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SEARCH AMBIANCE

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Abstract: The e-commerce platform has been increased enormously in the fields like furniture, fashion and electronics. Fields like furniture, there are multiple online sites for shopping first hand furniture, second hand furniture and renting it. But the ambiguity is that there is no online shopping site comprising all of these. However, if a site has first-hand furniture and secondhand furniture there will not be an option for renting the furniture or vice versa.

"Furniture is a soul of the house it gives a sense of fulfilling of needs. Types of furniture are of many designs and categories. It can be as small as mouse to as gigantic as elephant".

The idea is to create a platform for customers to purchase or select products from first hand, second hand and rentals (especially during occasions).

Search Ambiance is a platform designed to provide first hand, second hand as well as rental furniture online. It is full-fledged web application which is a collaborated website which allows user to buy and sell furniture.

Search Ambiance allows users to rent or purchase occasional furniture such has canopies, chairs, tables, stage and party decorations online.

People might be searching furniture during occasions which may not be available in their house. This system may help people to get specified furniture for specified occasion. People prefer searching in internet for different websites than going to the main shops just for canvassing or choosing for the product they want to buy or purchase.

I. INTRODUCTION

Use of web Technology and server in E commerce sector provided a different dimension to marketing practice by which furniture company's responsibilities substantially increased to protect the furniture sales from brokers and middlemen and supply them public. This website plays an important role in connecting first hand owners or second-hand owners or rental owners with users by eliminating the brokers or middlemen or retailer. Scope also spreads to by connecting nearest users with nearest owners or sellers, where the application plays an adaptive role in connecting people on search and distance basis. The search engine should always have faster and reliable searching processing. It also helps to process search on basis of distance and location.

The primary objective of this web application is to provide the details for booking furniture from the nearest location or the nearest shops. This system helps in search analysis and finds the nearest shop. This application is very useful for people who rent furniture and needs furniture from the nearby shops. The search analysis helps user to get the details of various furniture. People can save time and look for many options sitting in one place. Website can be used in laptops and android phones which is more portable and user friendly. So, we created this system for the convenience of the costumers. Various research has been published and a lot of efforts have been done in the last few years to establish digital markets using latest web technologies for the convenience of users.

Using Latest web development technologies, we can make a user-friendly application which will be reached worldwide. Applications developed using web

technologies are portable and can be used in android phones, laptops and computers.

II. LITERATURE REVIEW:

Furniture Management System

Processing and managing enormous amount of furniture requests based on user requirements is practically very tedious process. While processing the search generally there are chances to show furniture availability of only fresh furniture (first hand furniture) or used furniture (second hand) or rental furniture. The combination search of all three furniture is not available in single platform. This existing problem in furniture booking is further sub-divided into multiple problems like travel expenses or difficult to return due to long distance, middlemen and many more. Therefore, it would benefit many customers worldwide if there exist platform where customers can get in touch with all three different furniture modules at the same time so that customer can get a knowledge weather to buy or rent furniture.

1. First hand Owner: Is basically Furniture Company, who sells fresh or new furniture.
2. Second Hand Owner: Is basically the owner of used furniture, who sells the used furniture
3. Rental Owner: Is basically the owner of rental furniture, Who rentals furniture for occasions.
4. User: Is a basically the person who purchase either fresh/new furniture or used furniture or rents furniture for occasion.

Module Design

This system basically composed of three main high-level modules as mentioned below. Each of these modules in turn broke down into multiple sub modules.

1. Customer Management

All information of customers is recorded and stored for further processing. The orders of customers are analysed and scheduled depending upon their requirements. Customers are further classified into first hand, second hand and rental customers. Customers are categorised depending upon their needs and requirements. Rental owners are recognised and classified and their requirements are analysed and linked to the rental owner how is matched with requirements of the customers. Similarly, second hand and first-hand customers are also linked with the required owner depending upon their necessity or requirements. System takes in the necessary information of the customer such has the name, age, address and generates the required id. This would be required for further processing during their order.

