

EduBridge



A Project Report

on

Vehicle Parking Management System

By

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B.Tech

Batch : 2020-5345

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Introduction

Parking management system for managing the records of the incoming and outgoing vehicles in a parking house .

It's an easy for Admin to retrieve the data if the vehicle has been visited through number he can get the data.

Now days in many public places such as malls, multiplex system, hospitals, offices, market areas there is a crucial problem of vehicle parking. The vehicle parking area has many lanes for car parking. So to park a vehicle one has to look for all the lanes. Moreover this involves a lot of manual labour and investment. Instead of vehicle caught in towing the vehicle can park on safe and security with low coast.

Parking control system has been generated in such a way that it is filled with many secure devices such as parking control gates, toll gates, time and attendance machine, vehicle counting system etc. these features are hereby very necessary nowadays to secure your car and also to evaluate the fee structure for every vehicles entry and exit.

The objective of project is to build a Vehicle Parking Management system that enables the time management and control of vehicles using number plate recognition. The system that will track the entry and exit of vehicles, maintain a listing of vehicles within the parking lot, and determine if the parking lot is full or not. It will determine the coast of per vehicle according to their time consumption.

I have developed this Application in **Java, JSP and My SQL**. It is a web based project so I have used **HTML, CSS**.

Software Requirements

Front end : **Java/J2EE** technologies (JSP) ,HTML, CSS.

Back end : MY SQL workbench 5.6CE.

Server : Apache Tomcat v7.0. IDE : Eclipse neon for
Java EE Developers.

Browser : Best result in Google Chrome.

Operating System : Window 10.

Data Dictionary

Admin page :

- Create database vpmsdb;
- CREATE TABLE `tbladmin` (`ID` int NOT NULL AUTO_INCREMENT, `AdminName` varchar(120) DEFAULT NULL, `UserName` varchar(120) DEFAULT NULL, `MobileNumber` bigint DEFAULT NULL, `Email` varchar(200) DEFAULT NULL, `Password` varchar(120) DEFAULT NULL, `adminregdate` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP, PRIMARY KEY (`ID`)) ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=latin1;

Vehicle Category :

- Create database vpmsdb;
- CREATE TABLE `tblcategory` (`ID` int NOT NULL AUTO_INCREMENT, `VehicleCat` varchar(120) DEFAULT NULL, `CreationDate` timestamp NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (`ID`)) ENGINE=InnoDB AUTO_INCREMENT=6 DEFAULT CHARSET=latin1;

Parking Seat Capacity :

- Create database vpmsdb;
- CREATE TABLE `tblparkingseatcapacity` (`parking_seat` int DEFAULT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 ;

Registering a user :

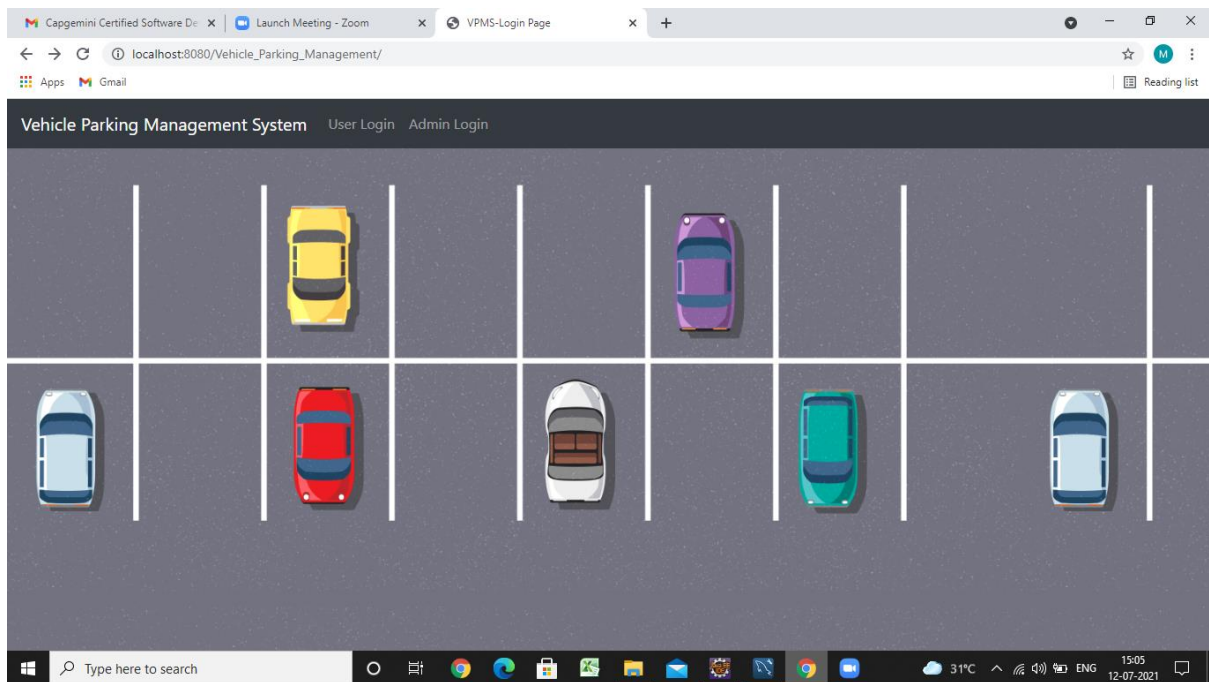
- Create database vpmsdb;
- CREATE TABLE `tbluser` (`id` int NOT NULL AUTO_INCREMENT, `fullname` varchar(100) DEFAULT NULL, `mobile` varchar(100) DEFAULT NULL, `email` varchar(100) DEFAULT NULL, `address` varchar(400) DEFAULT NULL, `uname` varchar(45) DEFAULT NULL, `password` varchar(100) DEFAULT NULL, PRIMARY KEY (`id`)) ENGINE=InnoDB AUTO_INCREMENT=7 DEFAULT CHARSET=utf8mb4;

Booking a parking slot :

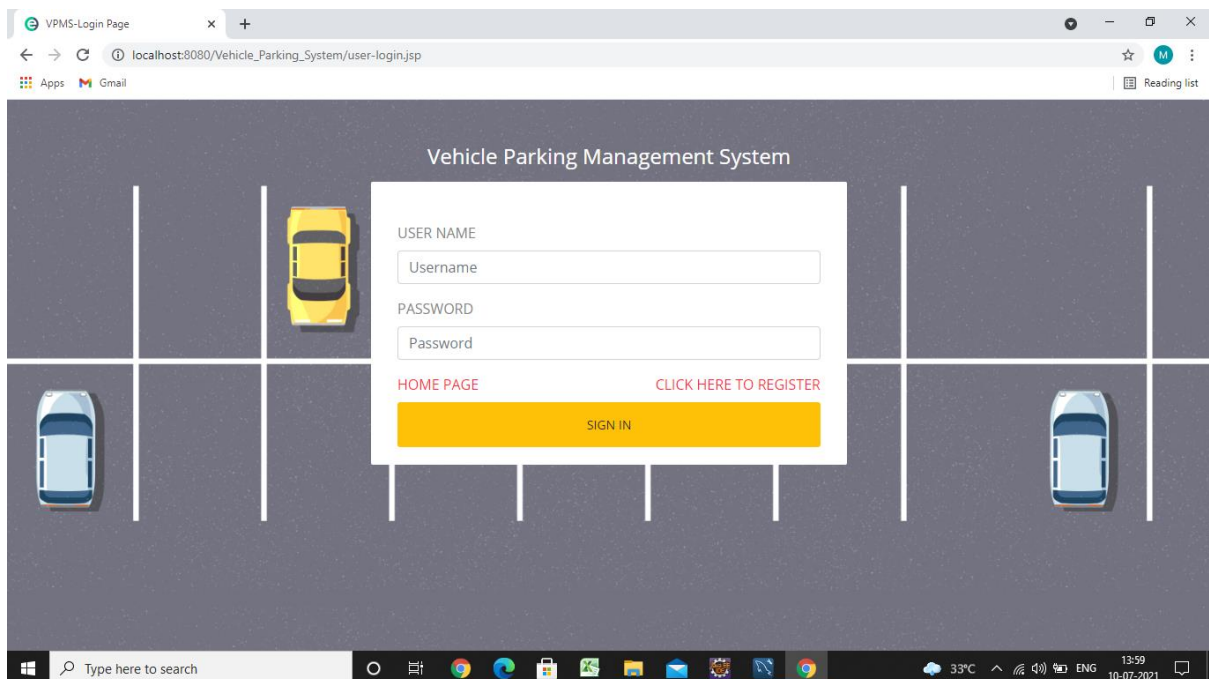
- Create database vpmsdb;
- CREATE TABLE `tblvehicle` (`ID` int NOT NULL AUTO_INCREMENT, `ParkingNumber` varchar(120) DEFAULT NULL, `VehicleCategory` varchar(120) NOT NULL, `VehicleCompanyname` varchar(120) DEFAULT NULL, `RegistrationNumber` varchar(120) DEFAULT NULL, `OwnerName` varchar(120) DEFAULT NULL, `OwnerContactNumber` bigint DEFAULT NULL, `InTime` timestamp NULL DEFAULT CURRENT_TIMESTAMP, `OutTime` timestamp NULL DEFAULT NULL ON UPDATE CURRENT_TIMESTAMP, `parkingcharge` varchar(120) DEFAULT NULL, `remark` mediumtext, `status` varchar(5) DEFAULT NULL, PRIMARY KEY (`ID`)) ENGINE=InnoDB AUTO_INCREMENT=11 DEFAULT CHARSET=latin1;

