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# E GAS SEWA

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**Abstract:** To cater to users, a gas agency need efficient data management and customer management methods. Every day, there will be numerous requests from users in various locations that must be kept in a database and supplied with a delivery date and time by which they must be submitted. We need an automated system to manage these tasks. This application, e gas sewa, will assist gas agencies in managing additions in a short amount of time with minimal manual effort. The following are some of the project's most critical tasks: The user orders gas online, the administrator searches for users, the administrator issues dealerships, the dealer sees, and the consumer information. Cancellation of the reservation

**Keywords:** Web Development, Reducing Time consumption, Increase productivity, Gas booking

## I. INTRODUCTION

E-Gas sewa could be a A web application that allows users to apply for and learn about gas online. This project creates a user interface for booking gas. Customers that use this gas sewa will benefit from a wide range of services provided by the organisation. Users will be given a username and password by E-gas Sewa and will be able to complete all of their services online. Customers may see all of the services offered in the smallest detail at any of the sites. It's simple to send a letter of invitation, such as for a gas reservation or a fresh new connection, using our system. Producing services for clients is a great idea. Customers may easily engage with dealers to inquire about connections, accessories, and service transfers from one location to another. Presently a day's every one need a office which diminish their endeavors, time and provides how to try to to their work more easily. For cooking nourishment we all employments LPG gas. It delivered in 1910 by 'Dr. Walter Snelling'. LPG is also a mix of business propane and commercial butane having soaked moreover as unsaturated hydrocarbons. LPG having flexible nature so its Day by day, the number of requests increases. It works primarily in the fields of domestic fuel, mechanical fuel, and automobile fuel. In

India, gas distributors use IVRS, SMS, or ONLINE booking for LPG, which are time-consuming tactics in today's fast-paced world. We discovered that ignorant people are unable to complete these assignments, and that active plan participants do not have enough time to complete all of the activities. Furthermore, security is quite important. As we all know, gas leaks are the cause of innumerable mishaps. As a result, we create extend to avoid these problems. We plan a project while also addressing security concerns. LPG booking made simple This proposal aids all gas reservations and confirmations. better. The development of contemporary innovations within the space of knowledge science and communication has stamped its advantages for unmistakable employment. By contributing within the innovation that creates a difference take the grinding out of diverse organizations, E gas Sewa consistently interfaces several clients with vital encounters, a run of alternatives and extraordinary client interface - from portable to computer and far more. The require of this venture is to spare time whereas booking the gas. once we call to the gas merchant our ask might not be recorded or call might not be associated. These all squander the person's time. within the event that we haven't taken note the completion of gas we must book it in dark for additional cash. By this venture the extent of gas are observed in any respect the time and that we get message when gas is approximately to total. LPG, to start with delivered in 1910 with the assistance of Dr. Walter Snelling is an total of economic butane and commercial propane having soaked in expansion to unsaturated hydrocarbons. Since of the adaptable nature of LPG, it's distant utilized for varied areas in conjunction with domestic gas, commercial fuel etc., LPG is an exponential increment each day. Booking an LPG barrel now-a-days is fair a literary substance message. Petroleum businesses have approach for clients. For this reason, the necessity of an compelling gadget to weight and appear the amount of LPG is fundamental.

## II. LITERATURE SURVEY

The reassociated. These In this section, we have described the different works in the current area of research work. On



the basis of Shape and Texture-Based Identification, In paper [1], Abid Khan Actualized the unused in which the programmed discovery of gas and booking consequently through sensors and iot applications .A fundamental server unit has acces to the database of the gas organizations within the city. Worldwide situating system(GPS) and Worldwide Framework for Mobile communication(GSM) modules within the concerned gas space and a weight sensor which gives sign to the weight of the particular gas and sends the information to the iot applicaton and through the GSM the gas is booked with the client distinguishing proof OTP from the server, This framework is completely automated,

In paper [2,] the author developed a system framework that monitors the amount of gas in the by cylinder and sends SMS to the client when the gas level falls below a threshold limit of roughly 2kg.