2. Owner Management

All information of owner is recorded and stored for further processing. The owners are scheduled with orders. The owner gets the order depending on the customer requirements. The system automatically schedules the order to the owners by analysis of the requirements of the customer. Owners are also classified depending on whether they are first hand, second hand or rental owner. All Owners are scheduled with equal number of orders. All the owners get the equal opportunity to sell their furniture to the customers. Every owner is scheduled with orders. Owner details such has name, age, address is collected by the system and processed.

3. Order Process

The system takes orders from the customers and schedule it to the owners. All the owners who log in to the site gets the orders. Since the orders are scheduled equally to all the owners. Customers' requirements are analysed and depending upon the requirements the orders for the owners are scheduled and tasked. All the required inputs are taken from the customers and stored in the system and analysed and scheduled automatically by the system. These main modules are further composed of following sub modules.

- Order Date - This module takes in the order date from the customer.
- Furniture Enquiry - Module that acts as a furniture information repository and handles all incoming furniture access requests.
- Furniture Orders Profile - is created and displayed for the customer to get the details such has furniture owner name, contact number, address etc.

4. Order Scheduling process

Auto scheduling of the order by the system so that all the owners get equal opportunity to sell their furniture or to rent their furniture to the customers. All the owners who sign up to the site get the equal opportunity to participate in the site and earn their income. It is an intermediary site which leads the business of ecommerce and helps all the owner get equal number of orders.

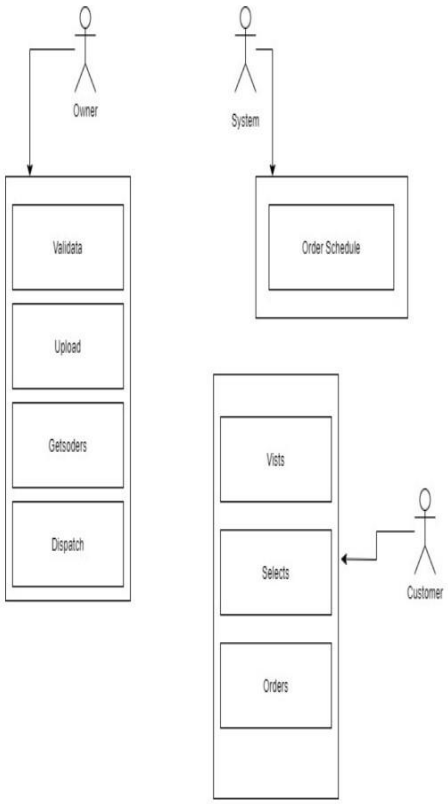
Procedural Design 1. User Interface design

The Search Ambiance is being designed for the following Furniture customers and furniture owner, which provides customers as well as the owner specific interface feature to perform role scheduled based tasks.

- First hand customer: First hand customer is the primary user of this application, who accesses this application to order the furniture such has tables, chairs, sofa etc. customer purchases the fresh furniture directly.
- Second hand customer: Second hand customer is also the primary user of this application, who accesses this application to order the used furniture such has tables, chairs, sofa etc. customer purchases the used furniture from the customer who has already purchased and no longer needs it.
- Rental customer: Rental customer is also the primary user of this application, who accesses this application to rent the furniture such has tables, chairs, sofa etc. customer rents the furniture for a short period of time.
- First hand owner: First hand owner is a person

who sells first hand furniture online.

- Second hand owner: second hand owner is basically the customer who sells furniture which are no more needed for them.
- Rental owner: Rental owner is a person who rents furniture for a specific period of time.
- Furniture repository: It is a list of different categories of furniture that are available for sale or rent.



The above diagram depicts the overall system composed of different modules and associated user interface screens and forms associated with corresponding functionality.
Customer can basically perform the functions that clearly mapped with his roles and responsivities hence a dedicated access level and UI is given, similarly owner is given with specific feature set and access levels.

