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Campus Second-Hand Buy and Sell Application

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Abstract: The rise and development of Internet led us to a period, and brought all of us to a very convenience life, shopping and selling on the internet has gradually risen to the mainstream and become an important part of students life, Student are not very good at handling the resources which led to the waste of the resources and economic loss also, based on this we designed campus second-hand buy and sell application system for the convenience of the students which provides them information browsing, online communication and background data management system and along with it some other functions. It provides a quick and hassle free online second-hand buy and sell platform which helps students realize the value of second-hand items and let them access cheap and satisfied second-hand products. It is environmental helps to reduce e waste as well as economical with great practical values.

Keywords: Campus second-hand products; Online selling; Application system; E-commerce website; Internet; online shopping

I. INTRODUCTION

As you know our country is going digital and everything is going online nowadays, and along with this online shopping is becoming popular day by day and has become a part of people's life. Current generation is actively a part of it. This is because everything is available online, one can easily get their needs at their doorstep.

This ultimately helps smaller businesses to go online which results in increased sale and increased profit for the seller and provide employment for the individuals which eventually helps to rise the economy of our country. Online shopping is giving many opportunities to individuals, which helps to establish many small and large business in our country, these sites include many features like tracking the order to pay on delivery (once the delivery is assured after that you can pay) and easy return policy and a good customer service for solving the customer problems. But most of these sites only provide new things to the customers or refurbished items to their customers.

But sometimes new things are too costly for new individual or student. There are many platforms for second hand buy and sale like eBay, OLX etc. But here in India they are not so popular because of security, trust issues and price issues. This is a big problem specially for students. Sometimes there are such little things which are not available separately on online platforms for example laptop charger, kettle, second-hand keyboards etc. so, for solving this problem specially for students we created a platform for second-hand buy & sell from other students.

II. DESCRIPTION

Our project is basically for students for completing their needs with less money or resources, we are providing an online platform to students which is made for solving the problem for students Who wants to purchase or sell second-hand products from other students. There are just few sites who provide this facility to people. But these services are very costly because of involvement of third part between buyer and seller. Which results in waste of money and time for the individual.To solve this, we created a second-hand buy & sell online platform for college students. which ultimately helps them effectively use their resources, save cost and time. Also, for solving the problem of trust and security for the students this platform is available for college students only so that buyer and seller can contact each other and get their needs fulfilled.

III. FEASIBILITY ANALYSIS

A. Technical

Nowadays Everybody have laptops, or desktop computers. It is so easy to access internet and create new things. From the aspect of student of computer science, we can create animated and elegant web pages independently using just HTML and creating tools

B. Operational

The user interface of this platform is user friendly. One has to login with their email and password. User interface is easy to understand and simple for operations as well as neat and beautiful. User just need a desktop or laptop to browse the web and access the website.

C. Economic

The cost of the system lies into the software development, website only requires one to have a laptop or computer to browse the web. The focus of this project are college students, who can buy and sell products at low cost and can also save the resources with even little savings, if everyone shares resources and makes full use of this online platform, better the resources are used and therefore, it is feasible in economy.

IV. SYSTEM FUNCTION AND DESIGN

Campus-kart is a second-hand buy and sell platform for the college students, it is basically a small e-commerce website which provides a good buying and selling experience for the college students.

College students use this website to surf through various products online on the website, favourite category, and the order information, if you like any product you can add it and buy it from the seller directly, you can also check the seller information which is provided with the product for the easy communication.

In administrator section/module, there is the authentication/identification of the administrator with good security so no otherperson can access the system, user management, Product and details management, User id and information management and there we can also upgrade and manage the system on regular basis.

B. Security requirements:users choose to buy and sell category, no right to view/buy or sell until not logged in; with no right to modify and delete the items on the system, Only System administrator can modify and change the order information and details of the user after log-in

C. user can only purchase or sell the items after register or log-in, System will first authenticate identity of the user from the database.

Thewhole system/application design focuses on three parts buyers, sellers, and administrator.

V. FUNCTIONAL OPERATION PROCESS DESIGN

First enter the Register/login screen, enter the email id and password, transfer the date to the server and match for the credentials present into the database. If the match is successful with the database login the user and jump user to the website interface to let user use services of the website If the match is not found in database list a message incorrect id and passwordand jump user to the register page.