In paper [3,] a framework continues to monitor LPG gas spillage and alerts the client. When the temperature rises beyond the set point, it detects a fire and performs necessary actions such as opening the window and turning on the exhaust fan. The sending of an SMS to the client for cylinder booking is included.

Inescapable sensors and LPG leakage location are discussed [4] in a paper The MQ-6 is a gas sensor. Stand that can support a lot of weight (stack cell). For gas leaks, a GSM-based security alarm system is used. The International Journal of VLSI and Inserted Systems (IJVES) is a publication dedicated to the study of VLSI and inserted systems. Ravindra R. Hiwase, Priya K. Kewate, Sushmita P. Tajane, and Jitendra Waghmare offered Automatic LPG Barrel Booking and Spillage Location Using Arduino UNO .

in paper [5], in which they programmed the Arduino and made the barrels booking effectively using the Arduino software and other technologies.

[6] in the paper Aishwarya Gavali, Shital Imade, Priyanka Rajmane V.N. Nayak's watercourse "Gas spillage discovery and intelligent cautioning framework utilisingiot" was published in the Universal Diary of Imaginative Research and Ponders.

L. K. S. Rohan Chandra Pandey and Manish Verma, "Internet of things (IOT) based gas spillage observing and warning framework with MQ-2 sensor," Universal Journal of Designing Improvement and Inquiry, Vol. 5, 2017. The author presented a GSM-based programmed online gas booking module

in paper [8], in which the gas booking is made simple by receiving sms updates on the phone.

Another hardware was created and implemented

in paper [9] for gas booking and leak detection. Using Arduino board hardware, I implemented an Arduino booking gas. All of the studies looked at employed hardware to conduct online gas booking, which is obviously not cost effective. In this research, a cost-effective and

dependable the method was employed. Without the usage of hardware, a system will be conceived and constructed for online gas booking.

[10] in the paper This paper discusses the design and implementation of a smart cooking stove with security features. An energy collection framework from cooking warm has also been provided in this research study to increase the productivity of the regular cooking stove. This is accomplished through the use of a warm retaining body and a Thermoelectric Cooler (TEC) module. By applying see beck impact through the TEC module, warm is preserved to generate control.

[11] in the paper They proposed a Ubiquitous Monitoring Solution for Wireless Sensor Networks with Push Notifications and End-to-End Connectivity, which allows customers to easily book gas using Java technology..

The authors of the study Designing and Development of Gas Leakage Monitoring System using Arduino and ZigBee advocated online gas booking in their paper [12], where zig-bee is a standards-based wireless technology created to enable low-cost machine-to-machine networks.

In paper [13], a client can book gas, which will first be confirmed if he or she is qualified based on the final booking. After that, the stock is checked for the type of cylinder required, which can vary depending on whether the client is a commercial or residential client. If all of the steps are completed, the charge will be created in the client's name, and an update will be made in the office's record to change the stock.

### III. METHODOLOGY

This project primarily serves users with online gas booking services, and it contains the stages listed below.

- 1. Customer Registration:** The registration procedure comprises login information; authenticated users are preserved, and the information is saved in a database for later verification.
- 2. Providers of Delivery Services:** LPG service suppliers are given an application to fill out with their official information.
- 3. Ordering:** This function allows customers to choose an item (LPG) and specify a source and destination location that is convenient for them.
- 4. Booking Confirmation:** Following validation, a message congratulating the user and the supplier on a successful registration is delivered to both the user and the supplier. Figure 1 depicts the proposed booking mechanism.



Fig 1 System overview

**5.Consumer Feedback:** After the successful delivery of the product the consumer can give their experience about the service and as well as the delivery person for their job. In Fig 2 the proposed framework is viewed.



Fig. 2. Consumer Feedback

Requirements:

Hardware interface Requirements:

ASP.NET with C# is the front-end tool,

SQL server is the back-end tool

.Hardware interface:

Operating system: Windows 10

1. Hard disk: 1 TB

2. RAM: 4 GB and above.

**Performance requirements:** The computer's capability is determined by the software's performance. If the database size is large enough, the software can accept unlimited number of inputs. This would be determined by the amount of RAM available.