ScreenShots

Home Page :



User Log-in :



Assigning a Wrong Password :

The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/user-login.jsp`. The page title is "Vehicle Parking Management System". The background features a dark gray parking lot with white lines and several cars (yellow, blue, and green) parked. A white login form is centered on the page. The form contains the following elements:

- A message: "Invalid credential, try again."
- A "USER NAME" label and a text input field with "Username" entered.
- A "PASSWORD" label and a text input field with "Password" entered.
- A "HOME PAGE" link in red text.
- A "CLICK HERE TO REGISTER" link in red text.
- A yellow "SIGN IN" button.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 31°C, signal strength, and the date/time: 15:08, 12-07-2021.

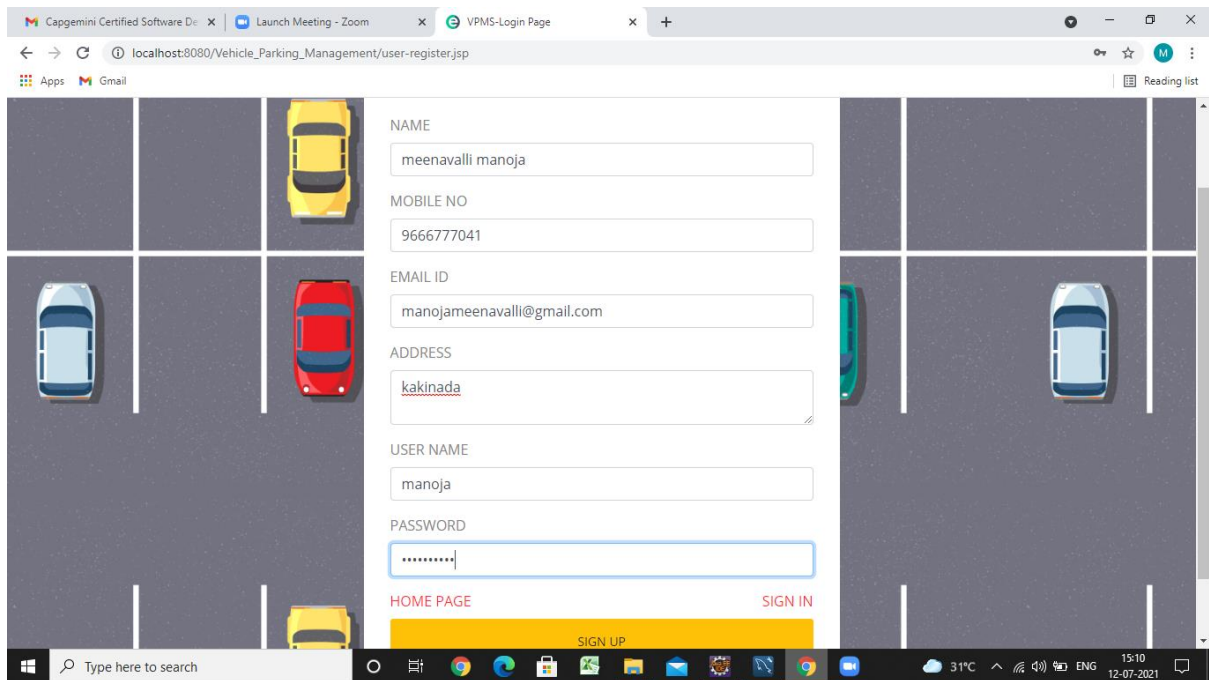
Registration form :

The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/user-register.jsp`. The page title is "Vehicle Parking Management System". The background features a dark gray parking lot with white lines and several cars (yellow, blue, and green) parked. A white registration form is centered on the page. The form contains the following elements:

- A "NAME" label and a text input field with "Full Name" entered.
- A "MOBILE NO" label and a text input field with "Mobile No" entered.
- A "EMAIL ID" label and a text input field with "Email Id" entered.
- A "ADDRESS" label and a text input field with "Address" entered.
- A "USER NAME" label and a text input field with "Username" entered.
- A "PASSWORD" label and a text input field with "Password" entered.
- A "HOME PAGE" link in red text.
- A "SIGN IN" link in red text.
- A yellow "SIGN UP" button.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 31°C, signal strength, and the date/time: 15:08, 12-07-2021.

Registering with Data :



Capgemini Certified Software De x Launch Meeting - Zoom x VPMS-Login Page x +

localhost:8080/Vehicle_Parking_Management/user-register.jsp

Apps Gmail

NAME
meenavalli manoja

MOBILE NO
9666777041

EMAIL ID
manojameenavalli@gmail.com

ADDRESS
kakinada

USER NAME
manoja

PASSWORD

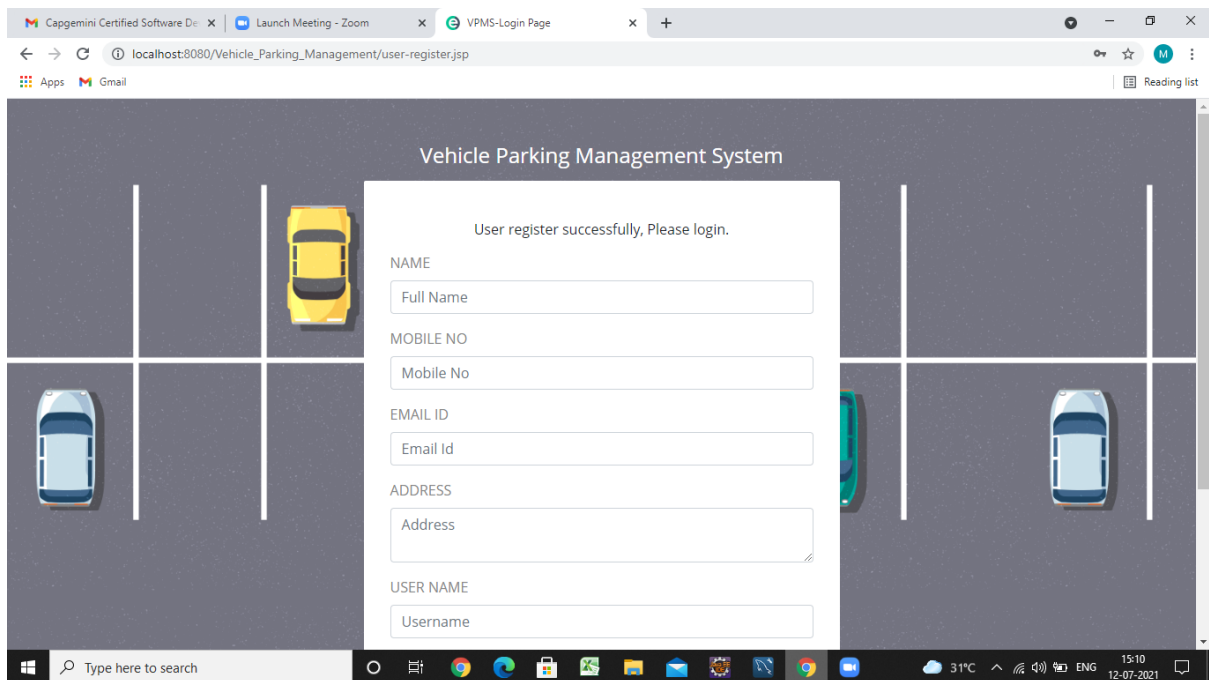
HOME PAGE SIGN IN

SIGN UP

Type here to search

31°C 15:10 12-07-2021

Registration Successful Page :



Capgemini Certified Software De x Launch Meeting - Zoom x VPMS-Login Page x +

localhost:8080/Vehicle_Parking_Management/user-register.jsp

Apps Gmail

Vehicle Parking Management System

User register successfully, Please login.

