

## **Car Dealership Management System**

### **1.DESCRPTION**

The car dealership management system allows salespersons to maintain a record of the customers visiting the dealership as well as the vehicles currently available at the dealership.

The salesperson is able to add the details of a new customer to the database along with his/her sales id as reference.

The salesperson is also able to search for the details of a particular of a customer based on his/her customer id. This will display the details of the customer with the entered id.

There is also a delete customer functionality which can be used to delete the details of a customer when no longer required.

Salesperson is able to check available stock using the check inventory feature present in the system. This can then be used to show the customer a list of cars available at the dealership.

The salesperson is also able to search for a particular car based on its unique vehicle id. Which will display details such as make, model, colour and manufacturing year of the vehicle.

There is also a sale feature which allows a sale to be stored in records upon entering customer id, vehicle id and salesperson id, and deletes the sold vehicle from inventory of vehicles available

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## **2.FEATURES**

The car dealership management system helps employees working at the dealership easily maintain a record of the customers visiting and vehicles available at the dealership.

- It allows salespersons to add new customer details with ease
- It allows salespersons to delete customer details easily
- It allows salespersons to search for a customer's details
- It allows salespersons to view all the customers registered with the dealership
- It allows employees to add new cars as they are acquired by the dealership
- It allows employees to check the available inventory
- It allows a salesperson to look up details of a particular car
- It allows the salesperson to delete the details of a particular vehicle once a sale is made
- It allows the salespeople to keep a track of all sales made with the date and time of sale. This is very useful for a company as it helps in accounting and calculating revenue, strong periods of sales etc.
- It allows existing salespersons to be removed from the dealership records once they leave the dealership. All existing customers linked to them shall also have to be deleted and issued fresh salespersons.
- It allows to view all salespersons employed with the company currently
- It allows a salesperson to view details of all customers linked to him/her upon entering salesperson ID. This is especially useful for a dealership to send promotions and link commissions of a sale to a particular salesperson.

## **User Interface**

The home page consists of a simple login form which allows user login. Once correct password is entered a function dashboard allows users to navigate through the different functionalities provided.

## **Safety and Security**

Throughout the development process, user safety and security to prevent misuse of the management of a company has been given utmost importance

- Login is carried out securely based on the salesperson ID as username and unique password set by each salesperson.

## **3. TECHNOLOGIES USED**

- Node.JS
- Express
- MySQL
- HTML
- Javascript
- CSS

## 6. IMPLEMENTATION

### Database Connection:

```
9  var con=mysql.createConnection({
10    host:"localhost",
11    user:"root",
12    password:"",
13    database:"dms"
14  });
```

### Display Query:

```
1  var express = require('express');
2  var router = express.Router();
3  var mysql = require('mysql');
4
5  var con=mysql.createConnection({
6    host:"localhost",
7    user:"root",
8    password:"",
9    database:"dms"
10  });
11
12  /* GET home page. */
13  router.get('/', function(req, res, next) {
14    con.query("select * from customer",function(err,result,field){
15      res.render('dummy',{result:result});
16    });
17  });
18
19  module.exports = router;
```

### Insert Query

```
var express = require('express');
var router = express.Router();
var mysql = require('mysql');

var con=mysql.createConnection({
  host:"localhost",
  user:"root",
  password:"",
  database:"dms"
});

/* GET home page. */
router.post('/', function(req, res, next) {
  var address=req.body.address;
  var phone=req.body.phone;
  var name=req.body.name;
  var sid= req.body.sid;
  console.log(name);
  con.query("insert into customer(caddress,cphone,cname,sid) values(?,?,?,?)",
    [[address,phone,name,sid],function(err,result,field){
      res.redirect('/pager2');
    }]);
});
module.exports = router;
```

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## Search query

```
var express = require('express');
var router = express.Router();
var mysql = require('mysql');

var con=mysql.createConnection({
  host:"localhost",
  user:"root",
  password:"",
  database:"dms"
});

router.post('/', function(req, res, next) {
  var id =req.body.id;
  console.log(id);
  con.query("select * from customer where cid =?",[id],function(err,result,field){
    res.render('dummy',{result:result});
  });
});
module.exports = router;
```

