





# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

**Volume 10, Issue 5, May 2022** 



**Impact Factor: 8.165** 







| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | | Impact Factor: 8.165 |

|| Volume 10, Issue 5, May 2022 ||

| DOI: 10.15680/IJIRCCE.2022.1005017|

### **Rental Based Application - React Native**

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ABSTRACT: This knowledge based Application purpose a model smart phones application to that uses services the vehicle, Electrical devices, furniture etc This system will help the to give their idle car, play station etc...which will extra bit of income. they can also sell their rental products also buy new Car directly using this system user cheaper way. This system application has developed in react native platform. Customers will be able to reserve their vehicles from anywhere in the world due to the Rental System. Consumers provide information to this application by filling in their personal information. When a consumer creates an account on the application, he or she can reserve a rental items. when a person puts his product for rent, all other users can have a look at it. To create a new account in the app, the user just needs to enter his mobile number for One-Time Password (OTP) validation through firebase. After successful login, all the products that are kept for rent will be displayed on the home activity. The android application uses current user location and sorts the items from nearest to the farthest. To post an item for rent, the user needs to tap on the "Post ad" option in the menu. The user is required to select a category from the provided 10 categories in the application for a systematic classification. Then he needs to upload photographs of the product and get the geolocation from track the coordinates of longitude and latitude and we will send the information in google api and stored the data in json and the json data will move on database management. Finally, on tapping the "Post" button, the item will be successfully put out for rent, so that other users can find it. The whole idea is to connect people in renting things online. People can save their expenses on some products by renting things owned by others for a particular period.

**KEYWORDS:** rental product, mobile application, react native platform.

#### I. INTRODUCTION

Gone are the days when you had to lock down your investment in furniture, appliances or electronics. Start renting & say goodbye to all the hassles and discomfort because you can now have your home or office furnished within 24-72 hours. A few taps on your phone is all it takes to have your place set up with your favorites furniture, appliances & electronics. Rento is India's leading rental platform, available in 8 major cities: Bangalore, Chennai, Delhi, Gurgaon, Hyderabad, Mumbai, Noida, and Pune. Say goodbye to all the hassles of furnishing your home or spending thousands on owning the latest Smartphone. Get your home/office furnished with furniture and appliances in just 24-72 hours or upgrade to the latest gadget in town. Start living the life you've always wanted, now!.

#### II. REQUIREMENT ANALYSYS

#### A. React native platform

Platform has an OS feature that tells us when we run our app on Android (android). In addition, the Platform comes with the selected method provided with the react Platform key. The OS will revert to the value of the domain in which we use our code.

#### B. Node js

Node.js is primarily used for event-driven servers, due to its single-chain nature. It is used for traditional websites and background API services, but is designed with real-time thought in mind. The React native forum is an open source JavaScript library used to create user-linked links for single-page applications. Used to manage the viewing layer of mobile applications. React native also allows us to create reusable UI component.

#### C. Mongo Database

MongoDB is a text-based online source program. Divided as a NoSQL website system, MongoDB uses documents like JSON with optional schemes. MongoDB is owned by MongoDB Inc. and is licensed under the Server Side Public License.



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#### III. METHODOLOGY

The person working in the organization will be well organized and organized. Data will be stored securely in data stores, which will help in obtaining information and storing it.

An important issue in project development is the choice of front-end and back-end. When we decide to develop a project we do a thorough research to find the most suitable platform that fits the needs of the organization and to assist in project development. Elements of our research include the following.

#### A. Authentication

The OTP feature prevents certain types of identity theft by ensuring that the scanned username / password on the pair cannot be used a second time. OTP is much more secure than a fixed password, especially a user-created password, which can be weakened and / or reused on all multiple accounts. The module provides access to the Telephone Number that receives the phone number. Firebase sends an SMS message to the user with a code, which they must then verify. Login By Phone Number returns the verification method that receives the code. Based on whether the code is valid on the device, the method is either declining or resolving.