NAME
Full Name

MOBILE NO
Mobile No

EMAIL ID
Email Id

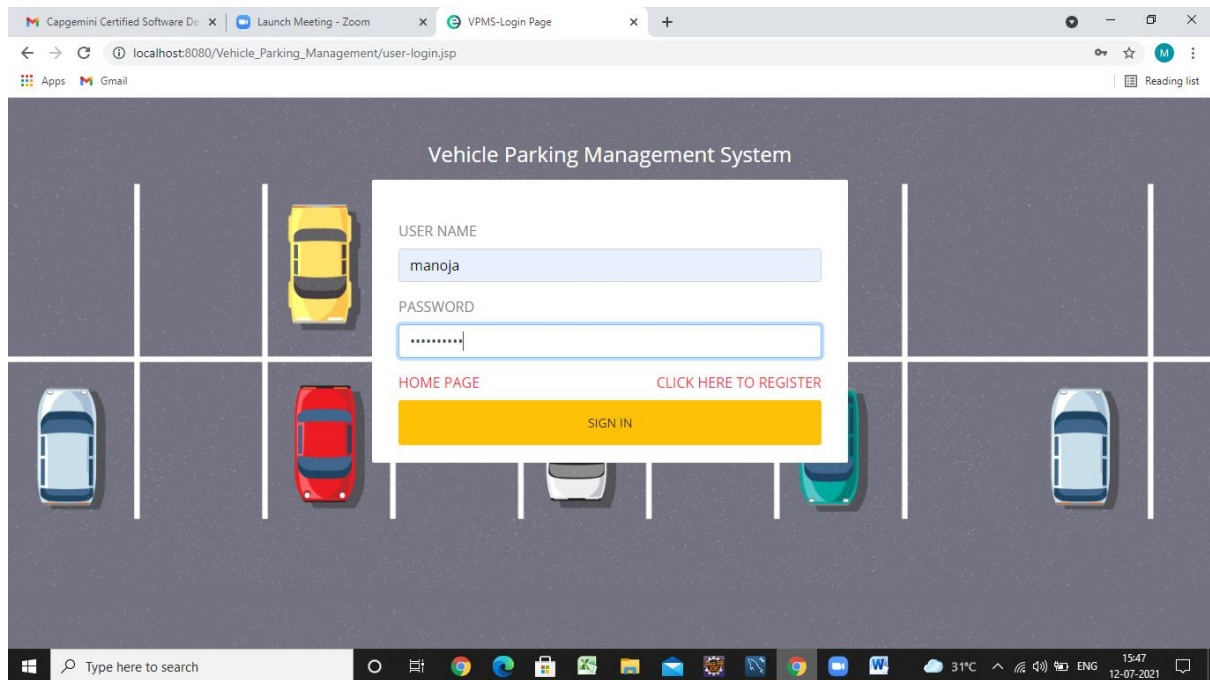
ADDRESS
Address

USER NAME
Username

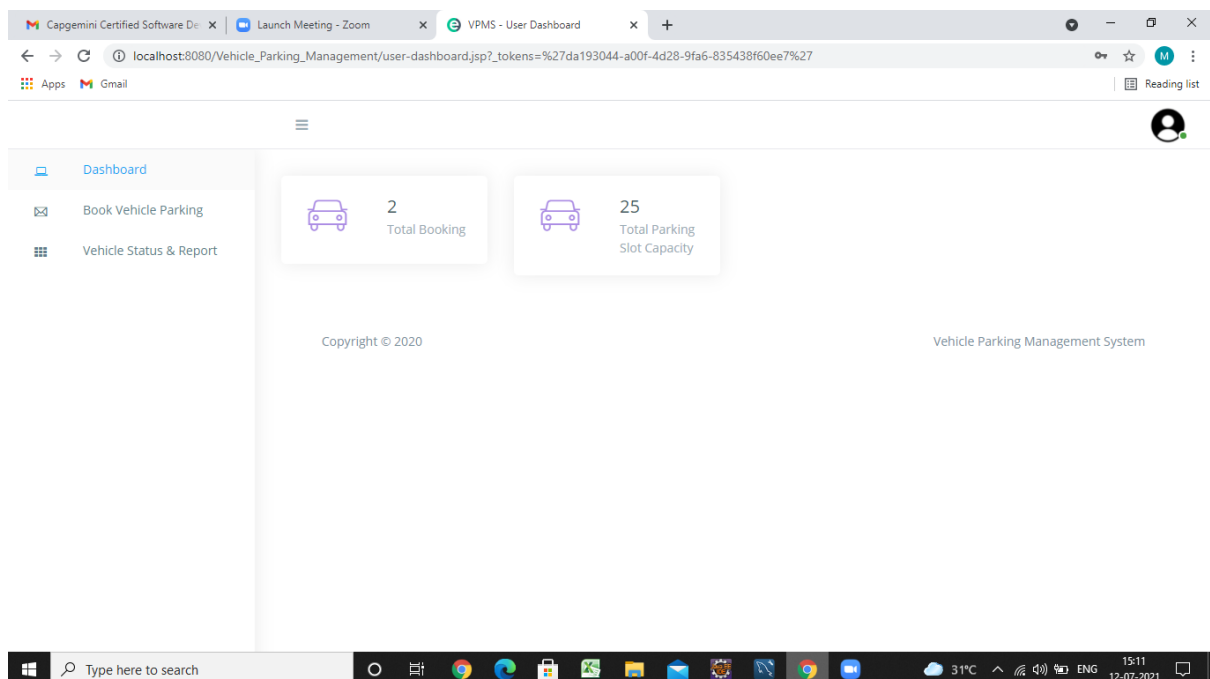
Type here to search

31°C 15:10 12-07-2021

Sign-in page :



User Dashboard :



Slot to Add a Vehicle for Parking :

Dashboard / Vehicle / Add Vehicle

Add Vehicle

Select

Vehicle Company

Registration Number

Owner Name

Owner Contact Number

Adding Data To Book a Slot :

Dashboard / Vehicle / Add Vehicle

Add Vehicle

Select

Vehicle Company

Registration Number

Owner Name

Owner Contact Number

Vehicle Status :

Dashboard / Manage Vehicle / Manage Incoming Vehicle

Manage Incoming Vehicle

S.NO	Parking Number	Owner Name	Vehicle Reg Number	Action
13	1092785	meenavalli manoja	AP-1013	View Print

