**Review Of A Research Paper & New Idea Generation**

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**Research Paper Name:** Rental Service Server And Rental Service System

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**Summary**

This research paper is mainly based on a rental service server includes a storage unit, search unit, and track rental unit. They are talking about a system through which all the activities of a rental shop can be brought online and their rental products can be tracked with a well-maintained database. They also provide a detailed description of the structure of the back-end database of an online rental website and also include some automation in their database. They will keep the information of all the users in their system along with the tracking information of the rented product which will be tracked through the radio signal. This system will inform the user and the owner of the product about the location of the product through radio tracking based on the information of the user in their database and the information of the shop. For example, if the product is returned at the time of return or the product has not been returned yet or the product is returned to the store and this product will be automatically added to the product list of the store and will be eligible for re-rental. They will also have the option of voice search in their system as they have mainly focused on music CDs, DVD rental systems, and through this voice search, users can easily find the DVD of their favorite song. Also, their system has services needed to provide rental services such as payment gateways, user communication systems, etc.

**Error/Fault Identification**

The main problem with their system is that they use local radio signals for product tracking. But this is not a very good way to track any product. Besides, this tracking method is expensive. Moreover, they have made this system only for the convenience of the work of the rental shop. No one outside will be able to rent their products here without a rental shop.

**New Idea Generation**

Here we are going to build a platform to ease the shopping and rental services for the customers through online and to create a convenient and easy-to-use web application for customers, trying to connect those people or businessmen who want to sell new products and people who want to buy a new product. Also, connect those people or businessmen who want to let out their products for more profit and people who want to rent a product to meet the temporary needs by spending less money. The system is based on a relational database with its customer’s details, product details, order information, and rental information. Above all, we hope to provide a comfortable user experience for rental service along with the best return policies.

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**Summary**

“RENTAL SERVICE SERVER AND RENTAL SERVICE SYSTEM”, this paper’s proposed system mainly focuses on a rental service system which improves user-friendliness in rental services of videotapes, CDs, DVDs, and the like. Basically, when the user wants to rent a product (whatever the product be) from a rental shop, he/she visits the rental shop, selects a product to be viewed from the more available huge or vast collection of products. Sometimes A product the user vaguely wants to rent but cannot specify is an example: a program that has been viewed on TV but can be recognized only upon actually viewing it as the title is unknown. Customers have to face different kinds of difficulty. This “Rental System” focused on the user’s perspective and made a system that would help them to find and rent their desired product more conveniently and efficiently.

The mail service system is used for rental, sending conditions for the e-mail containing information on a rental product item are stored on the rental shop side together with member information. After satisfaction, the mail can be sent to the customer. Reservation of a rental product item is accepted, and when the product item becomes rentable, e-mail to this effect can be sent. When a rented product is returned, e-mail representing that a reserved product becomes rentable can be sent to the terminal of the member who has requested the product. Rental reservation of a product, notification of information, authentication of fee payment, and the like can be performed at a remote place by using a cellphone.

In DB, they used a rental flag to identify whether a target product has been rented. The rental flag is set to “1” (ON) when a target product has been rented, and “O'” (OFF) when it is not rented and is available. RFID information represents signal information output from a radio tag added to a rental product, and the rental type is information for identifying the type of rental. The member-based on the member ID of a member who has reserved a product acquires a corresponding mail address and transmits to the mail address a rental enable notification representing that the reserved product becomes rentable.

Their communication line is an arbitrary preferable public line, commercial line, or dedicated line which was conventionally been known. Two or more devices and the rental service server can be connected by the same or separate communication lines.

**Error/Fault Identification & Possible Solvency**

They developed a much better online rental system according to their time. But from my standpoint, some limitation of the paper is:

* The organization's communication line may be busy or may not work when the customer is calling to make a reservation.
* There may accrue duplicated reservation of the same product.
* Limiting their service to the local domain only.
* They used radiofrequency for identifying and location tracking their products. But RFID tags and labels are very specific to the type of material and size of assets. For example, metal will deactivate the RFID antenna and the tag will not transmit at all. They will not be able to identify and locate their product.

It would be better if the below features were present in their system:

* The module of online payment in the new system using the SIMTEL electronic card.
* Google map in order to improve functionality.
* It would be better if they used GPS instead of RFID because GPS can directly notify one, on his/her computer, smartphone, or tablet where the tracker is, in real-time. This is a HUGE benefit over the RFID. So, one needs not wasting time actively searching where the “tag” is located. Depending on where one is located in proximity to the tag, he/she may have to search for a while in order to find it.
* Finally, one thing that would be best, again mentioning that they developed a better online rental system according to their time but they did it only for rental services of videotapes, CDs, DVDs, and the like. They should have added more different kinds of products which would be more beneficial to their business.

**New Idea Generation**

Based on the previous statement that “They should have added more different kinds of products which would be more beneficial to their business.” I want to develop a system that will be a platform for customers or sellers who want to sell or rent any kind of product and people who want to buy or rent different products. The system will connect those sellers and buyers who want to rent their products for more profit and people who want to rent a product to carry out the necessary needs by spending less. The system will have 24/7-hour customer support, GPS location tracking system for the product, new online payment system.

