Home Services Management System

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***Abstract*:- In present scenario, people are buried up in a heavy work culture, as everyone is engaged with busy schedules, and hectic tasks which make them deviate from family life. If any issues encounter unexpectedly, it distracts them and makes them choose over the work they have to accomplish primarily. It is important to manage both professional and family life. In such circumstances,every one of us would have fantasized about a kind of house which doesn't have any leaks in pipes, if it doesn't have any mess in fixing a furniture and a kind of house which never face any maintenance issues and every one of us have thought that a life would be much better if no point of issue arises in getting a service at your door step and if there is no mess in bargaining a labor for home service. In such situation'sE-Commerce plays a vital role in today's life as it has so many advantages in our life because it makes convenient in daily life of the people [1].**

So, giving a thought to that aspect of life is to design and develop a system that provides many services at your doorstep in just one click. A System that provides variety of services like plumbers, movers and packers, repair persons, cleaners, electricians, painters, taxi service laundry and many more. To make it comfortable for all the users our system also provides a mobile environment which offers ease in accessing our services. A very simple process is carried out to book a service(s), and our system is specialized with providing a confirmation email about the selected service. People can choose the particularity of service required by uploading the image of desired specification. System is versatile as service can be booked from everywhere to anywhere you desire.

General Terms:- Services, Authentication, Customers, Registration

Keywords:- Credentials, Payment Gateway, Web Portal.

1. INTRODUCTION

When someone need aid with small but major household tasks, the trouble arises when service skilled persons are unavailable or the trusted providers are impossible to find, who delivers consistently flawless service on instance. Our online system for household services provides the most expedient and annoys free way to get your domestic work done. We aim to help in providing optimal solutions to all your household troubles with more efficiency, ease and majorly, a delicate touch. A single click system describes booking highly skilled in-house professionals and gets your servicedone on time. Customers' overall willingness to pay is significantly and positively correlated with the expectation that fee-based services would be better, and with the belief that "pay for what you get" is the right thing to do [2]. Keeping that in sense our proposed system is basically a marketplace for household services and it is the platform where the rates were standardized and there is no necessitate haggling over prices. Several aspects like painting, pest control, home cleaning, plumbing, electrical works and carpentry services are involved in a system toprovide happy and healthy home atmosphere in order to satisfy consumers.

2. OBJECTIVES

The primary objective of the online system for household services is about delivering the home services at the door step just by one click. This paper discusses about main theme of the online home services, numerous services provided and how the ordering and delivery of services takes place.Online system for household services can be used by any authorized user intending to seek for household services through an ingenious web based system or a mobile application. To provide an authenticated and authorized login module for the users such as service seekers, service providers and the admin, by providing appropriate credentials at the time of registration. To develop a web based online system for opting household services and to develop an identical mobile application for opting the services. To design a interactive User Interface for seeking services on the go.

3.SYSTEM REQUIREMENTS

3.1. Hardware Requirements

SERVER SIDE	*A hosting service based on cloud from OneSite (Skywalker) is purchased.	
CLIENT SIDE	Processor	Any Processor x86 or x64 supportive to software required.
	Disk Space	25-50 MB (for Browser nstallation)
	RAM	256 MB

Table 1 : Hardware Requirements

3.2Software Requirements

SERVER SIDE	Operating System	Linuxx86_64
	Application software	PhpMyAdmin, cPanel 64.0 (build 19)
SERVER SIDE	Software tool	(HTML, JavaScript, CSS,python,Djanjo)
	Database	S Q L I T E
	Payment Gateway	Any Payment Gateway viz., Papal, Instamojo.
CLIENT SIDE	Operating System	Any Operating system that supports Browser
	Application software	Any JavaScript enabled web Browser

Table 2 : Software Requirements

4. SYSTEM DESIGN

4.1 System Tools

Major Tools used in our system.

