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Documentation On

"GAS BOOKING SYSTEM"

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Submitted By:

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Project Guide

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Introduction:

Online gas booking is a web application which user can apply and know the information about gas online. This project provides an interface for the users to book gas. By using this online gas booking customers can be highly benefitted with vast areas of company's services.

Online gas booking will provide an username and password to the users by with they can do all the service online. Customers can view all the services provided at all the locations. It is easy to put a request like gas booking or for new connection through our system. It is highly befitting to provide services to customers.

Aims & Objectives:

The objective of this project is to create the system where the customer can easily book their LPG gas cylinder through online system and agency can track the record of its customer and the delivery of the cylinder.

The system will help the customers by providing a simple user interactive interface for booking the gas through online which will save their time and money. It also gives the agencies ease by helping them make the booking process faster and easier to maintain.

There are various steps to book a gas like issuing an entry book, to travel agency from that to go to the delivery centre , our system makes this whole process at one place. Basically, there are two types of users for the cylinders domestic and other is commercial.

It gives every user a simple and secure system by authorizing the user before entering the system. This is helpful to the agency to get all the desired data through so many simple steps without going through manual records.

The system will display the user the number of the gas they booked through online with detail description as there should be limited time after which new gas can be booked. We in our system focused on following keywords:

- Consumer Record is maintained
- Edit, update and deletion of the record
- Online booking of the gas through internet from any point

- Check consumer is valid to book a gas
- Valid booking followed by the payments

process Booking record should be maintain

ABSTRACT OF ONLINE GAS BOOKING MANAGEMENT SYSTEM

To ensure a simple and secure environment for the consumer and the agencies we are making the 'Online Gas Booking System'. Through this system, we are solving the customers' problems in a lot of way like to book their gas cylinder from home without travelling to the agency and stand in a queue to just book the gas.

On the other hand, it also makes easier for the agency to check the number as a person has booked in a specific amount of time and the person who is booking the gas is authenticated or not whether he/she has brought the bottle within the time period, to get his gas booked.

It also prevents any error while registering the gas as if it's done manually there is always a chance of omission and oversight. It also helps the agency to move from a manual system of registering the data to storing it online which digitized the agency and reduces their overall carbon footprint.

It will avoid the agency from spending a huge amount of their budget in maintaining the manual records and updating them from time to time. As the customer moves from another city its records can be easily transferred or deleted from the record.

All the operation will become easier as all information that is provided from the system is very reliable and high amount data space is used.

It also influences the user registration for the booking and the transaction process as it has the simple interface for booking the system through which customer can easily book the gas cylinder after that a payment process is also secured.

The determination of system is to provide the user with a simple and secure software which is understandable, easier to store and search the information.

Overall Description:

EXISTING SYSTEM OF ONLINE GAS BOOKING MANAGEMENT SYSTEM:

Talking about the current system which presently used in the institutes is basically manually working or even if it is computerized restricted to a place or building thus all work of maintenance is also done in the same building.

So, we can say that Existing system of Gas Booking System works computerized in a building or manually with pen-paper.

This creates a very hectic procedure to manage as everything is on spreadsheets, file and binders, the same situation will occur in offline computerize method though everything is on the one system which is not globally present.

Whenever a customer requires the gas he/she have to travel to the agency and make a demand for gas which is recorded in a separately in a registration file, then the previous delivery made to the customer is searched and the number of days from that date till now is calculated.

If the number of days is expired only then the order is accepted, if not the order placed will be rejected. Then the valid order request is taken in and a billing is done manually.

The order is for two purposes as domestic and commercial. The billing is done based on the above two categories and the rate is charged.Then the stock of cylinders is also maintained in manual records.

So, while billing this also has to be taken into account and billed. This involves a great processing and the time is also wasted. Following this kind of system does not only require a lot of human resources but also budget for maintaining them and stationery required.

Whereas in our system whenever a customer makes a demand or places an order through a phone call or by travelling personal to that place, it is received and immediately checked by billing.

The customer’s name, address, last date of delivery is all maintained in the database. So, when the customer order is received and billed, the system automatically calculates the number of days from the previous delivery, if valid the billing can be done, if not the billing cannot be done and the customer can be informed about it.

So, the manual process of recording and billing is done easily without any paper work. The stock of gas that is recorded and maintained manually is made computerized.

So, while billing, based on the stock the billing charge and capacity is made. When the stock goes below the limit, it can be easily identified.

So, by this project, the process of ordering, billing and stock maintenance for a gas agency can be processed easily. In the manual system if a customer leaves the town then the staff has to find the record in the binders or spreadsheet which will consume a lot of time and resources. It also makes the compulsory to do mundane work of daily update the stock register. This shows us various draw back in this system which are:

- All the process is time-consuming.
- Every process requires proper arrangements which will need a human resource.
- Managing the staff entails to spending the money increasing the budget.
- Booking process increments the level of complexity as the number of customer coming to book gas increases.
- Information is not available globally to both customer and agencies.
- Staff manually evaluating the validity of customer is susceptible to faults and mistakes.

Product Perspective:

Once the planning and analysis of the project are completed, the design phase begins. The goal of system design is to transform the information collected about the project into the blueprint structure which will serve as a base while constructing the system.

It is considered to be an unwieldy process as most of the errors are introduced in this phase. However, if an error gets unnoticed in the later process it may become difficult to track them down.

In our system, we are developing a system which helps in customer book a gas. The new system will maintain and store all the record without any overhead cost. All the process of booking will be web based online which makes it robust and globally available.

It will have transaction details which will store all the information regarding the payment of the booking as well as the total transaction record will be maintained which holds the record of a number of commercial and domestic cylinders have been sold on a particular day.

The billing record is stored separately so the agency can check the last bill of the customer just by matching his/her id without any hectic work of looking in the file manually. It will minimize the problems faces by both customers and the agency in the duration.

Consumer Interface of online gas booking management system:

The consumer has to login to the system to book a gas which acts as a security blanket to the system and avoids any anonymous person to enter the system. It can book the gas through booking interface and if verified by the backend system which will check whether he/she is booking gas after a specific period or not.

If verification is approved user can go for the payment option. The consumer can also check its personal details stored by the agency and edit if they wanted to like changing their address or mobile number.

Agency Interface of online gas booking management system :

The agency will assign a member of its staff who has to operate the system, those employees will be given access to the system. It will provide the stock details to the system which help in getting the booking possible or not.

Agency can also check on daily purpose how many cylinders are booked and details of customers who have booked them.

Booking Interface of online gas booking management system:

In this customer can book a gas and first it will get verified if he/she is eligible based on its last booking then the stock is checked for the type of cylinder needed which will be based on the customer is commercial user or domestic user.

If all the process is done, the bill will be generated in the name of the customer and there is an update in the record of the agency to alter the stock details.

This system will provide relief to the customer and the gas agencies which earlier use to hassle with the customer to go the location and stand in the queue instead they can book the gas sitting in their home.