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**Summary**

This project was about the rental service server and rental service system. In this project, they have divided the rental service server into two parts: storage unit and search unit. Storage unit stores products, information of products, customer’s information, rental status, description of all products, etc. and the search unit mainly compare the received clue to find a product for rent. Here they discussed the system to give rent Tape recorder, Videotape, CD, DVD, etc. and also discussed the point of view of customers.

In this process, customers can search for his desire product or can choose a new product he is impressed by the given information about the product. Then he/she can see if the product is available or not? If the product is not available at that time, then the server will show when the product will be available. So, if the customer wants to wait for that product, he will be notified through email when the product will be available.

The process was automated and performed using a computer. The computer will help to choose/find products, calculate the rent fare, discounts, etc. So, the procedure is faster. Here they described how the registration process will work, how will it work for more than one shop in this server or plural user distribution too.

**Error/Fault Identification**

1. This model of rental service server is only described with videotape, CD, or DVD.
2. There is no process for other products.
3. There is no chance to let another important service for rent.

**New Idea Generation**

We can add more features like, we can add other types of products to rent. Their server is more complicated. We can make it more user-friendly. We can add delivery support for the rented product. The registration process is too lengthy here. It can be shortened. A very interesting and profitable feature can be added which is: People can give their likely new unused goods for rent. We all use some products for once or a very few times. After that, we store that forever. But if it is possible to give that product to rent another person can use that at a cheaper fare not buying a new one. On the other hand, the owner will be profited.

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**Summary**

To make rental services more advanced and friendly, a storage unit and a search unit will be added to a rental services server. The storage unit stores product identification information and at least one feature information for representing whether a rental product has been rented and also representing whether the rental product has been reserved. From one user terminal, a search unit receives rental product identification information and product feature information, searches the storage unit under the search condition and output product information and rental product status.

**Error/Fault Identification**

1. If more than one product has the same product identification and feature identification, a problem may arise.

2. The rental product cannot be specified based on audio information alone.

3. When a DVD movie is searched, the original book of the movie and the DVD of a stage having the same contents as those can be displayed together that is a great problem.

4. Music information or video information can be distributed by downloading or streaming from the rental service server. Nowadays people prefer video information to audio information.

5. There need to be some rules for disadvantages to the member who has reserved.

6. The user can confirm the information on two or more rental shop for a product two be rented and easily reservation two or more rental shop. Reservation two or more rental shops that create problems.

**New Idea Generation**

Bangladesh is a developing country. This country is moving very fast in terms of information and communication technology. Many people will benefit if rental services are introduced here. People will able to rent things at a low cost from rental service. You will be able to reserve items online at home with the necessary information. Also, some shopkeepers and some common people will be able to earn money by renting things. And this rental service will have adequate security of human belongings. Therefore, people will benefit a lot of rental services is introduced.

**New Combined Idea Generation**

At present, we need a lot of things to keep going. Maybe the needs are temporary but useful. But we cannot buy those items for lack of money or we waste money on temporary needs.  
And many who need money now and he might have something that is not very useful to him now. Maybe he wants to sell it, but maybe later that thing can be useful to him. What should he do now?  
Others who have started or are going to start a small business. Most of them have low capital so they cannot be able to grow their business properly. If they want, they can grow their businesses by buying some rentable items from their capital and renting them.  
Many large companies that use sample products to promote their products. They can offer these products for rent if they want. In this, as their product is promoted, also they will earn a profit.

Our system will connect those people or businessmen who want to sell new products and people who want to buy a new product. Also, connect those people or businessmen who want to let out their products for more profit and people who want to rent a product to meet the temporary needs by spending less money. Here people can sell their new or old products and if they want, they can make more money by renting them. On the other hand, here people can meet their temporary needs by renting a product spending less money. This will benefit both parties. Actually, our system is a combined platform for all kinds of e-commerce and rental service with a comfortable user experience for rental service along with the best return policies. Also, the system will have 24/7-hour customer support, GPS location tracking system for the product, new online payment system.

Before using our platform, every user has to register using their personal information, photo of NID Card, and user’s picture. We will then verify all the information which the user has provided and after the verification is done, the user will be able to use our services.

After complete registration user can find four options (Sell An Item, Offer A Property For Rent, Find Property For Rent, Find Something For Buy**).** Then the user selects their choice and to reach their objective, they have to follow some steps.

Those who want to rent their products will be able to set the condition for the return of those products. There will be a compensation amount for his product and the person who uses his goods for rent will be obliged to compensate the owner if he or she does anything.

If anyone wants to sell their product after renting it, then they will have to select the “Want To Sell After Rent” option in the product details page and if the consumer wants to buy these products after using them for rent, they will be able to do so.

If someone refuses to return the rented product, the owner of the product can able to complain against it and we will take legal action against him.

Bikroy.com, Cellbazaar.com, BDbazar24.com, Buysellbazar24.com, Kroybikroy.com are some related work but only old things can be sold here. But in our system, people can able to sell, rent, and buy all kinds of new and old products. Recently Bikroy.com added rental service but their rental services are limited. They only provide property rental service but we provide a lot of more rental services like Car Rental, Bicycle & Motorbike rental, Clothing and Formal Wear Rental, Book Rental, Tent Rental, Medical Supply Rental, Accessory Rental, Tech Rental and lot more.