A. Register/Login User Add Data Process

Let user first enter the details, automatically generate response to it, input user data and system check its authenticity and legitimacy. If legal, write and store it inside the database, If not match/legal prompt user input is incorrect,ask user to input the data again into the section.

B. Data Modification For Seller

Select the product to modify, check if the data of seller is legal match with the database, if legal enter new data for the product, If not legal enter correct data until the provided data is legal.

C. Deleting Product Data

Show the option 'want to delete the product data' only if the data is legal else show please input correct data.

VI. SYSTEM DESIGN IN DETAIL

A. System specifications and Diagram

Users have id's, passwords, phone no and other details which are necessary for the authentication purpose and generated automatically into the database ID, along with it there is separate section for the seller which includes name, address, contact details, image of product, description about the product, pricing of the product, and all of these associated with the product ID.

Buyer information is relatively simple compared to seller whose main work is to log-in or register on the website, select and adding items into the cart and managing the products listed. As shown in the diagram below.
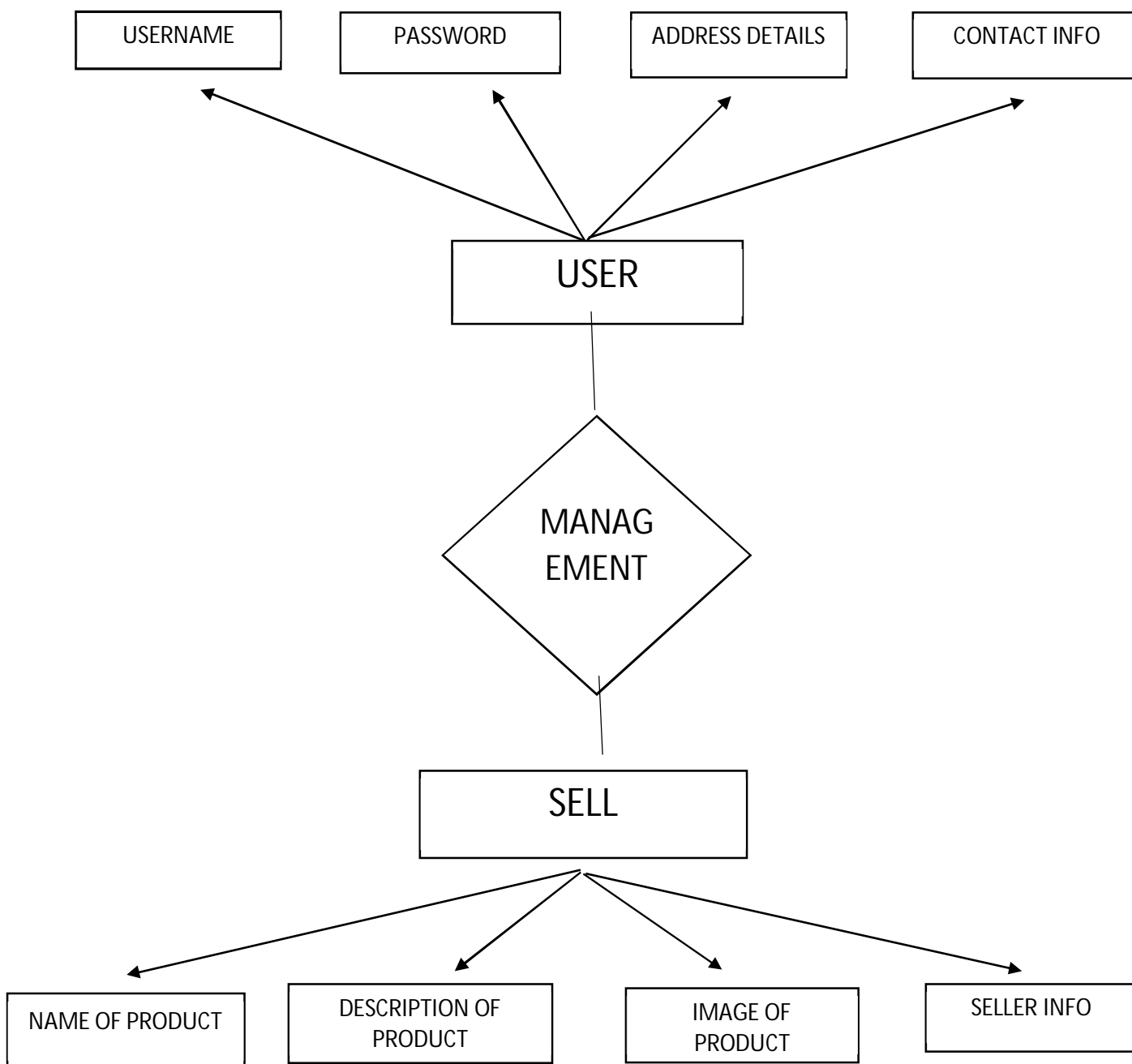
B. Database Design