Modules:

In this project, we have two modules

1. Customer

2. Admin

3. Dealer

Customer Module:

Customer first fill the signup form then login into their panel and do the following activities

- Dashboard: This is the Welcome page for the customer.
- New Connection: In this section, customer sends the request for LPG connection to the organization
- Book Cylinder: When the organization provides a connection number then the customer can book his/her cylinder.
- Booking History: In this section, customer can view the history of gas booking.
- The customer can also update his profile, change the password and recover the password.

Admin Module:

- Admin is the super user of the website who can manage everything on the website. Admin can log in through the login page
- Dashboard: In this section, admin can see all detail in brief like the total new connection, total new connection, total on-hold connection, total approved connection, total rejected connection, total new booking, total confirmed booking, total canceled booking, total assign booking, total delivered LPG, total staff and total registered users
- Delivery Staff: In this section, admin can manage staff (add/update).
- Registered Users: In this section, admin can view the detail of registered users.
- Connection: In this section, admin can view the connection request admin also has the right to change connection status according to the current status and add his/her remarks.
- Booking: In this section, admin can view booking request and assign to delivery staff or cancel the booking.
- Assigned Booking: In this section, admin can change the status of booking according to the current status and add his/her remarks.
- Reports: In this section, admin can view booking and connection requests in a particular period.
- Search: In this section, admin can search booking and connection details with the

help of user id.

- Users Feedback: Admin can view all the users feedback about gas connection, delivery system
- Admin can also update his profile, change the password and recover the password.

Dealer Module:

Dealer first fill the signup form then login into their panel and do the following activities

- Dashboard: In this section, dealer can see all detail about gas connection and total registered users
- Registered Users: In this section, dealer can view the detail of registered users.
- Booking: In this section, dealer can view booking request from users.
- Assigned Booking: In this section, dealer can change the status of booking according to the current status and add his/her remarks.
- Delivery Status: Dealer can manage all gas delivery system as per users request.
- Dealer can also update his profile, change the password and recover the password.

Operating Environment:

Server Side:

Processor: Intel® Xeon® processor 3500 series
HDD: Minimum 500GB Disk Space
RAM: Minimum 2GB
OS: Windows
Database: mysql

Client Side (minimum requirement):

Processor: Intel Dual Core
HDD: Minimum 80GB Disk Space
RAM: Minimum 1GB
OS: Windows

Design and Implementation Constraints:

- The application will use node js , express , mysql , html , css as main web technologies.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since gas booking system is a web-based application, internet connection must be established.
- The Gas Booking System will be used on PCs and will function via internet or intranet in any web browser.

Specific Requirement:

External Interface Requirements:

User Interfaces:

- All the users will see the same page when they enter in this website. This page asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces:

- **OS:** Windows
- **Web Browser:** The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the booking information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfill the request fired by the user.

DIAGRAMS:

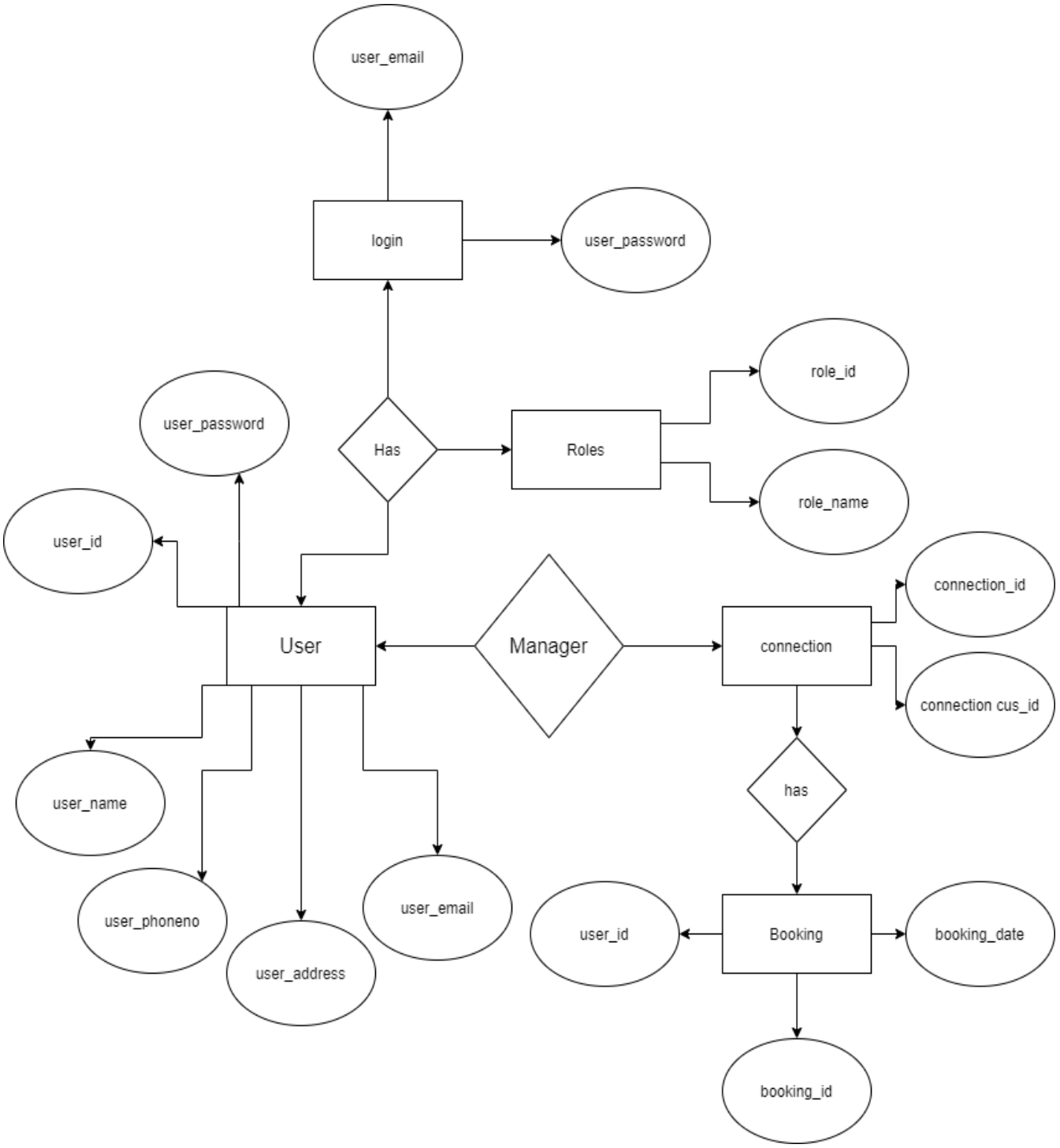


Figure 1 ER DIAGRAM

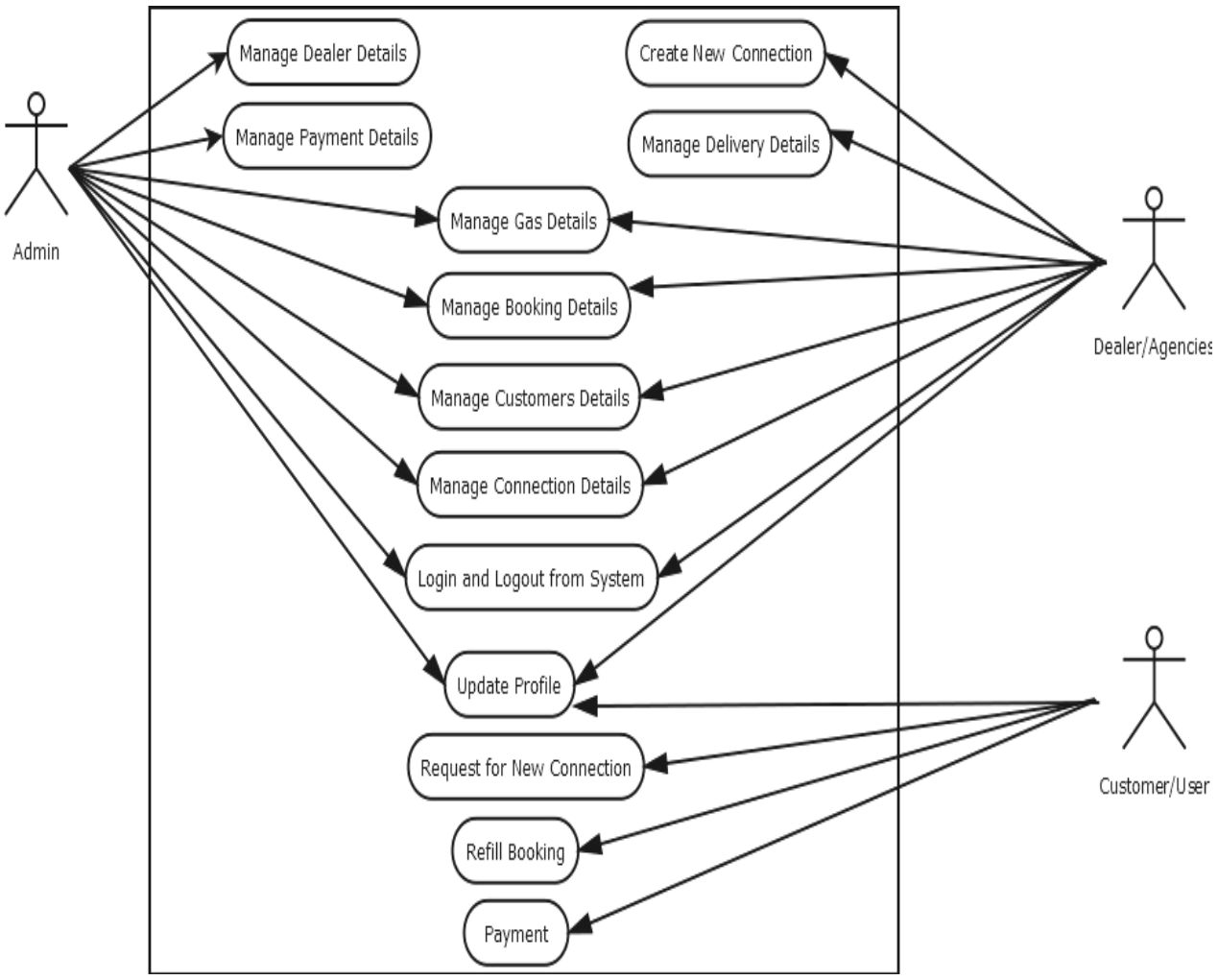


Figure 2 USE CASE DIAGRAM

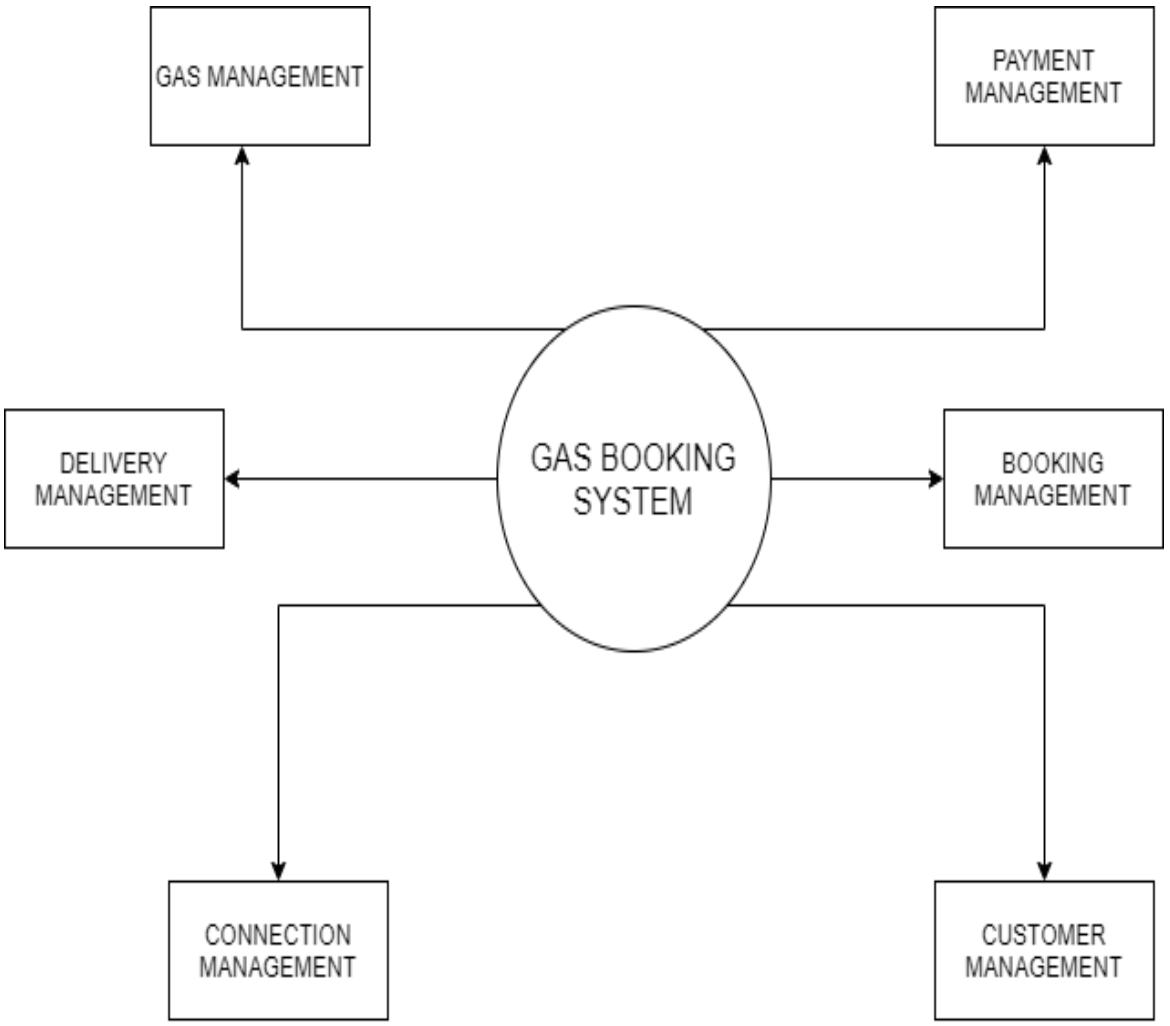


Figure 3 Zero Level Data Flow Diagram

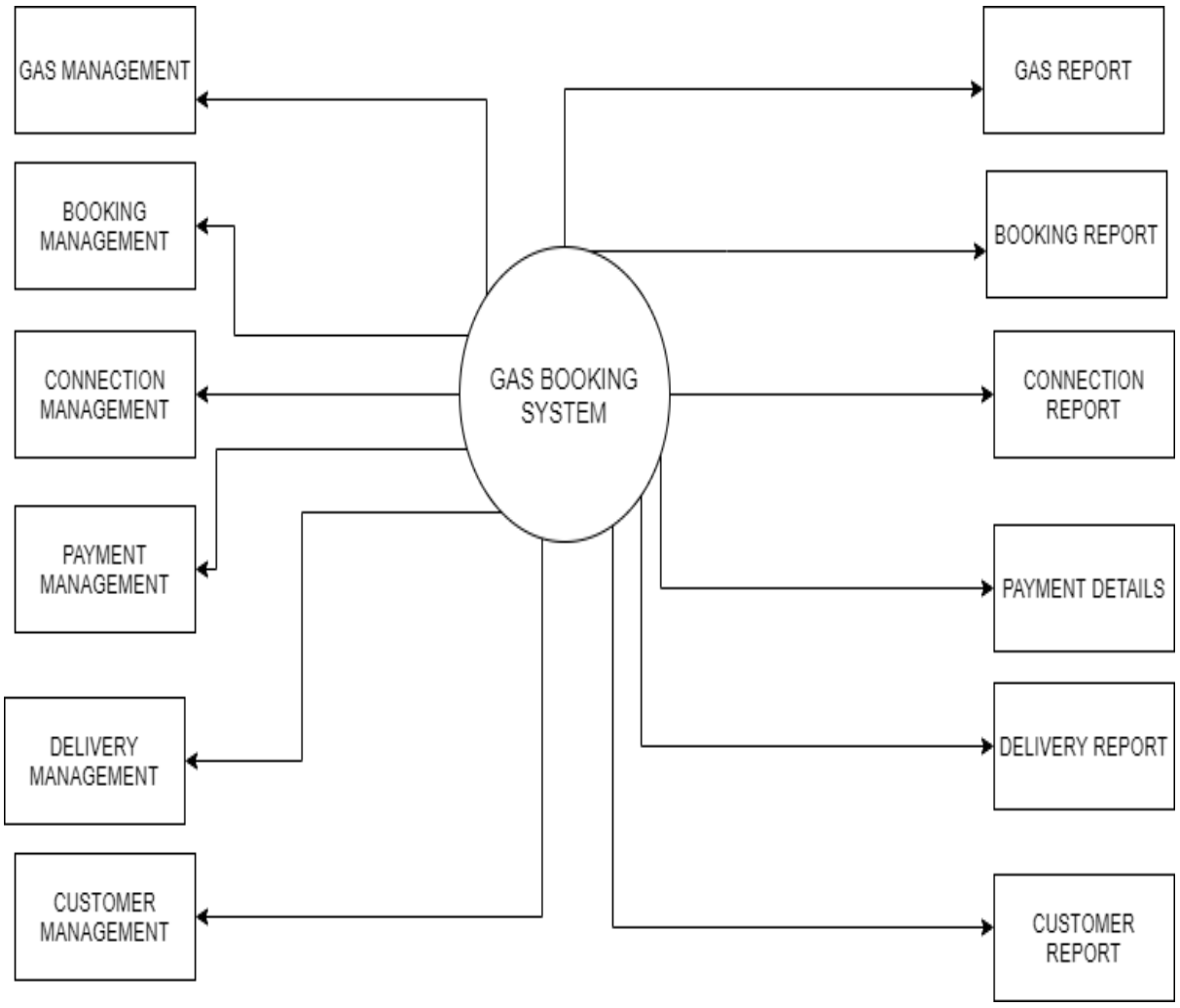


Figure 4 First Level Data Flow Diagram

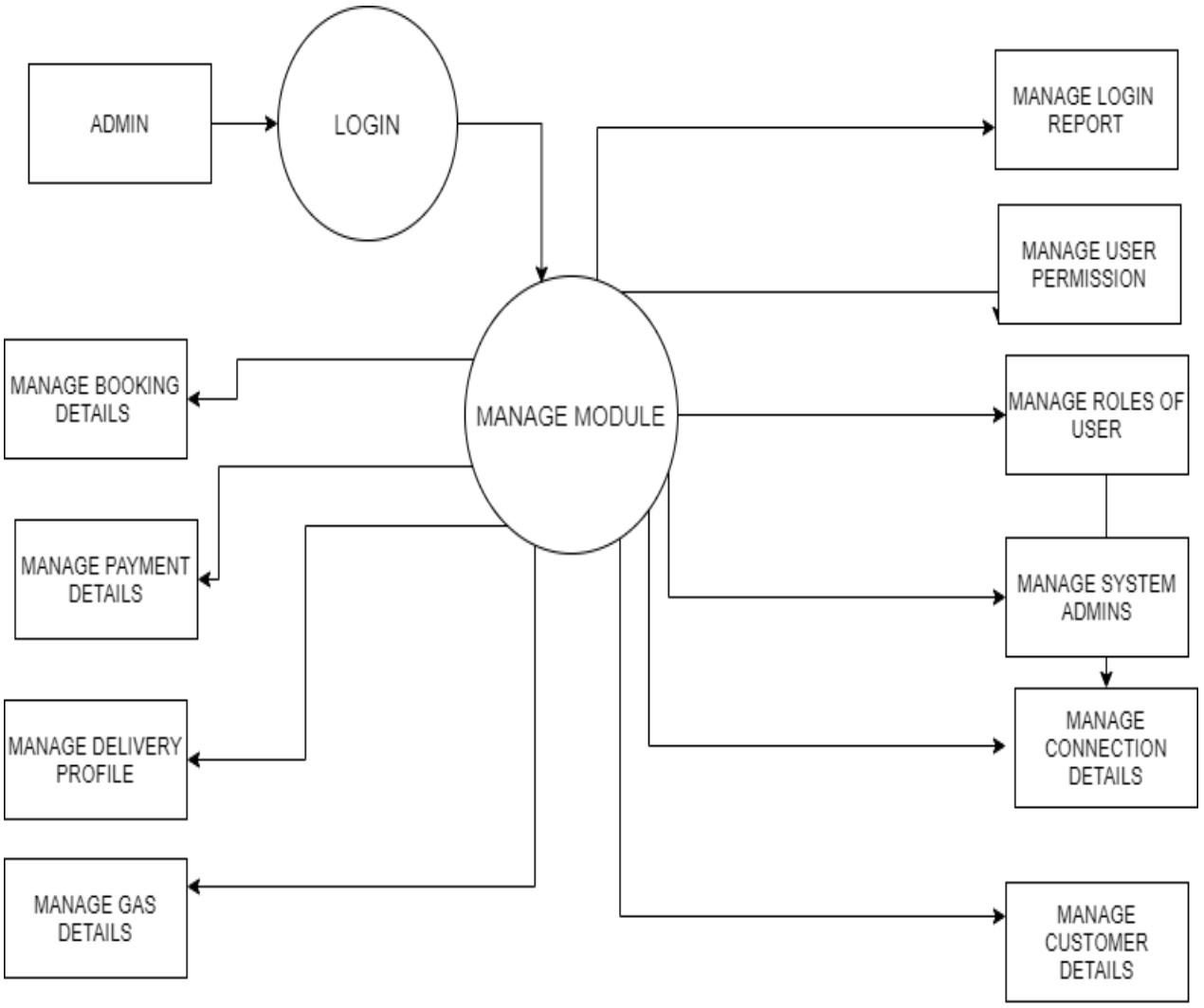