4.1.1 SQLite

SQLite is a widely used, self-contained, serverless, and zero-configuration database engine, renowned for its efficiency and simplicity. Unlike traditional database management systems that rely on a server-client architecture, SQLite operates as a single library integrated directly into the application, making it a preferred choice for applications requiring lightweight, fast, and reliable data storage solutions. One of the hallmark features of SQLite is its zero-configuration nature, meaning there are no configuration files to manage, and it does not require any administrative setup. This ease of integration is particularly advantageous for developers who need a hassle-free, embedded database solution. The entire SQLite library is small in size, typically less than 500KB, which is ideal for applications where storage space is limited, such as mobile apps and embedded systems. Despite its small footprint, SQLite delivers robust performance and can handle moderate-sized datasets efficiently. It supports ACID (Atomicity, Consistency, Isolation, Durability) transactions, ensuring that all database operations are completed reliably and maintaining data integrity even in the case of application crashes or power failures. SQLite is highly portable, compatible with various operating systems including Windows, macOS, Linux, iOS, and Android, allowing developers to use it in a wide range of applications from desktop software to mobile apps. Its extensive use in development is evidenced by its role as the default database engine for Android and its widespread adoption in iOS development, web browsers, and many other software applications. In essence, SQLite's simplicity, reliability, and efficiency make it an ideal choice for many applications, particularly those where resources are constrained and ease of use is paramount

4.1.2 Python

A number of dynamic features involved in Python make it an exigent task for both programmers and tools to reason about programs. While features such as the exec function are being discouraged over time, more controlled dynamic features such as dynamic attributes are becoming more prevalent. Initially developed as a simple scripting language, Python has evolved into one of the most widespread programming languages for building server-side web applications. Like other scripting languages, Python includes a number of dynamic language features, such as the eval function to run code provided at runtime as strings, special methods (referred to as magic methods) that handle accesses of object fields and uses of methods that are either not distinct or not evident, and the ability to use expressions instead of literal identifiers to give the names of variables, functions, methods, and classes in new expressions. These features often make the programmer's job easier . Popular frameworks like Django and Flask illustrate the use of dynamic features, magic methods, and eval have changed over time. Django explains trends in the usage of features like variables, function calls, method calls, object creation, and property uses. The major challenge for resolving software configuration errors is to find the violating configuration options, a challenge that is aggravated in multi-layer systems. Multi-layer systems consist of multiple layers, each of which hides the complexity of a lower lay er and has its own objects and configuration mechanisms .In the case of Django (Figure 1), which is currently one of the most popular web frameworks for Python, and a typical example of a multi-layer system consisting of a WSGI stack (Web Server Gateway Interface), the Django application, and several Django plugins. This setup exemplifies the complexities and dynamic nature of modern web development using Python.

4.2 System modules

4.2.1Registration module

Customers who want to avail our services are invited to register for a free account in our portal with few simple steps, by providing valid credentials a customer is requested to confirm account creation. Once they are done with registration, a confirmation mail about a new account with verification link is directed to the Email-id provided. Now a customer is free to use our services when they are done with account verification.

4.2.3 Service Module

When customers want to schedule a service, they can do it by logging in to their account. The portal is specialized with an interactive user interface which provides attractive way of booking a service, where customers are requested to provide the details about the services required. If required customers are asked to upload the pictures of their particulars, if they are confused with any of the services. When done, the request is submitted and it is directed to payment page for the payments to be done.

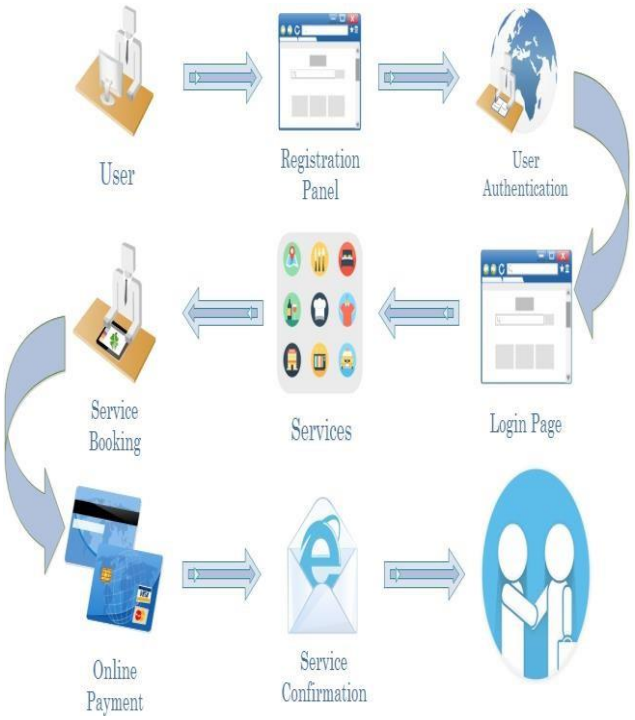
4.2.4Payment Module

Further process is preceded to the next module where the customer needs to pay for the services opted. It is done through an external payment gateway which guarantees a secure and safe transaction. Once the payment is done, a confirmation acknowledgement is forwarded to the user about all the details of services opted and also an onsite confirmation is displayed on the website. When the service is booked and confirmed, service men from our organization will reach you to deliver the service.