**Functional Requirements:** a) User/Admin Register: In this module can retrieve the details and store the details in DB for logging in. b) Test: User can experience the future interview type questions. c) Admin area: Admin can add, delete, search, update question and also can view the user details and can logout. d) Feedback: User can give feedback and can logout.

- Operating system:**
- 1.Windows 10/11.
  2. Hard disk: 1 TB
  3. RAM: 4 GB and above.

**DESIGN**

Module specific information:

1. MODULES:

- ADMIN There are three major modules.
- USER • Dealer

The ADMIN feature allows you to add products, examine all transaction details, and manage client information.

The USER module contains product information, user login information, and gas reservation information, among other things.

The gas delivery details are contained in the dealer module

2.TESTING: Testing is used to determine the software's default settings.

The main goal of testing is to uncover flaws in the system. requirements, design, and coding of programmes

The main goal of the requirement phase is to construct the SRS. which accurately captures the needs of the client The Program

The Specification of Requirements (SRS) is a document that details the requirements for a project.

what the software should be capable of. SRS's main objective is to bridging the communication gap between customers and end users as well as software developers Another purpose is to aid users in completing tasks. recognising and appreciating their own needs

The system testing step follows the design and coding phases.

The phase has begun.

System testing is divided into three sections.

- Testing for integration
- Testing of individual units
- Assessment of the system

3.DATABASE: There are 5 main tables in our project, they are:

- 1.Signup table
2. Gas Booking
3. Give Up Subsidy
4. User
5. Dealer login
5. Registered Dealer

Column Name	Data Type	Allow Nulls
consumer_no	varchar(20)	<input checked="" type="checkbox"/>
consumer_name	varchar(25)	<input checked="" type="checkbox"/>
pswr	varchar(20)	<input checked="" type="checkbox"/>



Column Name	Data Type	Allow Nulls
Consumer_id	varchar(10)	☑
Consumer_name	varchar(25)	☑
Consumer_type	varchar(20)	☑
No_of_cylinders	varchar(10)	☑
Date_of_booking	varchar(20)	☑
Est_Date_of_delivery	varchar(20)	☑
Address	varchar(30)	☑
Ph_no	varchar(20)	☑
price	varchar(20)	☑
date	varchar(30)	☑

verified to see if they are correct. If there is a mistake when linking, the error is modified.

SYSTEM TESTING: After completing both unit and integration testing, system testing is performed, which includes compilation and testing of the entire application as well as a test on the owner's computer to ensure that it is working properly. After all of the compilation is completed, the entire application is completed, which examines each and every object for coding, linking, and other issues, and then the results are saved as a Standard EXE.

TEST SLNO	TEST CASE DETAIL	TEST CASE PROCEDINGS	TEST DATA	ACTUAL RESULTS
1	Validation For Username And Password In The Login Form	Place The Cursor On The Textboxes Of Username And Password	Admin ***** (user known)	Avail Is Displayed
2	Validation For Username And Password In Login Form	Place The Cursor On The Textboxes Of Username And Password	Admin ***** (user known)	Error Message Is Displayed
3	Validation For User Name In Signup Form	Place The Cursor On The Textbox Of User Name	ADMIN	User Name Is Accepted
4	Validation For User Name In Signup Form	Place The Cursor On The Textbox Of User Name	1016	Error Message Is Displayed
5	Validation For Mobile no in Signup Form	Place The Cursor On The Textbox Of NewUser Form	983 784 7592	Mobile no Is Accepted
6	Validation For Contact no in Signup Form	Place The Cursor On The Textbox Of NewUser Form	890 349 79f d987	Error Message Is Displayed

Fig.3. Sample test cases used

ER DIAGRAM

The following figure represents the overall overview of the system where the user books the gas online and till to the online transactions.