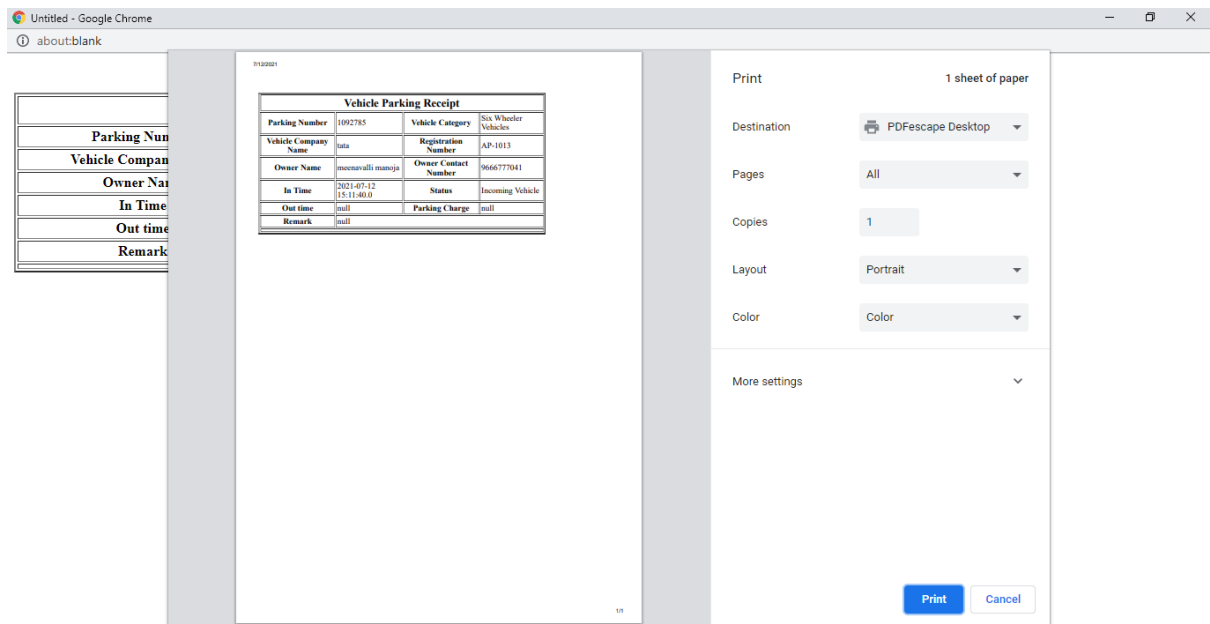
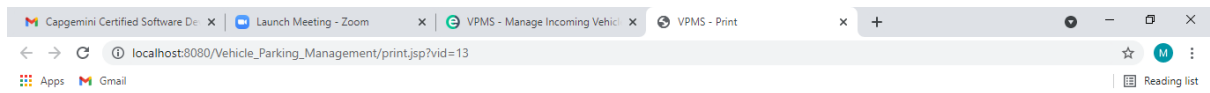
Copyright © 2020 Vehicle Parking Management System

To View Vehicle Status :

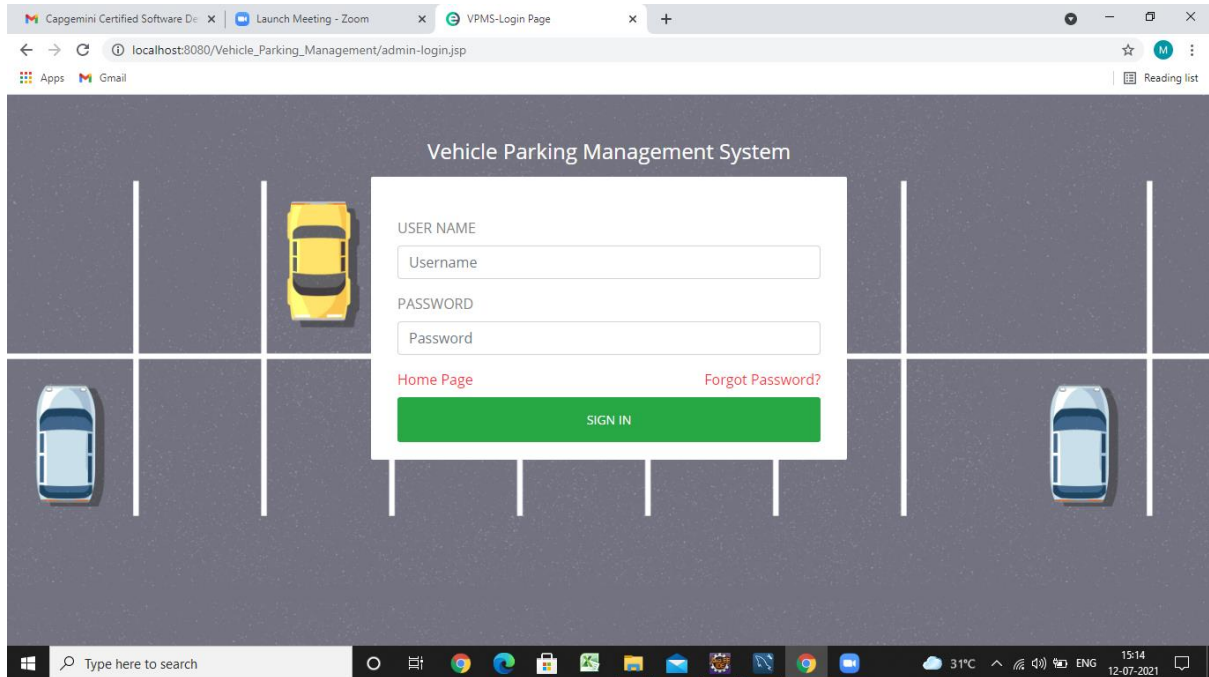
Dashboard / Manage Vehicle / View User Incoming View Details

Parking Number	1092785
Vehicle Category	Six Wheeler Vehicles
Vehicle Company Name	tata
Registration Number	AP-1013
Owner Name	meenavalli manoja
Owner Contact Number	9666777041
In Time	2021-07-12 15:11:40.0
Out Time	
Status	Vehicle In

To Print the Data :



Log-in to Admin Page :

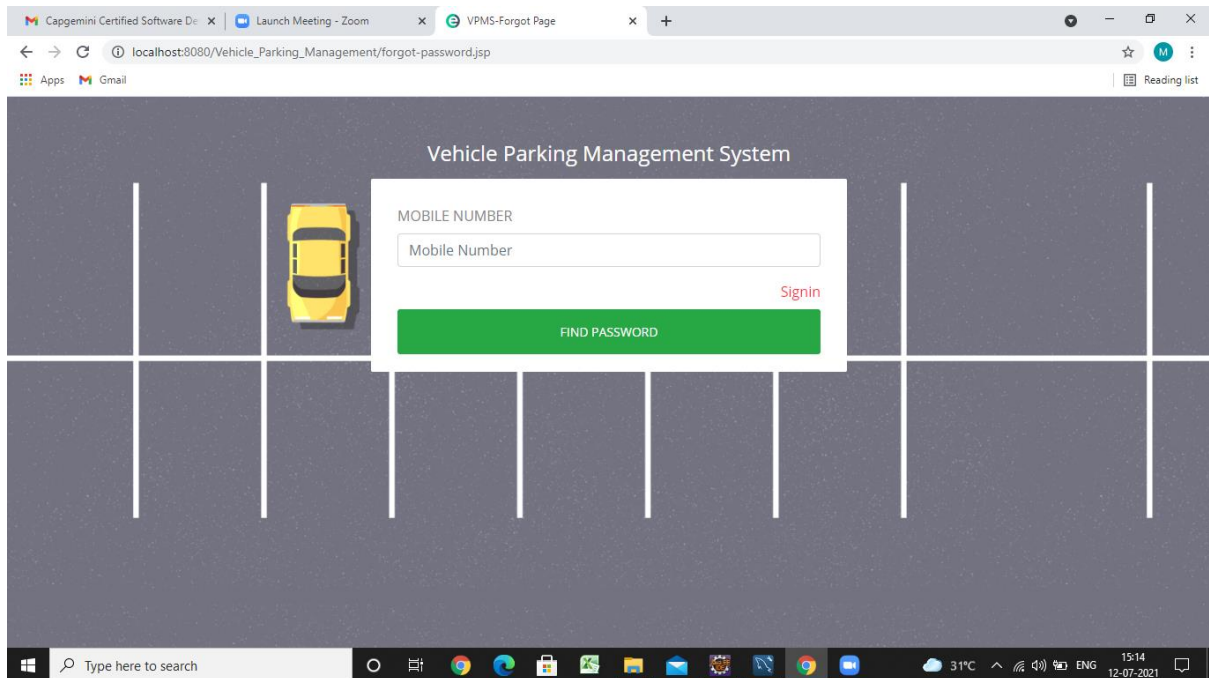


The screenshot shows a web browser window with the title "Vehicle Parking Management System". The URL bar displays "localhost:8080/Vehicle_Parking_Management/admin-login.jsp". The page features a dark gray background with a grid of parking spaces. A yellow car is parked in the top center space, and two blue cars are parked in the bottom left and bottom right spaces. A white login form is centered on the page. The form contains the following elements:

- USER NAME**: A text input field with the placeholder "Username".
- PASSWORD**: A text input field with the placeholder "Password".
- Home Page**: A red text link.
- Forgot Password?**: A red text link.
- SIGN IN**: A green button.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 31°C, signal strength, and the date and time: 15:14, 12-07-2021.