## Sale Query:

```
var express = require('express');
var router = express.Router();
var mysql = require('mysql');

var con=mysql.createConnection({
  host:"localhost",
  user:"root",
  password:"",
  database:"dms"
});
/* GET home page. */
router.post('/', function(req, res, next) {
  var cid=req.body.cid;
  var vid=req.body.vid;
  var sid=req.body.sid;
  console.log(cid);
  con.query("insert into deal(cid,vid,sid) values(?,?,?)",[cid,vid,sid],function(err,result,field){
  });
  con.query("delete from vehicle where vid = ?",[vid],function(err,result,field){
    res.redirect('/pager2');
  });
});
module.exports = router;
```

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## Delete Query:

```
var express = require('express');
var router = express.Router();
var mysql = require('mysql');

var con=mysql.createConnection({
  host:"localhost",
  user:"root",
  password:"",
  database:"dms"
});

/* GET home page. */
router.post('/', function(req, res, next) {
  var id=req.body.id;

  console.log(id);
  con.query("delete from salesperson where sid = ?",[id],function(err,result,field){
  });
  con.query("delete from customer where sid=?", [id],function(err,result,field){
    res.redirect('/pager2');
  });
});
module.exports = router;
```

## Output Screens/Views

### Login page

← → ↻ ⓘ localhost:3000

## GOA MOTORS

User Name :

Password :

Login

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## Function Dashboard

The screenshot shows a web browser window with the URL `localhost:3000/page2`. The page has a dark blue header with the text "Goa Motors" and "Database Management System". Below the header, there are three teal-colored boxes representing different service categories:

- Customer Services**
  - Add customer
  - Get Customer Details
  - Delete customer
  - Search for Customer
- Vehicle Services**
  - Add Vehicle
  - Check Stock of Vehicles
  - Search for Vehicle by id
  - Make Vehicle Sale
- Salesperson Services**
  - Check Salespeople employed
  - Delete a Salesperson
  - Check Customers associated with a salesperson

## Add customer

The screenshot shows a web browser window with the URL `localhost:3000/addcustomer`. The page has a blue background. In the center, there is a rounded rectangle with a black border containing the following form:

**Add Customer:**

Name  
Enter name

Address  
Enter address

Phone number  
Enter phone

Allot Salesperson ID:  
Enter salesperson ID

## Delete Customer

The screenshot shows a web browser window with the URL `localhost:3000/deletecustomer`. The page has a blue background. In the center, there is a rounded rectangle with a black border containing the following form:

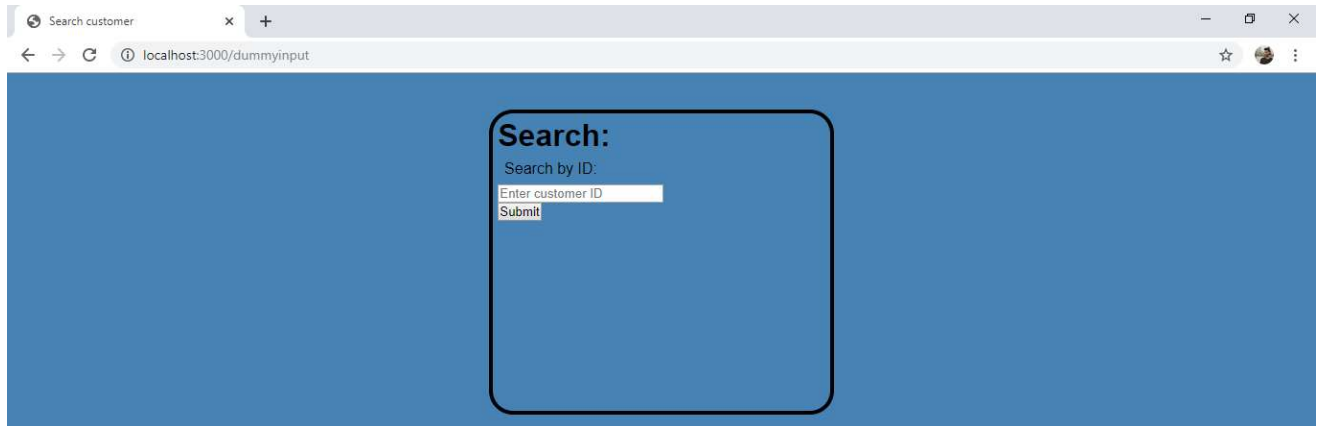
**Delete Customer:**

Delete by ID:  
Enter customer ID

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## Search for Customer



The screenshot shows a web browser window with the title 'Search customer'. The address bar displays 'localhost:3000/dummyinput'. The main content area has a blue background. A white rounded rectangle contains the text 'Search:' followed by 'Search by ID:'. Below this is a text input field with the placeholder 'Enter customer ID' and a 'Submit' button.