Figure 5 Second Level Data Flow Diagram

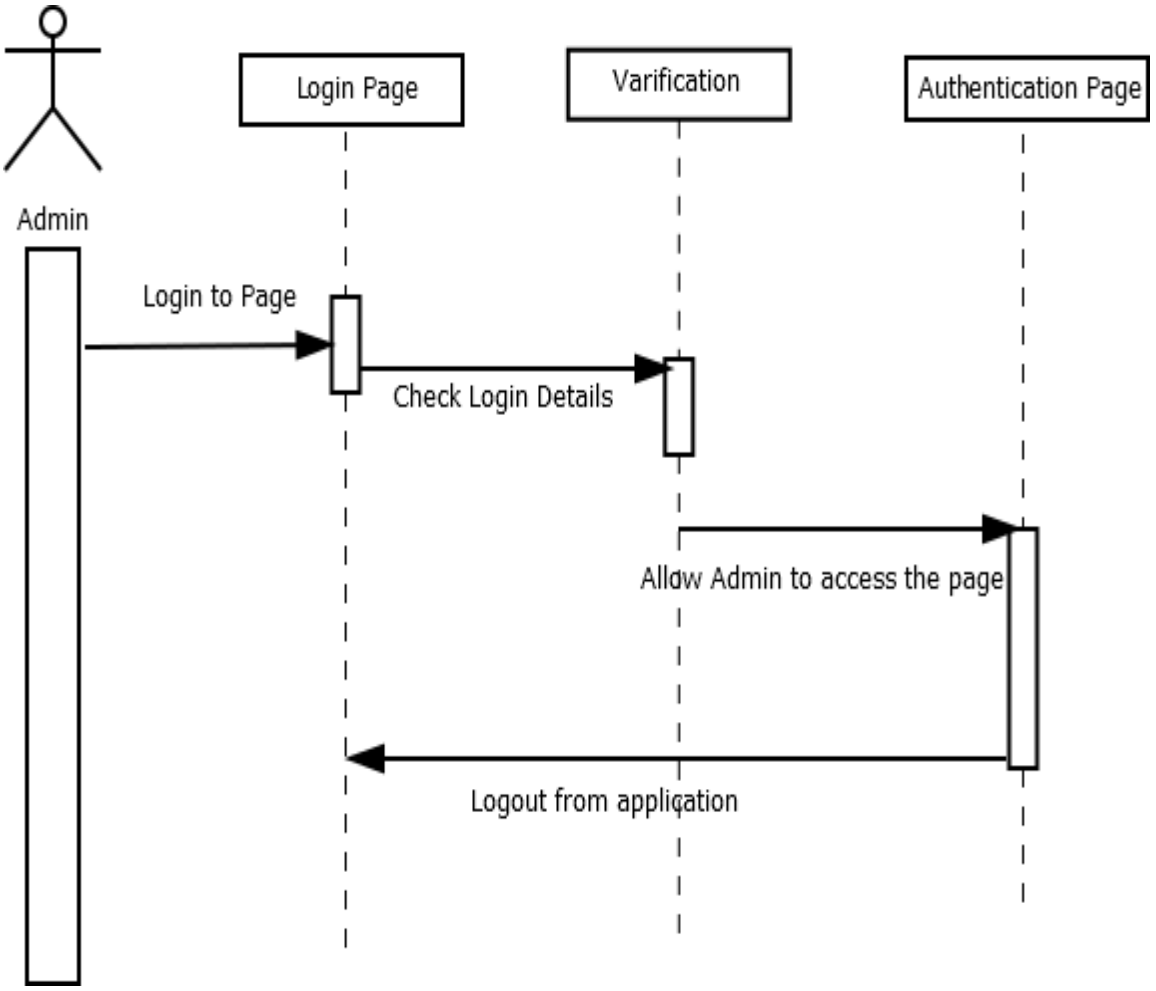


Figure 6 Admin Sequence Diagram

Table Structure

Users_info:

Field	Type	Null	Key	Default	Extra
Uid	Int(10)	NO	PRI	NULL	AUTO_INCREMENT
Firstname	Varchar(20)	NO		NULL	
Middlename	Varchar(20)	NO		NULL	
Lastname	Varchar(20)	NO		NULL	
Actor	Varchar(20)	NO		NULL	
Gender	Varchar(20)	NO		NULL	
Phone	Varchar(20)	NO		NULL	
Permanentaddress	Varchar(100)	NO		NULL	
Email	Varchar(50)	NO		NULL	
Password	Varchar(20)	NO		NULL	

Users_gasconnection:

Field	Type	Null	Key	Default	Extra
connectiondate	Date	NO		NULL	
Nocylinder	Varchar(20)	NO		NULL	
Totalcost	Int(10)	NO		NULL	
Uid	Int(10)	NO	MUL	NULL	AUTO_INCREMENT

Users_complaint:

