for secure authentication and authorization.

JSON Web Token

Password Encoder

8.4 Error Handling

[This sub-section captures the detailed design and usage patterns of the error handling services for the application.]

8.5 Logging

[This sub-section captures the detailed design and usage patterns of the logging framework for the application.]

8.6 Transaction Management

[This sub-section captures the detailed design and usage patterns of the Transaction Management service for the application.]

8.7 Other Applicable Technical Services

[This sub-section captures the detailed design and usage patterns of the other core technical services to be handled by the system such as the installation mechanism, failure prevention, fault tolerance, caching design, internationalization, validation framework, client and server initialization, error handling, etc.]

9 Non Functional Requirements

Appendix

[Presents information that supplements the design specification.]

1. Design Metrics to be Used

[A description of all design metrics to be used during the design activity is listed here.]

2. Supplementary Information

[Provide as required.]

3. DQI – Design Quality Index Checklist

This checklist shall be used to perform self-review as a reference while preparing software design.



DQI-Design Quality
Index Checklist-1.00.