The idea proposed in this paper is one among the new innovations where it reduces the trouble for customers to search for the labors and avoids form bargaining to get the profitable services to be done. Once the service is completed our customers are requested to rate the overall service done by our professionals and asked for any valuable feedback or improvements to be done in providing a better service. If the customers are unsatisfied with the service provided then with some valid reasons a return policy is approved, or a re-service may be done to make you feel convenient with our service.

5.Use Case diagram for the proposed model

The Proposed system involves three actors which include a Admin, Service provider, and a Customer. Admin has the beginner rights to access and modify the website where he/she needs to login to do so. Then next to admin comes the customer who wants avail our services should precede with the registration and login process. If required a customer can upload a file that describes about the services. Once the request has been done then he can forward it to payment process and to confirm service after the service has been done a customer can rate the service. And in worst case if the customer is not satisfied with the service they can move with the return policy process. At last a service provider who is the one who provides a service, where they should also go with the registration and login process and they should proceed with files uploaded and once the service is confirmed they are intimated to provide the service and when done after service if the customer is unsatisfied with it based on the customers review if required they should provide the re-service.



Use Case diagram

6.CONCLUSION

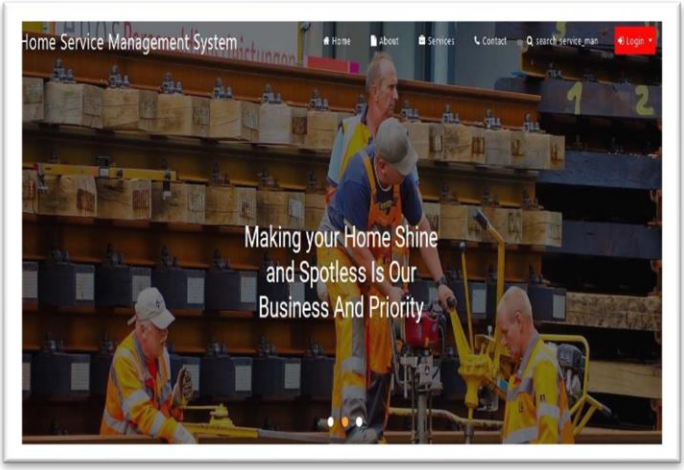
To reduce burden in finding in-house solutions for the services, the proposed system provides several services by providing service specialists at your doorstep in one click. A systematic mobile environment to system clients offers ease in accessing our services in a more comfortable way. With well qualified and background demonstrated professionals we make all your home cleaning, plumbing, furniture maintenance, electrical works, appliance repair, house painting, vehicle service and many other services to be done in a click anytime from anywhere as easy as available.

7.FUTURE SCOPE

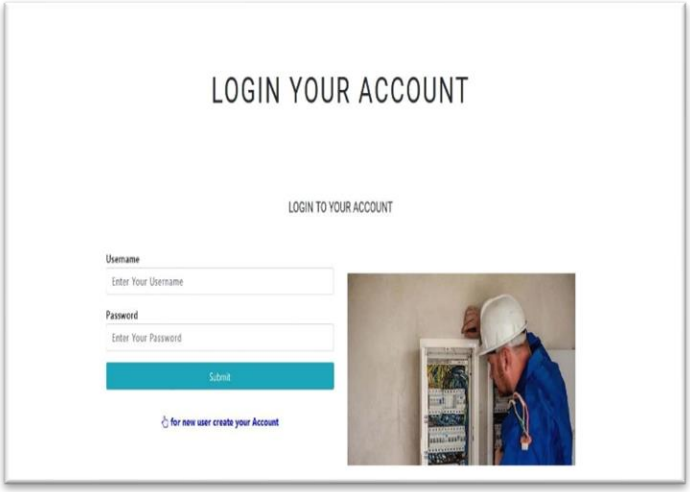
The Home management system application provides some of the home services which are most frequently used. This system accommodates the changing needs of the end user. The overall system can be designed so that its capacity can be increased in response to the further requirements for which the application provides an appropriate service overseas. Further this application can be prolonged by merely adding up the required services and additional payment systems. For example, the current system provides the following services such as home painting, home cleaning, packers and movers, plumber repair and service further the system can be extended as per the requirements of the user. The system can have prolonged by adding the services such as mobile and computer repair, laundry services, catering services and many more. The discussion payment methods our system has, for example currently system has online payment by only MasterCard users further it can be extended by adding the payment services for visa users also.