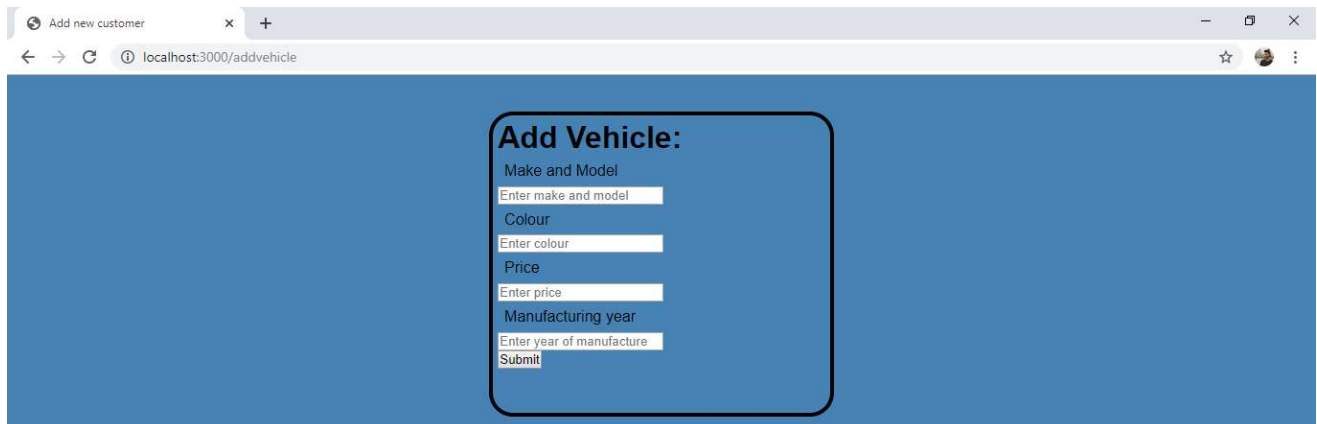
## Display Customers



The screenshot shows a web browser window with the title 'localhost:3000/dummy'. The main content area displays a list of customer information in a table-like format with horizontal dividers.

Customer id:2 Customer name:Bobby Customer phone:875628572 Customer address:Bandra
Salesperson Allotted:1
Customer id:3 Customer name:Mo Customer phone:68439874 Customer address:Margao
Salesperson Allotted:1
Customer id:4 Customer name:Virgil Customer phone:461537126 Customer address:Tokyo
Salesperson Allotted:2
Customer id:5 Customer name:Sadio Customer phone:38878173 Customer address:Panjim
Salesperson Allotted:4

## Add Vehicle



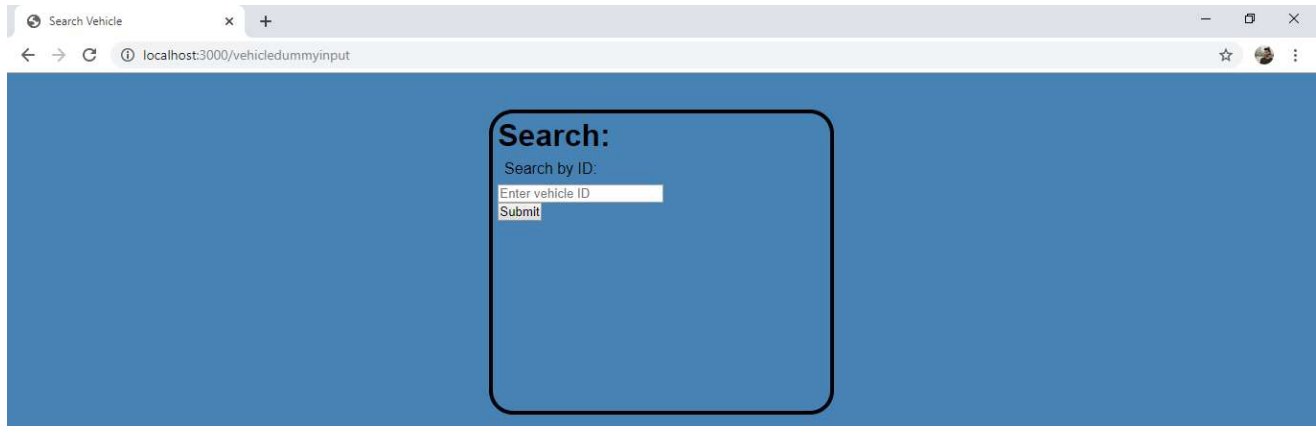
The screenshot shows a web browser window with the title 'Add new customer'. The address bar displays 'localhost:3000/addvehicle'. The main content area has a blue background. A white rounded rectangle contains the text 'Add Vehicle:'. Below this are five text input fields with labels: 'Make and Model', 'Colour', 'Price', and 'Manufacturing year'. Each field has a placeholder 'Enter [label]'. At the bottom is a 'Submit' button.



