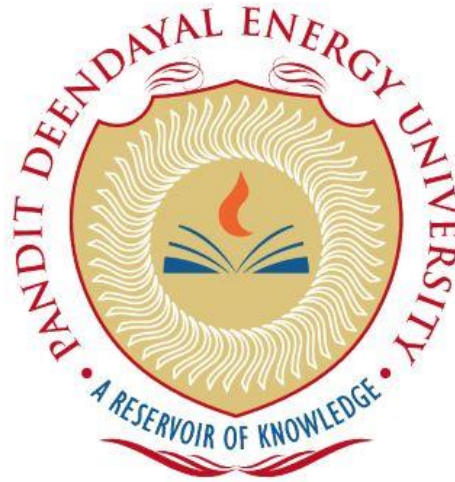


PANDIT DEENDAYAL ENERGY UNIVERSITY
SCHOOL OF TECHNOLOGY



Course: Advanced Web Technology Lab

Course Code: 20CP313P

Project Report

B.Tech. (Computer Engineering)

Semester 6

Submitted To:

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Project Title: WhealDeal – Go Places, Go Far

Buy, Sell or Upgrade Your Car or Bike – Full-Stack Vehicle Marketplace

Introduction

WhealDeal is a full-stack web application developed using the MERN stack (MongoDB, Express.js, React.js, Node.js). It offers a one-stop solution for users to:

- Buy a used vehicle (bike or car)
- Sell their own vehicle with condition & image
- Get a dynamic price estimate
- Book test drives
- Admin can manage listings and bookings

The platform features a clean, responsive UI and real-time interaction with a MongoDB database. It emphasizes a smooth user experience and intuitive navigation.

Functionality (Features)

Vehicle Listing (Selling)

Sellers enter details (type, make, model, km, year, condition). Upload vehicle images. Estimate price is calculated automatically. Vehicles are listed for buyers to view.

WhealDeal - Go Places, Go Far

Sell Your Vehicle

Car

2020

20000

Suzuki

Wagonr

Excellent

Choose Files Figure_1.png

Submit

Vehicle Browsing (Buying)

All listed vehicles are shown. Includes images, price, make, model, and condition.

WhealDeal - Go Places, Go Far

Buy a Vehicle

Honda Jazz

Type: Car

Year: 2020

Kilometers Driven: 10000

Condition: Good

Estimated Price: ₹50000

 vehicle

Price Estimator

Real-time price estimate for a vehicle based on km driven, year, and condition.

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Estimate Your Vehicle Price

Car

2020

10000

Honda

Jazz

Excellent

Get Estimate

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Book a Test Drive

Enter name, contact info, vehicle of interest. Select preferred date. Info saved in database.

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Book a Test Drive

HENEEL CHETAN PARMAR

parmarheneel511@gmail.com

08866939139

Honda City

dd - mm - yyyy

Book Test Drive

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Admin Panel

View all vehicle listings. View all test drive bookings. Delete any record directly. Live update after each action.

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Admin Panel

Vehicles Listed

Honda Jazz (2020) - Car - Condition: Good - ₹50000

Delete

Honda Jazz (2020) - Car - Condition: Good - ₹50000

Delete

Suzuki Wagonr (2019) - Car - Condition: Excellent - ₹50000

Delete

Suzuki Wagonr (2019) - Car - Condition: Excellent - ₹50000

Delete

Test Drive Bookings

HENEEL PARMAR |||

Delete

Frontend (React + Plain CSS + Font Awesome)

- React Functional Components with Hooks (useState, useEffect)
- React Router for page navigation
- Axios for API communication
- Font Awesome icons for UI polish
- Responsive, minimal design using Flexbox & Grid

Backend (Node.js + Express + MongoDB)

Express.js REST API with modular routing. MongoDB for persistent storage.

Mongoose models:

- Vehicle model
- TestDrive model

Admin APIs:

- GET /api/vehicles – fetch all vehicles
- POST /api/vehicles – add new listing
- DELETE /api/vehicles/:id – delete vehicle
- POST /api/test-drive – book test drive
- GET /api/test-drive – fetch all bookings
- DELETE /api/test-drive/:id – delete booking

Database (MongoDB Local or Atlas)

Database Name: whealdeal

Collections:

- vehicles
- testdrives

The screenshot displays the MongoDB Atlas web interface. At the top, the breadcrumb navigation shows 'localhost:27017 > whealdeal > vehicles'. A button 'Open MongoDB shell' is in the top right. Below the breadcrumb, tabs for 'Documents', 'Aggregations', 'Schema', 'Indexes', and 'Validation' are visible, with 'Documents' being the active tab. A search bar contains the text 'Type a query: { field: 'value' } or [Generate query](#)'. To the right of the search bar are buttons for 'Explain', 'Reset', 'Find', and 'Options'. Below the search bar, a row of action buttons includes 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. A pagination bar shows '25' items per page and '1 - 4 of 4' documents. The main area displays a list of documents. The first document is expanded, showing its JSON structure:

```
{
  "_id": ObjectId('67f4a71b9bd49987874741d8'),
  "type": "Car",
  "year": 2020,
  "km": 10000,
  "make": "Honda",
  "model": "Jazz",
  "condition": "Good",
  "images": Array (1),
  "priceEstimate": 50000,
  "__v": 0
}
```

 Below this, a second document is visible but not expanded. The interface for the 'testdrives' collection is shown below, with a breadcrumb 'localhost:27017 > whealdeal > testdrives' and a 'Open MongoDB shell' button. The 'Documents' tab is active, and the search bar is empty. The action buttons and pagination are the same. One document is listed:

```
{
  "_id": ObjectId('67f4a9b451c3fbb2a4b99a2c'),
  "name": "HENEEL PARMAR",
  "__v": 0
}
```

Development URLs

Frontend: <http://localhost:5173>

Backend: <http://localhost:5000>

Summary

WhealDeal is a complete full-stack MERN project focused on solving the used vehicle marketplace problem. It allows seamless buying, selling, and upgrading of vehicles. All actions are data-driven and connected with a MongoDB backend. The project demonstrates proficiency in building real-world, component-based, dynamic web apps.