Forgot Password :

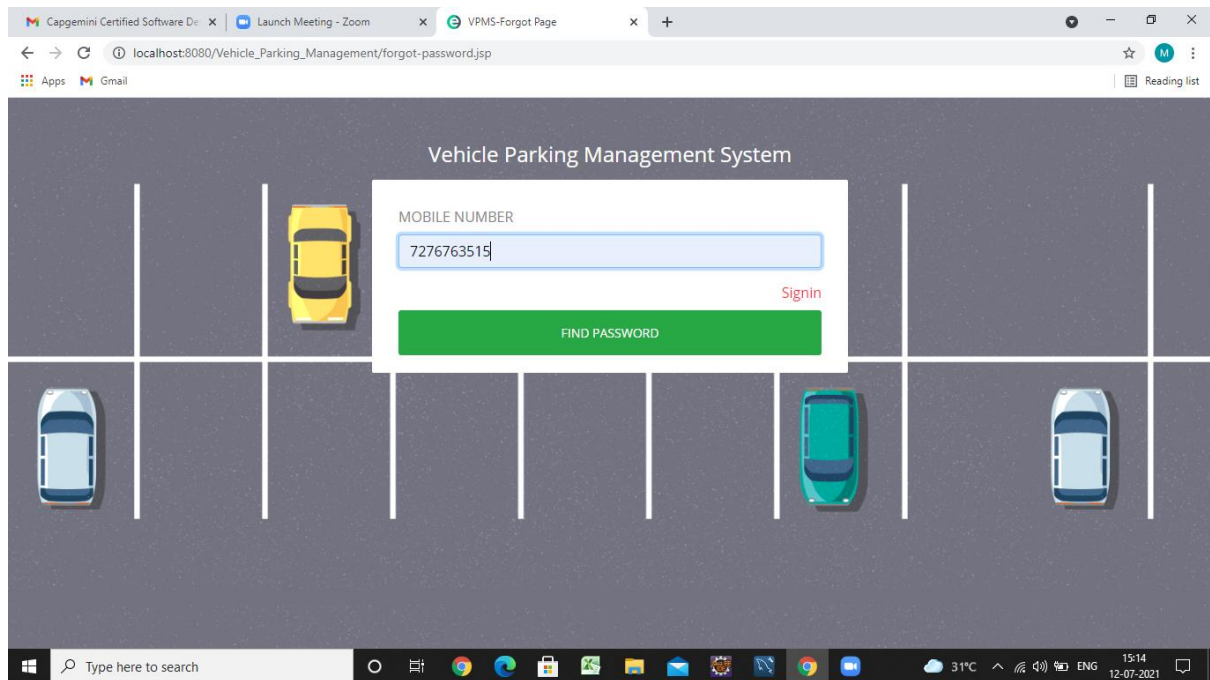


The screenshot shows a web browser window with the title "Vehicle Parking Management System". The URL bar displays "localhost:8080/Vehicle_Parking_Management/forgot-password.jsp". The page features a dark gray background with a grid of parking spaces. A yellow car is parked in the top center space. A white form is centered on the page. The form contains the following elements:

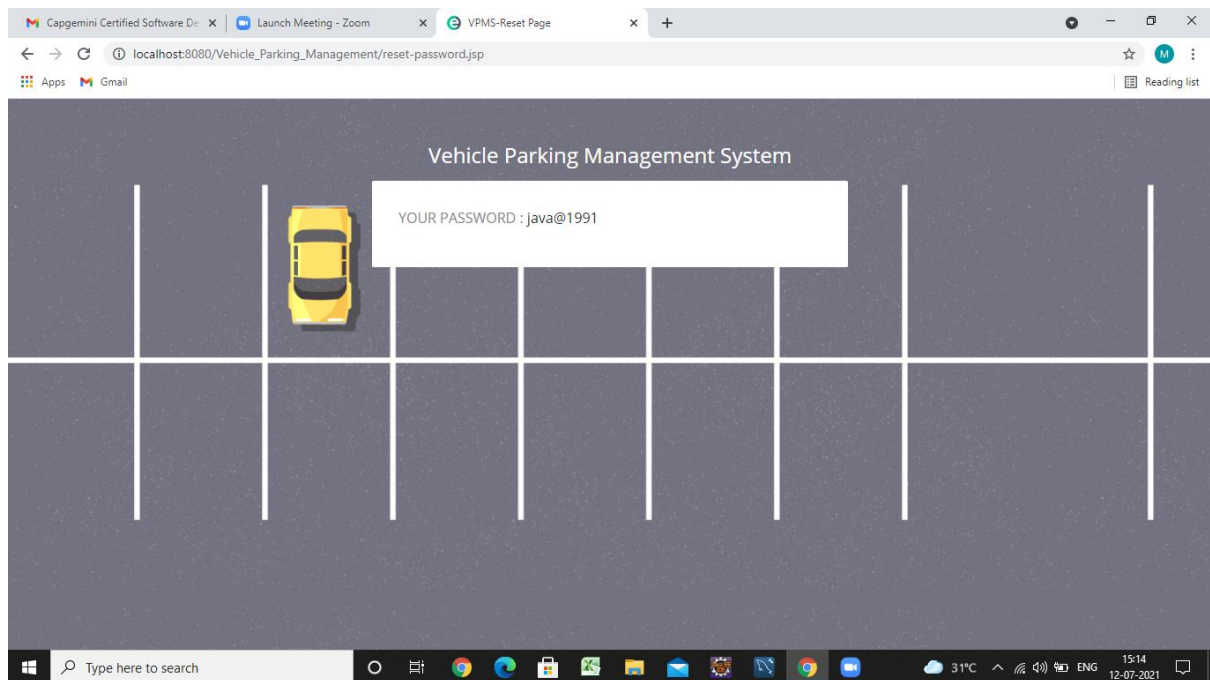
- MOBILE NUMBER**: A text input field with the placeholder "Mobile Number".
- Signin**: A red text link.
- FIND PASSWORD**: A green button.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 31°C, signal strength, and the date and time: 15:14, 12-07-2021.

Entering Mobile Number :



Viewing Forgotten Password :



Admin Dashboard :

The screenshot shows the Admin Dashboard of the Vehicle Parking Management System. The browser address bar displays the URL: `localhost:8080/Vehicle_Parking_Management/dashboard.jsp?tokens=%27d64fa42c-7bc8-419b-903a-ca213724fcd%27`. The dashboard features a sidebar menu with the following items: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area contains six summary cards: '1 Todays Vehicle Entries', '2 Yesterdays Vehicle Entries', '3 Last 7 days Vehicle Entries', '11 Total Vehicle Entries', '3 Total Bookings', and '25 Parking Seats Capacity'. The footer includes 'Copyright © 2020' and 'Vehicle Parking Management System'.

Adding Vehicle Category :

The screenshot shows the 'Add Category' page within the Vehicle Parking Management System. The browser address bar displays the URL: `localhost:8080/Vehicle_Parking_Management/add-category.jsp`. The page has a breadcrumb trail: 'Dashboard / Category / Add Category'. The main content area is titled 'Add Category' and contains a form with a 'Category Name' label and a text input field containing 'Vehicle Category'. Below the input field is a blue 'Add' button. The footer includes 'Copyright © 2020' and 'Vehicle Parking Management System'.