Report Design

The structure of the reports that will be generated by the system

The system basically collaborates with multiple interconnected people such has first-hand/second hand/rental owners as well as customers. It is a collaborative site that helps to connect all three different people in single platform. It also schedules orders so that every

owner gets equal opportunity to sell their furniture. This system also e-commerce platform which helps to trade furniture and also helps to rent furniture in the same site. It removes the middle men and brokers who involve during purchase and sales and helps the customer gets direct contact with the owners.

Inputs given to generate the report

- Furniture order
- Customer details
- Owner details
- Furniture details
- Customer requirements
- Account details
- Duration

Output fields in the generated report

- Furniture category
- Orders
- Duration
- Order scheduling

Implementation Approaches

During the implementation of this application faced multiple challenges and hurdles during the initial stages of the system designing and implementation. Implementing
various technologies and concepts like task scheduling and web technology helped understanding the user requirements. Testing is done at the multiple frames. Testing is extensively done at various stages of development process and testing life cycle, making sure quality application is delivered that helps customer get required furniture.

Below brief information tells the stages of implementing this solution.

- Gathering the customer as well as the owner information and storing it in a store.
- Modules derived from the data researched.
- Parallel research on the task-scheduling the owners based on the random allocation.
- Then database was designed to connect all the modules and created the user interface.
- All the components finally merged together to create the application.

The initial prototype was implemented with mere requirements from the clients which in turn took multiple turns to attain a stable application. Requirements kept on changing since the project is huge and has high impact on real-time use, all

requirements were kept at its priority levels and addressed consecutively over the time. Multiple teams across multiple locations worked on specific modules and features of this applications.
Each feature implementation went into content review where the analysed requirement is reviewed, then Solution Review is done to review the proposed solution for the feature, Code Review basically happens to check the designed code standards and feasibility, Then the code is adopted and testing begins.

Unit Testing

Unit testing was basically performed by the developer during and after the feature or UI element implementation and appropriate action was taken. This process or phase involved identifying all the units that were being developed and making sure they are displayed and behaves as expected under different user interaction inputs. Since this application contains three main modules and multiple sub modules, so many elements, forms and other objects being used to build the interface and function which in turn resulted in big unit testing curve.
Example 1: Logon button – Logon button was tested with all the possible positive and negative testing scenario to check if it works well all the time.
Example 2: Sign up button – Sign up button was tested with all possible validations such has email, integer and variable validations.

Integration Testing

This is the testing phase where all the developed individual components of the application are glued together to see if it functionally works fine. This system is made up of modules like Seller and Customer who needs to talk to each other in getting the services done from each. And this basically involves interaction that usually occurs while integrating two different things which may arise due to change of code or functional behaviour and this was tested.
This testing was done by the tester.

Example 1: Accessing furniture details is done by the cart module from the customer, so these two interface interactions were tested to check nothing was interrupted.
Example 2: upload module and cart modules are coupled together each accesses information from the other while processing the furniture from the seller. And this was tested with system testing test case to check nothing was broken or impacted in the functionality.

III. CONCLUSION

The idea of designing this application is to reach people world-wide within less time. This web application helps retail sellers by uploading furniture and lending them to customers who require them, which in turn benefits customers as well as retail sellers and renters to wide their business and earn small scale profit. It helps the customers to buy furniture online rather than going in search of furniture. User can not only buy but can also get rental as well as used furniture. User can return the used furniture so that it would be helpful for customers who require it. User will get suggestions weather to buy or to rent based on their requirements. Our platform is available on smart phones, tablets and laptops so its very easy to buy or sell furniture sitting in home without intermediaries or brokers. Our ecommerce platform reaches every customer within less time and less cost.

IV. FUTURE WORK

In developing countries like India people use smart phones rather than pcs and laptops and scope of the future project may include mobile application since it is handier and people prefer using smart phones more than laptops and pcs. Also, some features such has new arrivals and discount sales for bulk furniture orders would be implemented.

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