**IPS Academy, Indore**

**Institute of Engineering and Science**

**Department of Computer Science and Information Technology**

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Synopsis Report of Mini Project

Project Title:

“Vehicle Rental Website”

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1. **ABSTRACT**

The "Vehicle Rental Website" is a platform that connects vehicle owners with renters for short-term rentals. It allows owners to list their vehicles while offering renters an easy way to find, book, and pay for rentals. By streamlining the process with efficient listings, search filters, and secure payments, the platform ensures a hassle-free experience, benefiting both owners and renters

**2. LIST OF KEYWORDS**

|  |  |  |
| --- | --- | --- |
| **S.NO** | **Short** | **Meaning** |
| 1. | HTML | HyperText Markup Language |
| 2. | Tailwind CSS &CSS | Utility-first CSS framework for building custom designs |
| 3. | JS | JavaScript |
| 4. | |  | | --- | | UI/UX | | User Interface/User Experience |
| 5. | API | Application Programming Interface |
| 6. | Mongo DB & MySQL | |  | | --- | |  |  |  | | --- | | Database | |
| 7. | |  | | --- | |  |  |  | | --- | | AWS | | Amazon Web Services |
| 8. | Postman | API development and testing tool |
| 9. | Node JS & Express JS | For Backend Work |
|  |  |  |

**3. INTRODUCTION**

The "Vehicle Rental Website" addresses the growing demand

for vehicle rentals. The website will allow vehicle owners to

rent out their idle cars or bikes, providing an additional

income source. Meanwhile, renters can quickly find a vehicle

for their short-term needs, making it convenient for travel,

business trips, or personal errands. The goal is to create a

user-friendly platform that facilitates smooth rental

transactions between vehicle owners and renters.

**4. PROBLEM DOMAIN**

The current vehicle rental market lacks easily accessible online solutions for peer-to-peer rentals. Traditional rental companies dominate, offering limited flexibility and high costs. Meanwhile, vehicle owners often have unused cars or motorcycles that could provide a source of income. This project aims to bridge the gap between these two groups, creating a streamlined online solution.

**5. SOLUTION DOMAIN**

The website will offer features for:

Vehicle owners:

Easy vehicle listings, rental management, earnings tracking.  
Vehicle usage monitoring via integrated GPS tracking for security.

Renters:

Advanced search and filtering options, simple booking processes, secure payment gateways.  
Simple, hassle-free booking processes with real-time availability checks.

Admin:   
A management dashboard for overseeing users, vehicles, and transactions.  
Automated verification of user identities and documents for security purposes.

**6. SYSTEM DOMAIN**

Our project require following software and hardware to run on -

**Hardware Requirements:**

|  |  |
| --- | --- |
| **S. No.** | **HARDWARE DETAILS** |
| 1. | Personal Computer |
| 2. | Personal Moblie |
| 3. | Internet Connection |
|  |  |

**Software Requirements:**

|  |  |
| --- | --- |
| **S. No.** | **SOFTWARE NEEDED** |
| **1.** | HTML, CSS, JavaScript, React.js |
| **2.** | Node.js & Express Js |
| **3.** | Firebase Realtime Database |
| **4.** | Git and GitHub |

**7. APPLICATION DOMAIN**

**Vehicle Renters:**

* Individuals seeking affordable, short-term vehicle rentals for personal or business use.
* People living in cities who need fast and flexible ways to get around without having to buy a vehicle.
* Visitors or travelers looking for temporary vehicles to help them explore or get around.

**Vehicle Owners:**

* Individuals looking to generate passive income by renting out their idle vehicles.
* Owners of cars, motorcycles, or scooters who want to maximize the utility of their assets.
* Those in urban areas where demand for short-term rentals is high, providing a lucrative market for owners.

**8.Expected Outcomes.**

 Easy-to-use app or website for managing rentals.

 Secure and reliable vehicle listings for peace of mind.

 Flexible rental durations to suit different needs.

 Ratings and reviews to help users choose the best options.

 Customer support available for assistance and inquiries.

 Clear pricing with no hidden fees for transparency.

 Ability for renters to communicate directly with vehicle owners.

 Eco-friendly options available for environmentally conscious users.

 Integration with local navigation and mapping services for convenience.

**9.REFERENCES**

**ONLINE SOURCE**

**[1] Geeksforgeeks “collection In Android”,** [**www.geeksforgeeks.com**](http://www.geeksforgeeks.com)

**Available:**

[**https://www.geeksforgeeks.org/collections-in-java-2/**](https://www.geeksforgeeks.org/collections-in-java-2/)

**[Accessed Feb 10,2020].**

**[2] JavaTPoint “Java Database Connectivity with 5 Steps”.** [**www.javatpoint.com**](http://www.javatpoint.com)

**Available:**

[**https://www.javatpoint.com/steps-to-connect-to-the-database-in-java**](https://www.javatpoint.com/steps-to-connect-to-the-database-in-java)**,**

**[Accessed Feb 10,2020].**

**[4] Tutorials Point “Data Access Object Pattern”,** [**www.tutorialspoint.com**](http://www.tutorialspoint.com)

**Available:https://www.tutorialspoint.com/design\_pattern/data\_access\_object-\_pattern.htm**

**[Accessed Feb 11,2020].**

**[5] Guru99 “Example of MVC Architecture”,** [**www.guru99.com**](http://www.guru99.com)

**Available:**

[**https://www.guru99.com/jsp-mvc.html**](https://www.guru99.com/jsp-mvc.html)

**[Accessed Feb 13,2020].**

**BOOKS**

**[1] Android Application Development (with kitkat support), Author: Pradeep Kothari.**