Managing the Vehicle Category :

Dashboard / Category / Manage Category

Manage Category

S.NO	Category	Action
1	Six Wheeler Vehicles	Edit Details
2	Four Wheeler Vehicle	Edit Details
3	Two Wheeler Vehicle	Edit Details
4	Bicycles	Edit Details

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Updating the Category Details :

Dashboard / Category / Update Category

Update Category

Category Name

Update

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To Add Vehicle for Parking :

The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/add-vehicle.jsp`. The page has a sidebar menu on the left with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area is titled 'Add Vehicle' and contains a form with the following fields: 'Select' (a dropdown menu), 'Vehicle Company' (a text input), 'Registration Number' (a text input), 'Owner Name' (a text input), and 'Owner Contact Number' (a text input). A blue 'Add' button is located at the bottom right of the form. The Windows taskbar at the bottom shows the system time as 15:16 on 12-07-2021.

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Managing Incoming Vehicle :

The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/manage-incomingvehicle.jsp`. The page has a sidebar menu on the left with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area is titled 'Manage Incoming Vehicle' and displays a table with the following data:

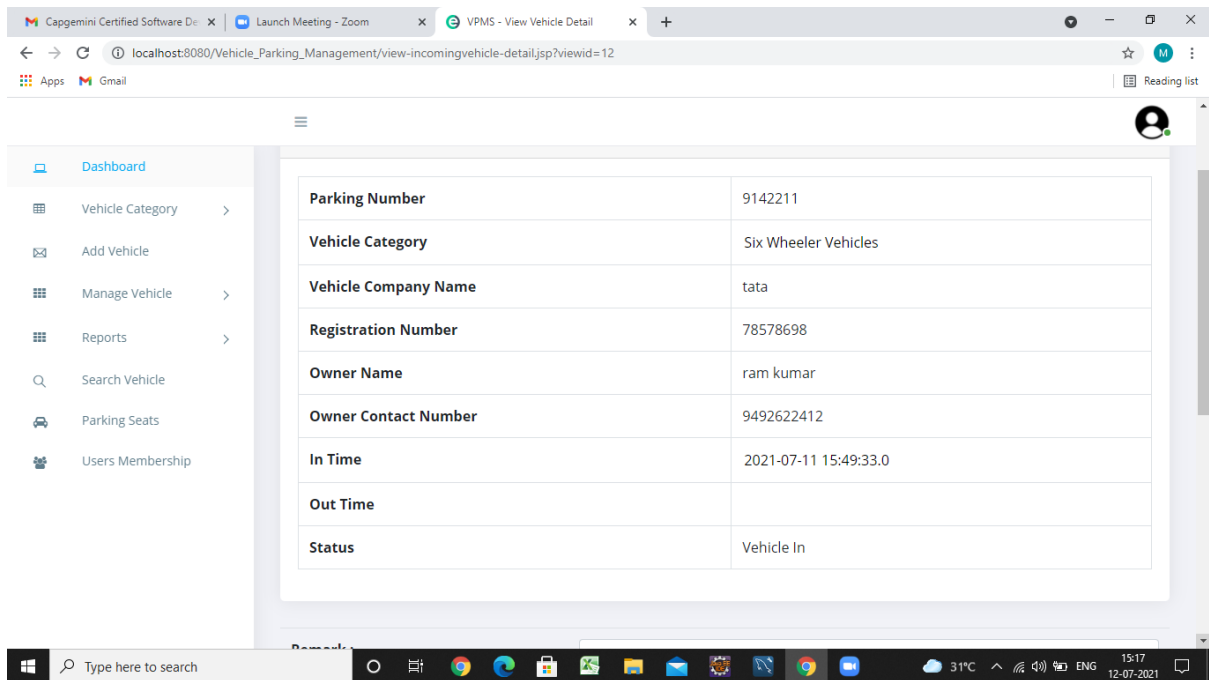
S.NO	Parking Number	Owner Name	Vehicle Reg Number	Action
9	5208856	Kishor Kadam	AU-258963	View Print
12	9142211	ram kumar	78578698	View Print
13	1092785	meenavalli manoja	AP-1013	View Print
14	4617780	manoja	AP-1013	View Print

The Windows taskbar at the bottom shows the system time as 15:17 on 12-07-2021.

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Vehicle Parking Management System

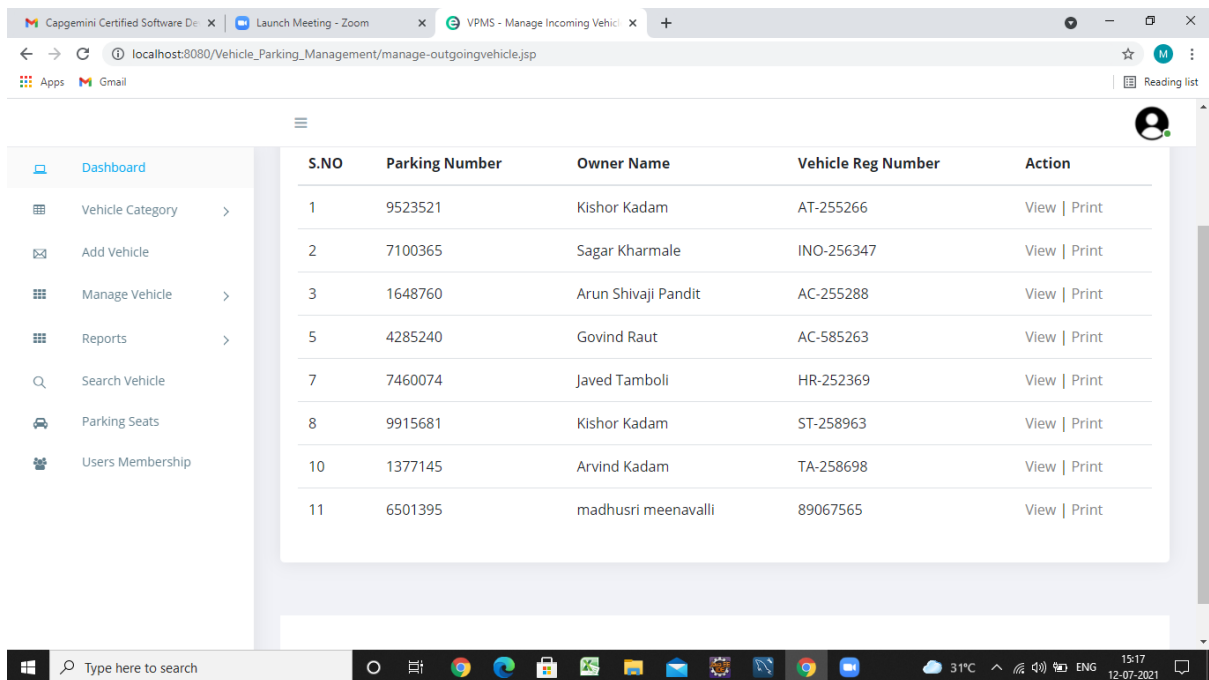
Incoming Vehicle Details :



The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/view-incomingvehicle-detail.jsp?viewid=12`. The application has a sidebar menu with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area displays a table with the following details:

Parking Number	9142211
Vehicle Category	Six Wheeler Vehicles
Vehicle Company Name	tata
Registration Number	78578698
Owner Name	ram kumar
Owner Contact Number	9492622412
In Time	2021-07-11 15:49:33.0
Out Time	
Status	Vehicle In

Outgoing Vehicle Details :



The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/manage-outgoingvehicle.jsp`. The application has the same sidebar menu as the previous screenshot. The main content area displays a table with the following data:

S.NO	Parking Number	Owner Name	Vehicle Reg Number	Action
1	9523521	Kishor Kadam	AT-255266	View Print
2	7100365	Sagar Kharmale	INO-256347	View Print
3	1648760	Arun Shivaji Pandit	AC-255288	View Print
5	4285240	Govind Raut	AC-585263	View Print
7	7460074	Javed Tamboli	HR-252369	View Print
8	9915681	Kishor Kadam	ST-258963	View Print
10	1377145	Arvind Kadam	TA-258698	View Print
11	6501395	madhusri meenavalli	89067565	View Print