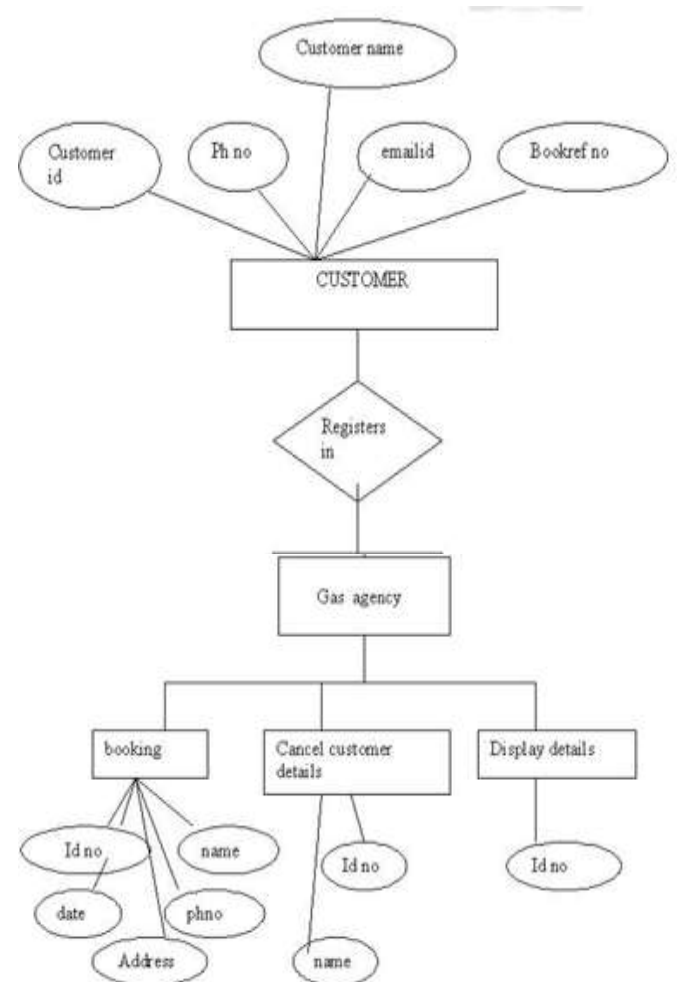


Fig.4. ER Diagram IV

UNIT TESTING: This section of system testing compiles the system coding for each particular form, class, and module. Every object in the forms has its own coding section, where the required code is written.

The codes are compiled in order for the object to function properly.

If any mistakes occur after the complication, they are corrected, and every object in the form is checked to ensure that it is functioning properly.

INTEGRATION TESTING: Integration testing begins once individual unit code testing is completed.

The related objects are tested during integration testing. Whatever objects are linked between the forms, they are

IV. RESULTS & ANALYSIS

A. The interface is created and in a user friendly manner and it is represented in the fig.5. where user can

login, admin can login and dealer can login using the interface.

Fig7. Dealer login



Fig5. User Interface

B. Admin can Register at first then he/she can login through the Id's with the rename and password. The process is represented in the Fig.6.



Fig.6. Admin Login

C. Dealer can check and update their data as Shown in Fig 7.



D. Dealer registration done using the interface created by us and can add their availability as shown in the fig.8



Fig.8 Dealer registration

E. Dealer has the accesses to change the price as per their stocks and governance.



Fig.9. Price changes

F. Consumer can register for different gas providing company



Fig 10. Using different gas agencies

G. Gas cylinders can be booked and viewed which is represented in the figure 11.

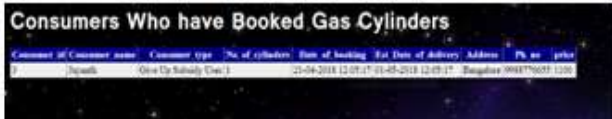


Fig.10 Booking cylinders

B. Booking cancellation can also be done with a single click as shown below



### V. CONCLUSION AND FUTURE SCOPE

The concept of E gas sewa using web technologies to create the bookings and also the working of the gas online was effectively executed during this research paper. We developed and customised an internet based application that helps the user to book the cylinders in an exceedingly easy way the developed findings are highly accurate and utilise memory efficiency. In the same manner that any project could also be enhanced further, our project may be improved further. Our project is written in C#, with Asp.Net and SQL Server serving because the side and face, respectively. The customer can pay a amount to particular organisations that are linked to the bank,

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