8.APPENDIX

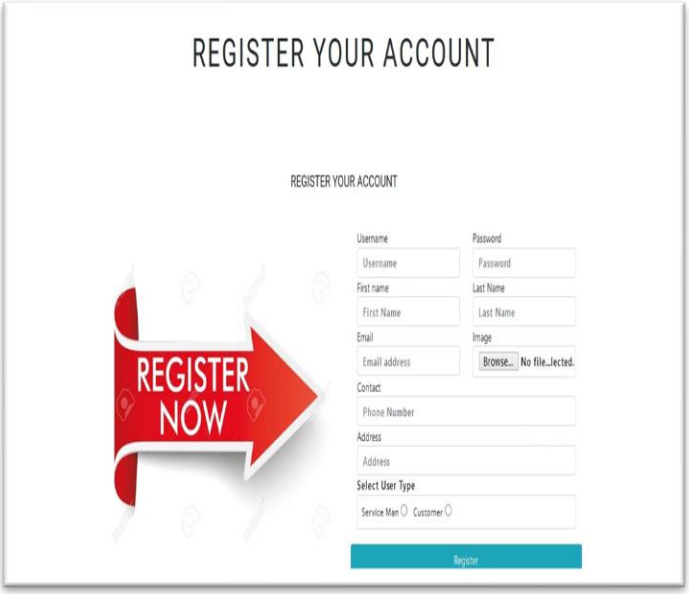
8.1Home Page Page



8.2User Login Page

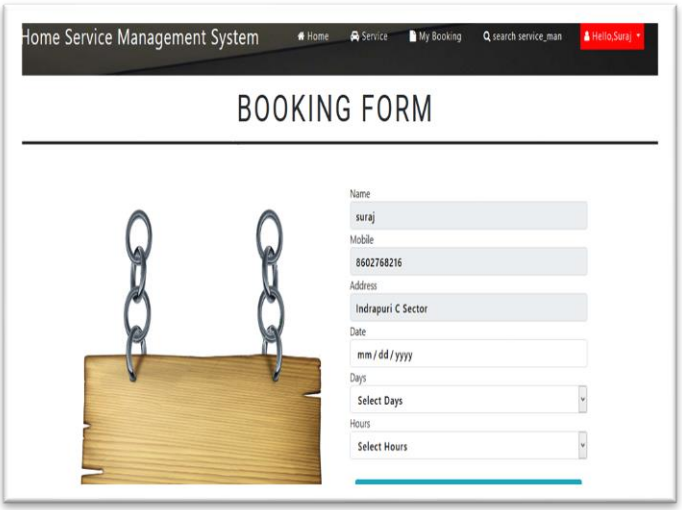


8.3 Registeration Page

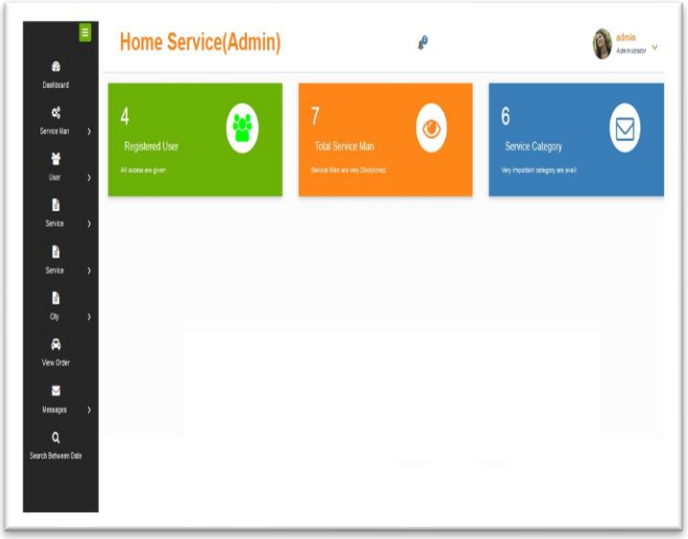


8.4Search Service_Man page

8.5 Booking page



8.6Admin Home Page



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