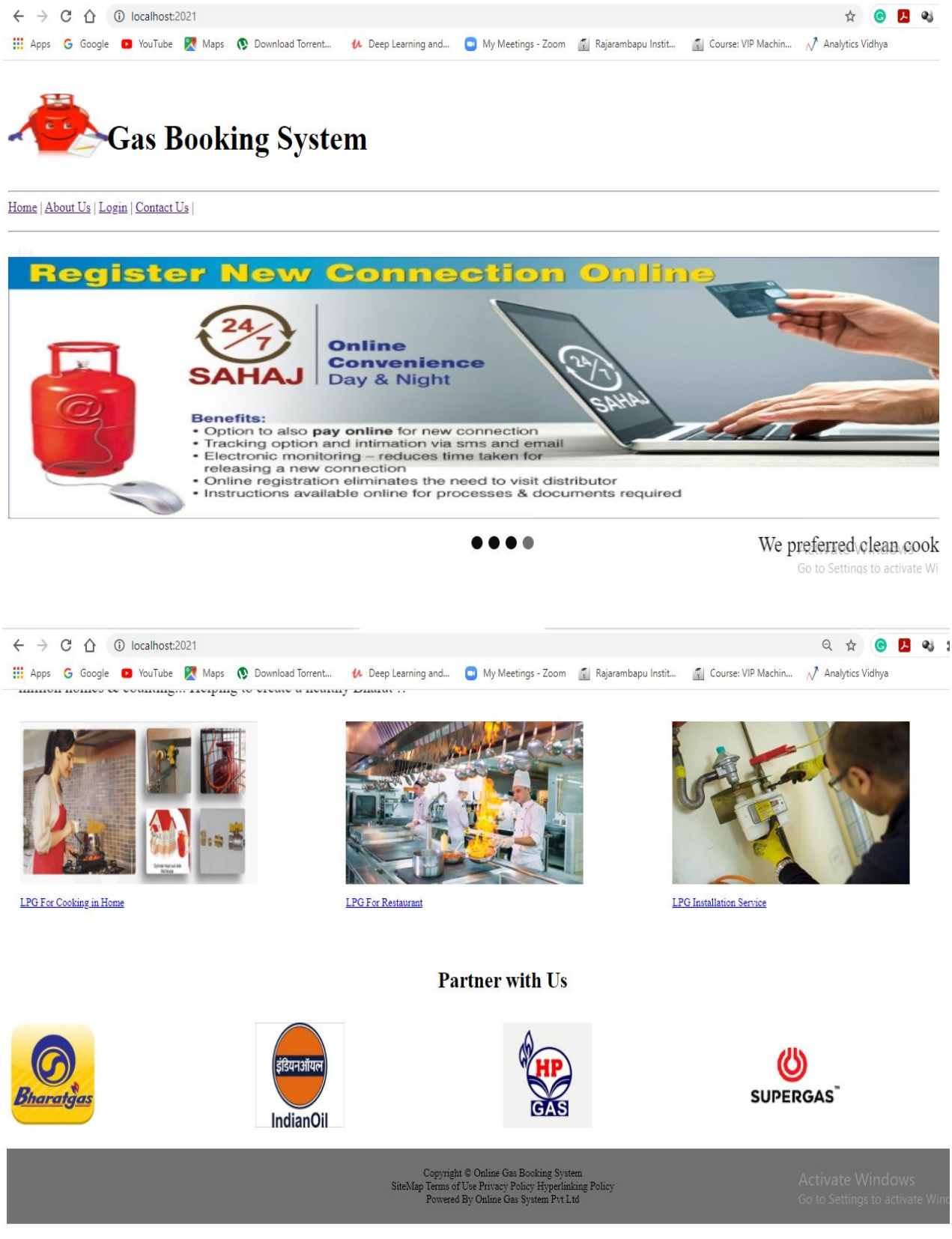
Field	Type	Null	Key	Default	Extra
Firstname	Varchar(20)	NO		NULL	
Lastname	Varchar(20)	NO		NULL	
Area	Varchar(20)	NO		NULL	
Subject	Varchar(100)	NO		NULL	
Uid	Int(10)	NO	MUL	NULL	AUTO_INCREMENT

Users_delivery:

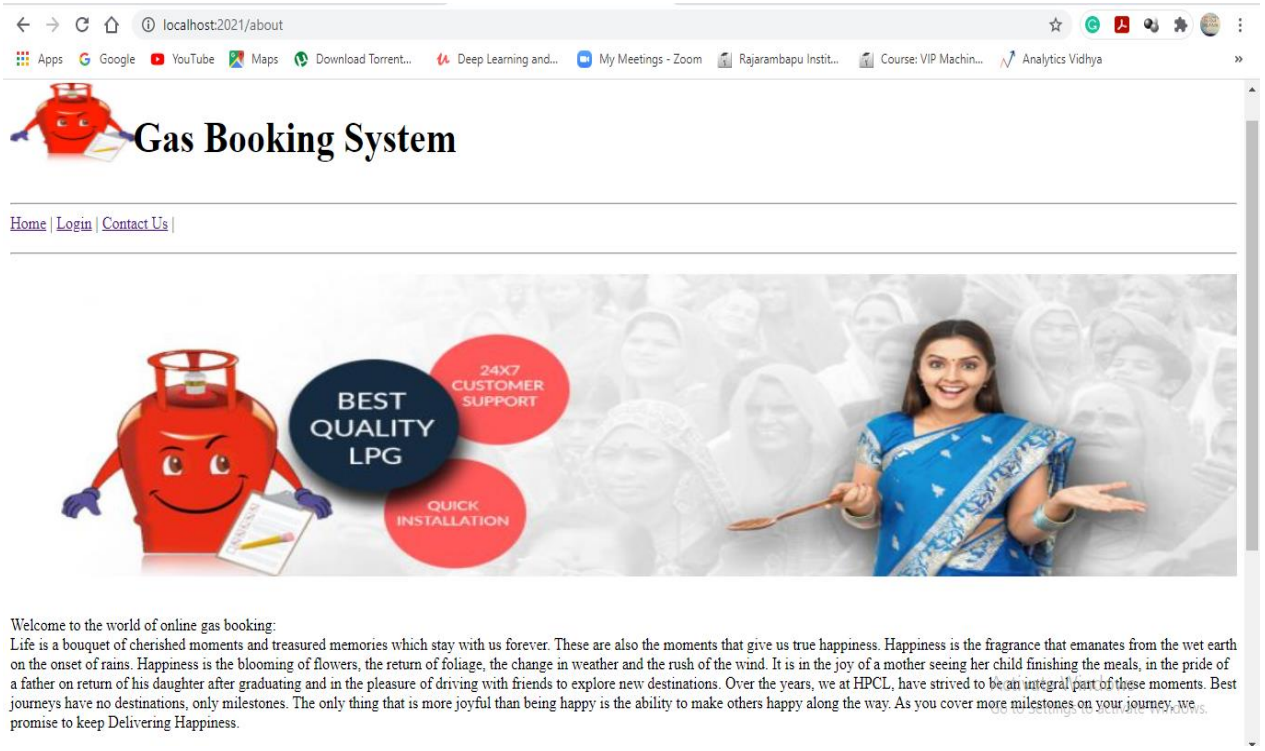
Field	Type	Null	Key	Default	Extra
deliverydate	Varchar(20)	NO		NULL	
Approval	Varchar(20)	NO		NULL	
Uid	Int(10)	YES	MUL	NULL	

SCREEN SHOTS:

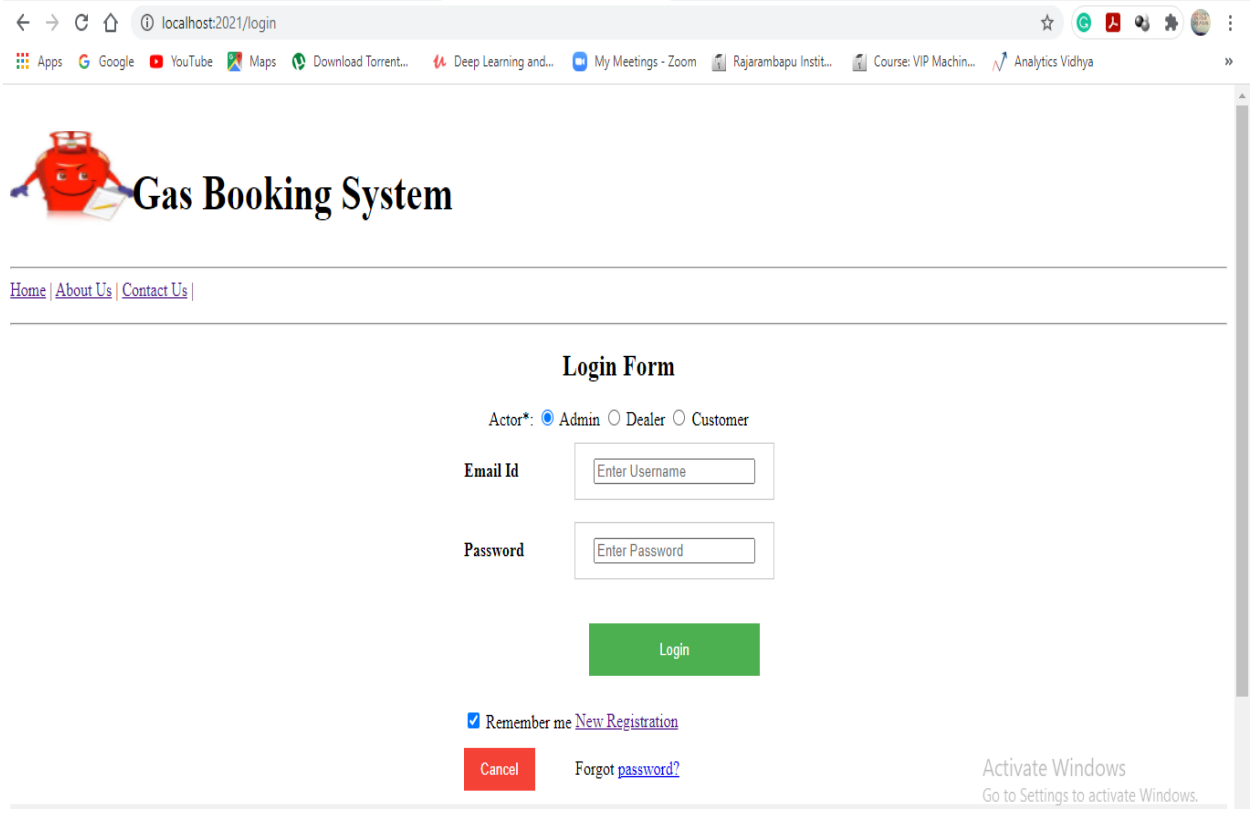
1. Home Page



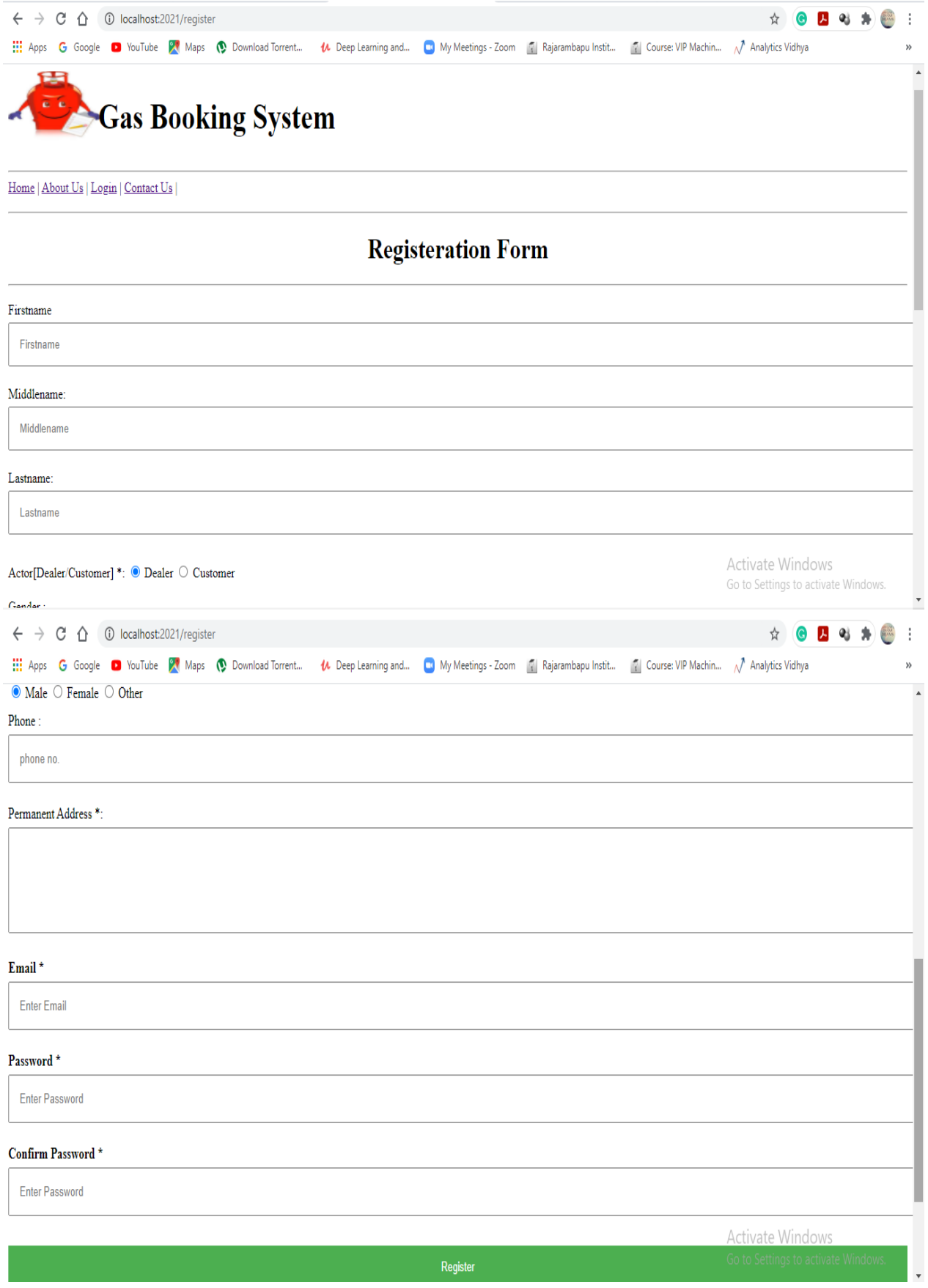
2. About Us