Every application, website etc. on the internet uses the process of common web development practice which is use of the database. This system is using the Firebase database, which is easy to manage NOSQL database,there are no Tables and rows, instead of that data is stored into documents which are organized into collections. Where each document has key-value pairs, firebase is basically well optimized for the mass collection of small documents.

All Firebase Realtime data is stored in JSON object, it is basically a database as a cloud-hosted JSON tree. When your data to the database it becomes a node in the existing JSON structure with an associated key or you can your key which meeting the requirements for the database.

Firebase Database Functioning: -
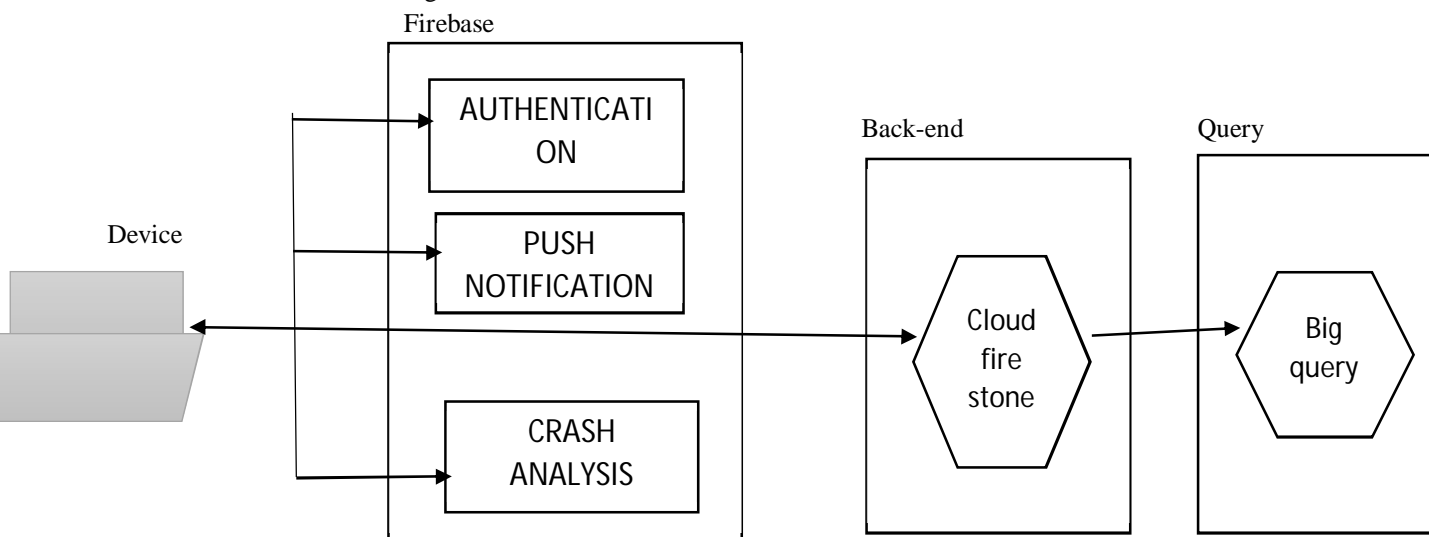
C. Database Connectivity

The firebase Realtime database is a cloud hosted real time NO SQL database which helps and enables data to be stored between users in real time. The data of the application is stored into this cloud database and saved in the form of documents, for accessing the data of user it will assign a user id to each registered user and product and we can connect to it anytime even the website is live or not. The data of the clients synced in real time is stored into it and still available when the website goes offline.