#### B. Database Handling

- MongoDB is a document-focused database that stores data on documents like JSON with a flexible schema.
- It means you can keep your records without worrying about data structure such as number of fields or types of storage fields. MongoDB documents are similar to JSON objects.
- Divided under the NoSQL website (Not just SQL) because data storage and retrieval in MongoDB is not in the table type.

#### C. ELASTIC SEARCH

Allows you to save, search, and analyze large amounts of data quickly and close in real time and retrieve responses in milliseconds. It is able to gain quick search results because instead of searching directly for the text, it searches the index. Expandable search is used for many different application scenarios for full text search, statistical store, automated filler, spell checker, warning engine, and general purpose store. Elastic Search is a document-focused website. Every graph of the item you want to search needs to be included in the index, so before identifying your documents, they should be made in normalization.

#### D. Image Compression Algorithm

- Images that does not lose the data compression class that allows original data to be completely reconstructed from compressed data.
- No data has been extracted, but it has been reconfigured to make it more efficient.
- It can be done with run length encoding (RLE) and Replaces duplicate data ('running') with a combination of frequency / data.
- What is a Lost Image Pressure and How It Works. Non-loss compression means you reduce image size without losing quality. Typically, this is achieved by removing unnecessary metadata from JPEG and PNG files.
- WebP is a good choice for lost images as it easily wins PNG when it comes to efficiency of compression, with 41% smaller images on average. It is also widely supported in web browsers and other software. WebP files are also faster encrypted, taking about 3 seconds to compress.

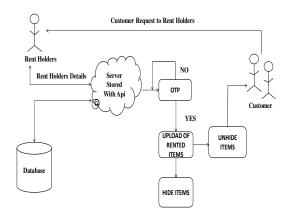




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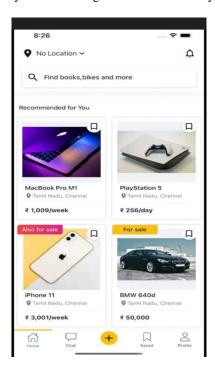
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#### IV. DESIGN & IMPLEMENTATION

This paper is about transportation services. The purpose of this program is to make daily life easier and more effective with the blessings of technology. This is a car-related program that helps you find new and used cars for sale, buy, rent them near you and direct you to car care centers. A wide set of filters and filter options limit a person's choice to find the right car, which saves both time and work. This system makes buying, selling, and renting cars easier by allowing one to quickly access information about a car with a contact number. This program displays resources such as buying, selling, renting and repairing. Users are able to install an application using the login option and use the services by filling in the required fields. User information and vehicle information will be added to the website and may not be retrieved. The result of this program is very useful for targeted users and is very easy to use.



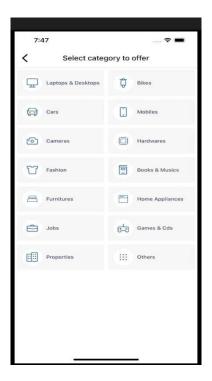
the login page of the mobile application which includes the name of the application called Rento and to fill in the user's personal details, the log in button as well as the save info checkbox to save the in its respectivetextboxes and shows the main menu page of themobile application where users can choose any of the category available to rent which are cars, electronic devices, bikes etc...



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When you click on a product image you can see about the product rental price per day. A product listing page is a page that introduces a list of products based on a category or search query. This page is an important part of app development as it engages site visitors to product information pages and is nearing conversion.



#### V. CONCLUSION

This paper is about transportation services. The purpose of this program is to make daily life easier and more effective with the blessings of technology. Hiring is a very important factor in everyday life too, it becomes a major part of the future. Therefore, the goal is to develop such an online buying, selling and hiring system that will be a solution to real-time problems inside and outside the city of Chennai. The system will be developed as a regular forum for both buyers



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and sellers in rental items. Also, for those who want to rent a car they order a car. Features will provide opportunities for anyone familiar with technologies such as mobile or computer Buying, Selling or Renting items.

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