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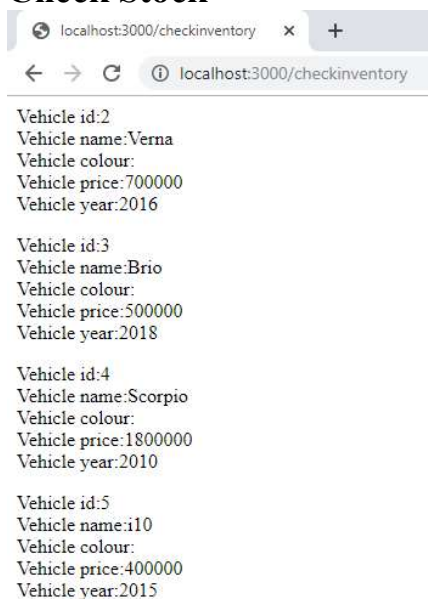
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## Search vehicle



The screenshot shows a web browser window with the title "Search Vehicle". The address bar displays "localhost:3000/vehicledummyinput". The main content area has a blue background and contains a white box with the heading "Search:". Below the heading, there is a label "Search by ID:", a text input field with the placeholder "Enter vehicle ID", and a "Submit" button.

## Check Stock



The screenshot shows a web browser window with the title "localhost:3000/checkinventory". The address bar displays "localhost:3000/checkinventory". The main content area lists five vehicles with their details:

- Vehicle id:2  
Vehicle name:Verna  
Vehicle colour:  
Vehicle price:700000  
Vehicle year:2016
- Vehicle id:3  
Vehicle name:Brio  
Vehicle colour:  
Vehicle price:500000  
Vehicle year:2018
- Vehicle id:4  
Vehicle name:Scorpio  
Vehicle colour:  
Vehicle price:1800000  
Vehicle year:2010
- Vehicle id:5  
Vehicle name:i10  
Vehicle colour:  
Vehicle price:400000  
Vehicle year:2015

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## Make Sale



The screenshot shows a web browser window with the title "Search customer". The address bar displays "localhost:3000/saleinput". The main content area has a blue background and contains a white box with the heading "Make Sale :". Below the heading, there are four labels with corresponding text input fields: "Enter customer ID:", "Enter salesperson ID:", "Enter vehicle ID:", and "Enter ID of vehicle to be sold". A "Submit" button is located at the bottom of the form.



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## Check salespersons employed



Salesperson id:1  
Salesperson name:Jake  
Salesperson Address:  
Salesperson Phone:1234567890  
Salesperson Salary:

Salesperson id:2  
Salesperson name:Dan  
Salesperson Address:  
Salesperson Phone:5647382956  
Salesperson Salary:

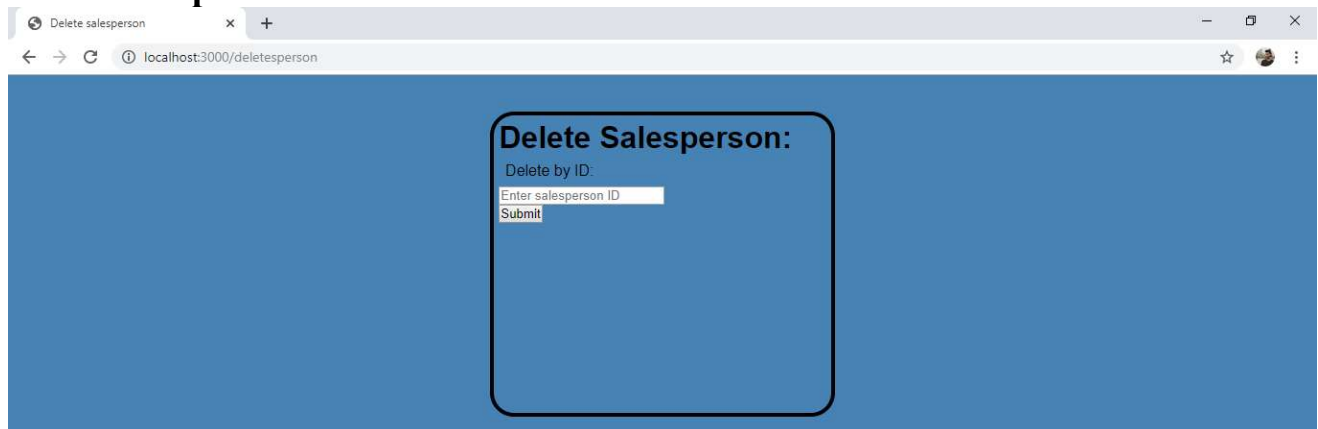
Salesperson id:3  
Salesperson name:Samir  
Salesperson Address:  
Salesperson Phone:6587384724  
Salesperson Salary:

Salesperson id:4  
Salesperson name:Wayne  
Salesperson Address:  
Salesperson Phone:6576587265  
Salesperson Salary:

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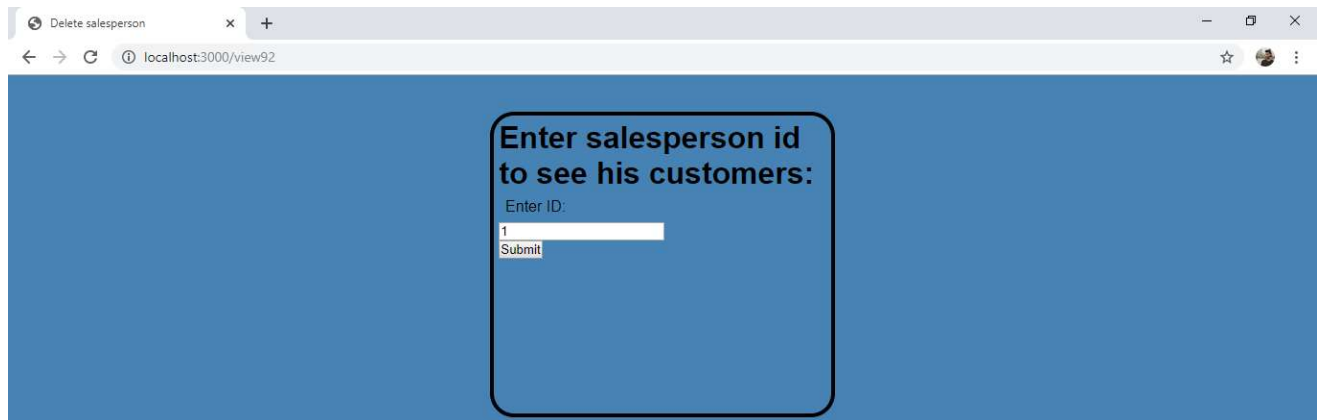
## Delete salespersons



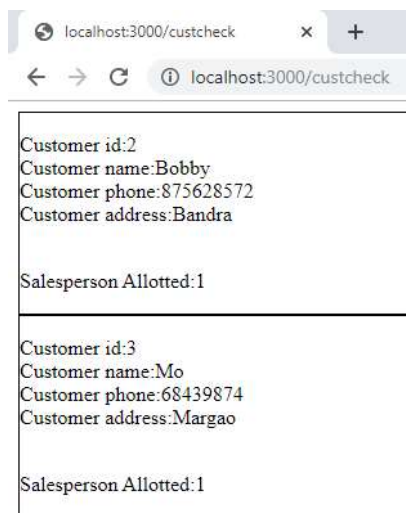
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## Check customers linked to a salesperson



The screenshot shows a web browser window with the address bar displaying 'localhost:3000/view92'. The page has a blue background. A white box with a black border contains the text 'Enter salesperson id to see his customers:'. Below this text, there is a label 'Enter ID:', a text input field containing the number '1', and a 'Submit' button.



The screenshot shows a web browser window with the address bar displaying 'localhost:3000/custcheck'. The page has a white background. It displays two customer records, each separated by a horizontal line. The first record shows: Customer id:2, Customer name:Bobby, Customer phone:875628572, Customer address:Bandra, and Salesperson Allotted:1. The second record shows: Customer id:3, Customer name:Mo, Customer phone:68439874, Customer address:Margao, and Salesperson Allotted:1.

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## 7. CONCLUSION

The application for a car dealership management system was carried out successfully.

## 8. REFERENCES

Fundamentals of Database Systems 5<sup>th</sup> edition Ramez Elsmari Shamkant B Navathe

<https://expressjs.com/en/guide>

<https://www.w3schools.com>

<https://www.freecodecamp.org/learn/>