D. Database Connection Diagram
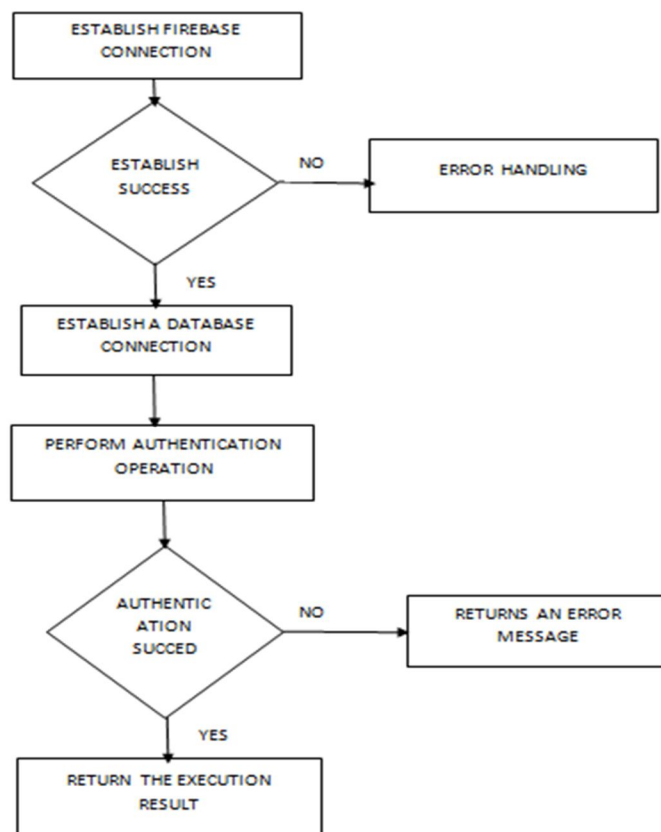
E. System Interface and Design

1) *User Registration:* New user must first register into our website using mail id, password etc. after successful registration user is now logged-in and free to use services; we also have the solution for forget password for the user if lost we can retrieve it for the user.

2) *Seller-Product Upload:* To upload second-hand products on the website seller, need to fill the required details of the product which he/she wants to sell, including name, classification, category. The category is based on the available options for the seller to fill in order let the interested person have more understanding of the product. And provide ahassle-free experience to the buyer along with these a good description of the product, condition of the product, price of the product and seller must upload a good image of the product.

3) *System Management and Design:* After clicking the log-in user needs to fill up the required details mail id and password for authentication purpose and in case of forget password, we will send verification code to the registered mail id so one can easily retrieve the password. The website interface is consisting of three sections after log-in which are sell for the seller quick menu where one can easily go through what is available on the site as well as fresh recommendations and the footer is consist of our availability in popular locations and our social media handles where one can get updates regarding out services.

System homepage has three sections categories, Fresh recommendations, and search through popular categories like books, laptops, electric items etc. so that one can easily browse through these categories according to their needs. The page is concise and clear and consist of main banner on site for latest updates on the site and on the top, there is search bar for searching the products on the site according to one's needs and on the top right side there is sell button for the user for selling the products, in the middle of the site there is section quick menu for product recommendation to user based on their interest where user can view or like the product, in the bottom of the site there is section of fresh recommendation which shows products which are newly introduced to the website and shows based on the feed of the user using the artificial intelligence.

There is also a different section for the seller where seller can list their product on our website

For that seller must fill different sections which are name of the product, price of the product and a well-defined description of the product, condition of the product and must select the category for the product along with a good image of the product, after filling this detail the product is uploaded and data is submitted in database of the website.

In system interface html code, there we linked the logo of our site using the path for running the website we linked the JS using the link and other tags into html, meta charset is set to utf8, and width is set to width=device-width for view in every device and every resolution.

VII. CONCLUSION

The rise and development of internet completely changed the life of many people and brings a lot of convenience. This system is a developed second hand buying and selling site for the students which uses the internet for its service to the users, It provides a good and high end online buy and selling platform for the students which is convenient as well as time saving for the students and let them use this according to their needs. Cost affordable, time saving, provide hassle free experience to the students and make reasonable use of the available resources.

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