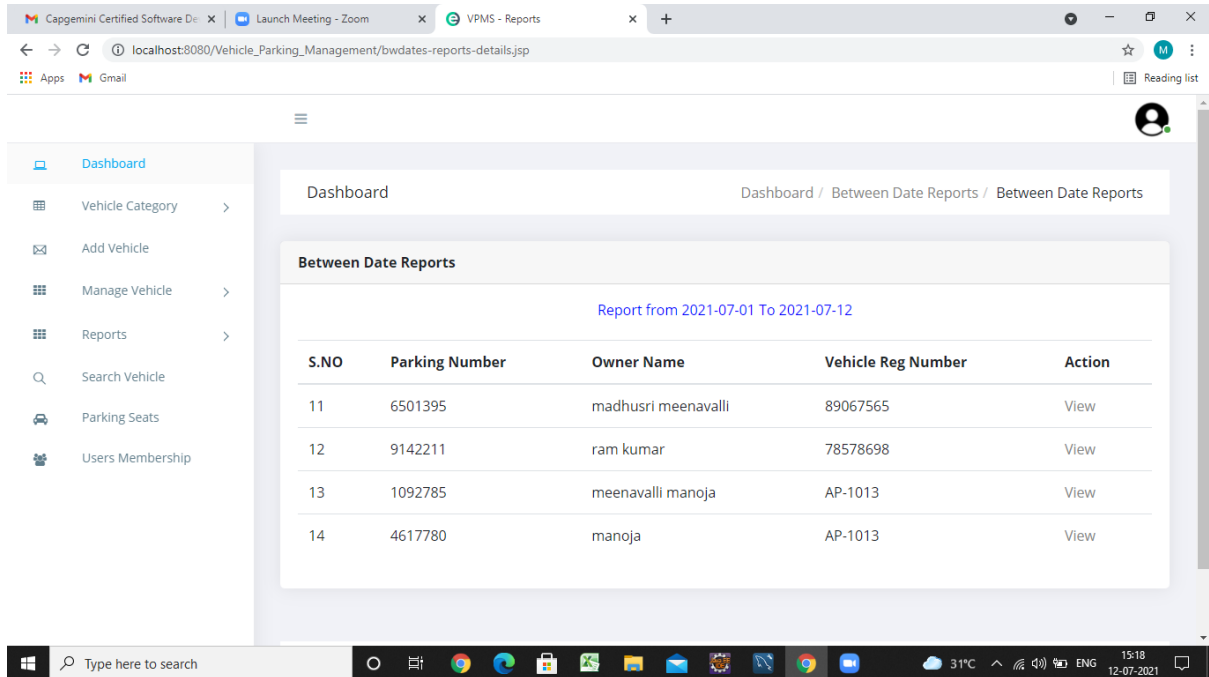
To view the Vehicle Between Dates :

The screenshot shows a web browser window with the URL `localhost:8080/Vehicle_Parking_Management/bwdates-report-ds.jsp`. The browser tabs include 'Capgemini Certified Software De...', 'Launch Meeting - Zoom', and 'VPMS - Reports'. The page has a sidebar menu with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area is titled 'Dashboard / Reports / Between Dates Reports'. It features a form titled 'Between Dates Reports' with two date input fields: 'From Date' and 'To Date', both with placeholder text 'dd-mm-yyyy'. A blue 'Submit' button is located below the 'To Date' field. The footer of the page includes 'Copyright © 2020' and 'Vehicle Parking Management System'.

Entering the Details of Dates :

This screenshot shows the same 'Between Dates Reports' form as the previous one, but with specific dates entered. The 'From Date' field now contains '01-07-2021' and the 'To Date' field contains '12-07-2021'. The 'To Date' field is highlighted with a blue border. The rest of the interface, including the sidebar and footer, remains the same.

Details of Vehicles Between Dates :



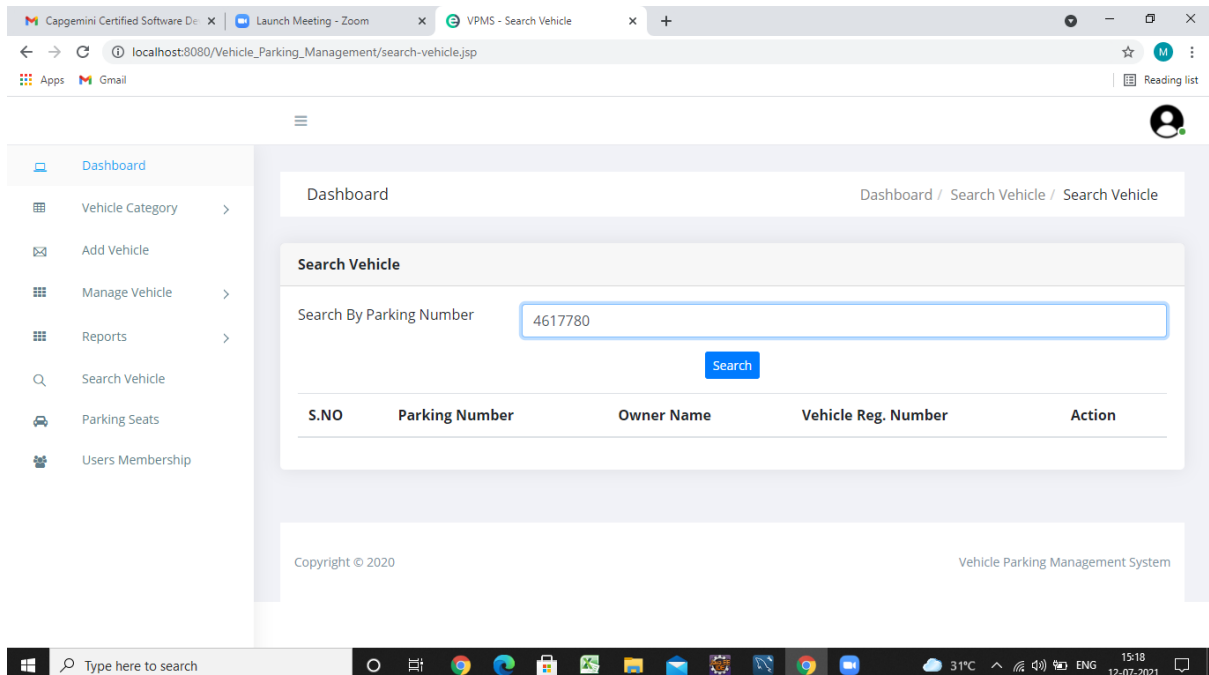
Dashboard / Between Date Reports / Between Date Reports

Between Date Reports

Report from 2021-07-01 To 2021-07-12

S.NO	Parking Number	Owner Name	Vehicle Reg Number	Action
11	6501395	madhusri meenavalli	89067565	View
12	9142211	ram kumar	78578698	View
13	1092785	meenavalli manoja	AP-1013	View
14	4617780	manoja	AP-1013	View

Searching Vehicle :



Dashboard / Search Vehicle / Search Vehicle

Search Vehicle

Search By Parking Number

[Search](#)

S.NO	Parking Number	Owner Name	Vehicle Reg. Number	Action
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Vehicle Parking Management System

Viewing the Details of searched Vehicle :

The screenshot displays the 'Search Vehicle' page of the Vehicle Parking Management System. The browser address bar shows the URL `localhost:8080/Vehicle_Parking_Management/search-vehicle.jsp`. The left sidebar contains a menu with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area has a breadcrumb trail: Dashboard / Search Vehicle / Search Vehicle. Below this is a 'Search Vehicle' section with a text input field labeled 'Search By Parking Number' and a 'Search' button. A table below the input field displays the search results:

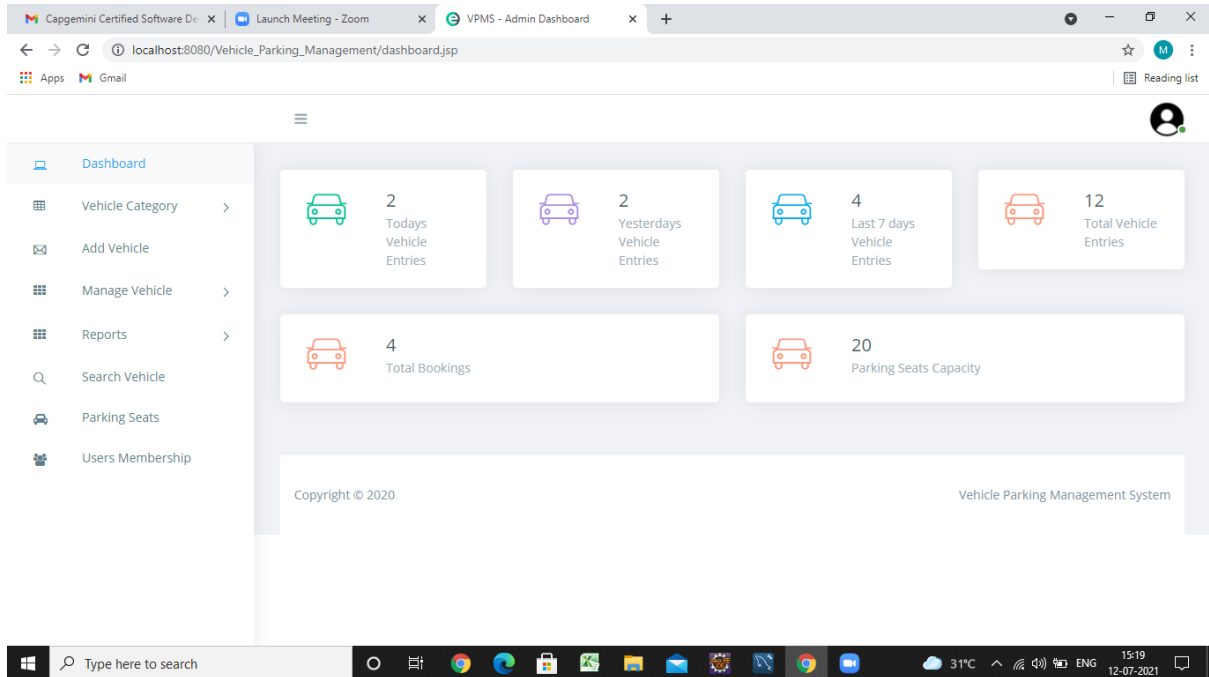
S.NO	Parking Number	Owner Name	Vehicle Reg. Number	Action
14	4617780	manoja	AP-1013	View

Below the table, a message states: 'No record found against this search'. The Windows taskbar at the bottom shows the system time as 15:18 on 12-07-2021.

Available Parking Seats :

The screenshot displays the 'Parking Seats' page of the Vehicle Parking Management System. The browser address bar shows the URL `localhost:8080/Vehicle_Parking_Management/parking-seat.jsp`. The left sidebar contains a menu with options: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area has a breadcrumb trail: Dashboard / Category / Parking Seats. Below this is a 'Parking Seats' section with a text input field labeled 'Parking Seats' containing the value '25' and an 'Update Parking Seats' button. The Windows taskbar at the bottom shows the system time as 15:19 on 12-07-2021.

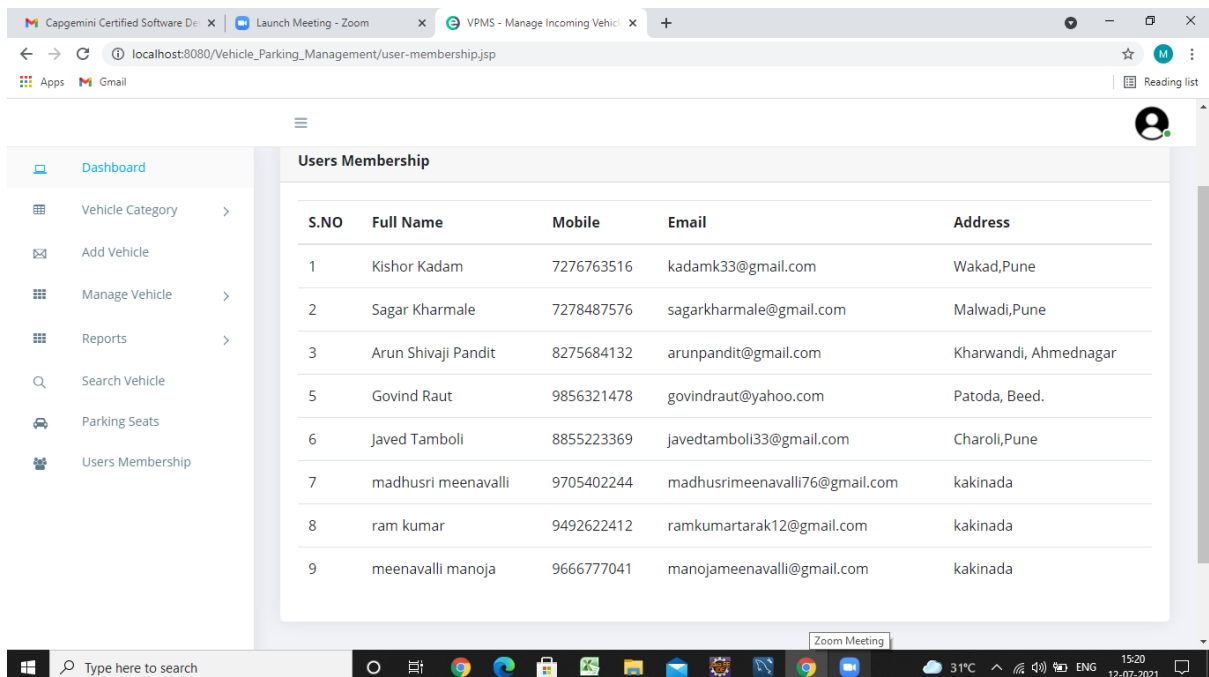
Updated the Parking Seats :



The screenshot shows the 'Dashboard' page of the Vehicle Parking Management System. The browser address bar indicates the URL is localhost:8080/Vehicle_Parking_Management/dashboard.jsp. The dashboard features a sidebar with navigation links: Dashboard, Vehicle Category, Add Vehicle, Manage Vehicle, Reports, Search Vehicle, Parking Seats, and Users Membership. The main content area displays six summary cards: '2 Todays Vehicle Entries', '2 Yesterdays Vehicle Entries', '4 Last 7 days Vehicle Entries', '12 Total Vehicle Entries', '4 Total Bookings', and '20 Parking Seats Capacity'. At the bottom, it shows 'Copyright © 2020' and 'Vehicle Parking Management System'.

Metric	Value
Todays Vehicle Entries	2
Yesterdays Vehicle Entries	2
Last 7 days Vehicle Entries	4
Total Vehicle Entries	12
Total Bookings	4
Parking Seats Capacity	20

Users Membership :



The screenshot shows the 'Users Membership' page of the Vehicle Parking Management System. The browser address bar indicates the URL is localhost:8080/Vehicle_Parking_Management/user-membership.jsp. The page displays a table with user membership details. The sidebar navigation is the same as the dashboard. The table has columns for S.NO, Full Name, Mobile, Email, and Address.

S.NO	Full Name	Mobile	Email	Address
1	Kishor Kadam	7276763516	kadamk33@gmail.com	Wakad,Pune
2	Sagar Kharmale	7278487576	sagarkharmale@gmail.com	Malwadi,Pune
3	Arun Shivaji Pandit	8275684132	arunpandit@gmail.com	Kharwandi, Ahmednagar
5	Govind Raut	9856321478	govindraut@yahoo.com	Patoda, Beed.
6	Javed Tamboli	8855223369	javedtamboli33@gmail.com	Charoli,Pune
7	madhusri meenavalli	9705402244	madhusrimeenavalli76@gmail.com	kakinada
8	ram kumar	9492622412	ramkumartarak12@gmail.com	kakinada
9	meenavalli manoja	9666777041	manojameenavalli@gmail.com	kakinada

Thank You