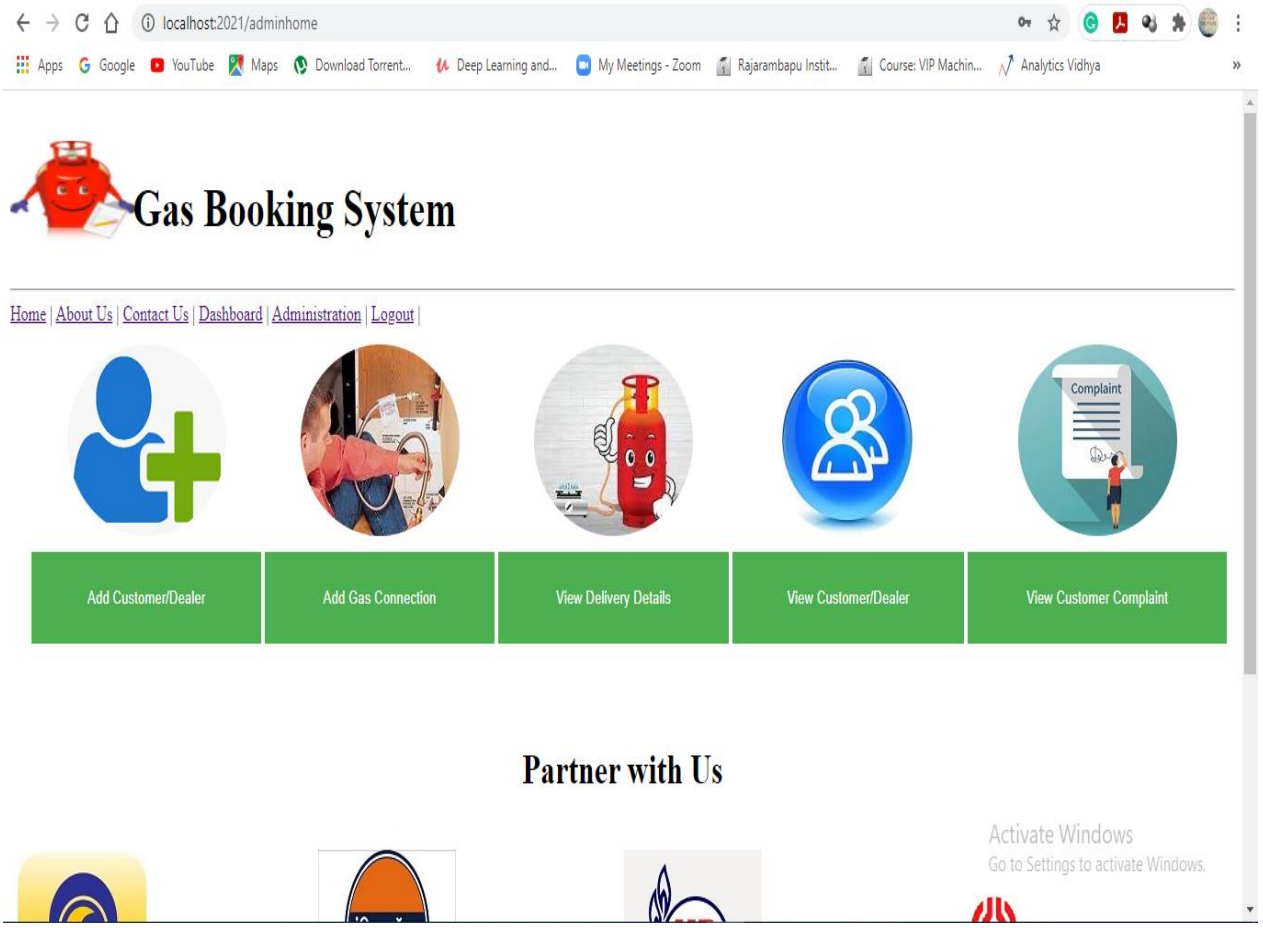
3. Login Form



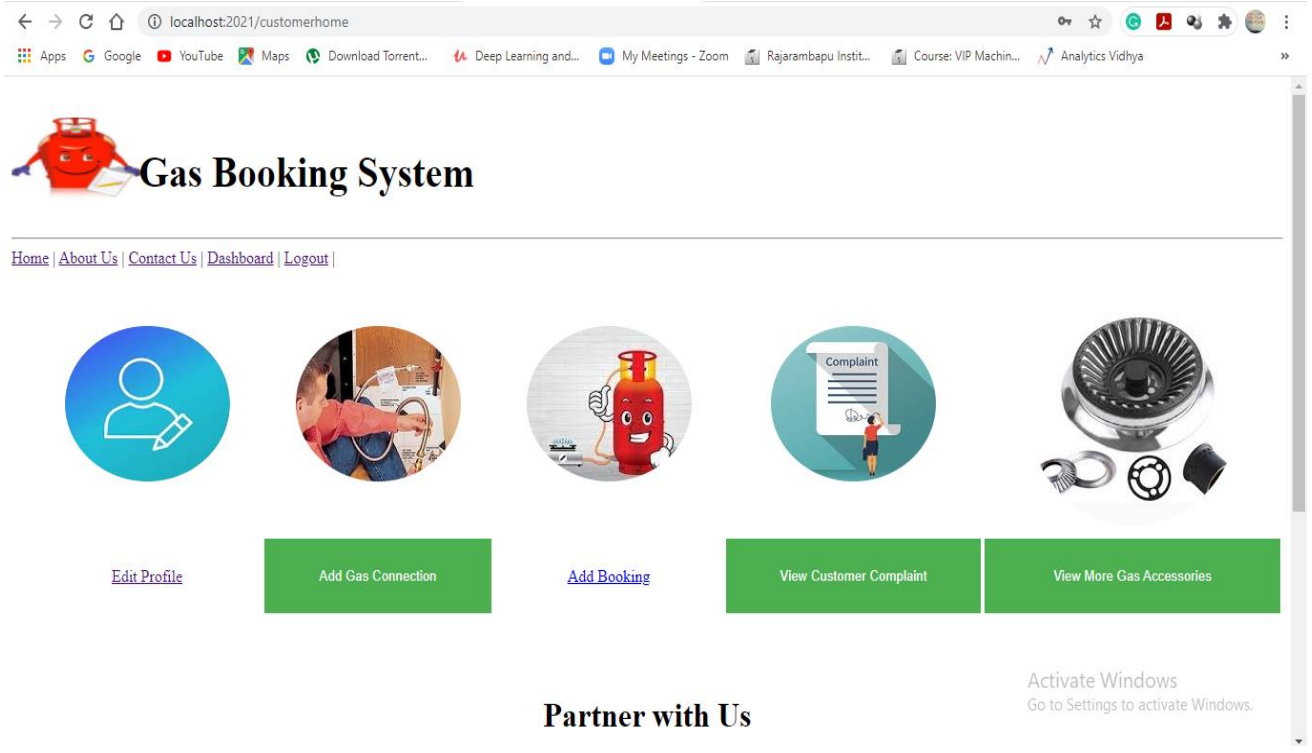
4. Registration Form



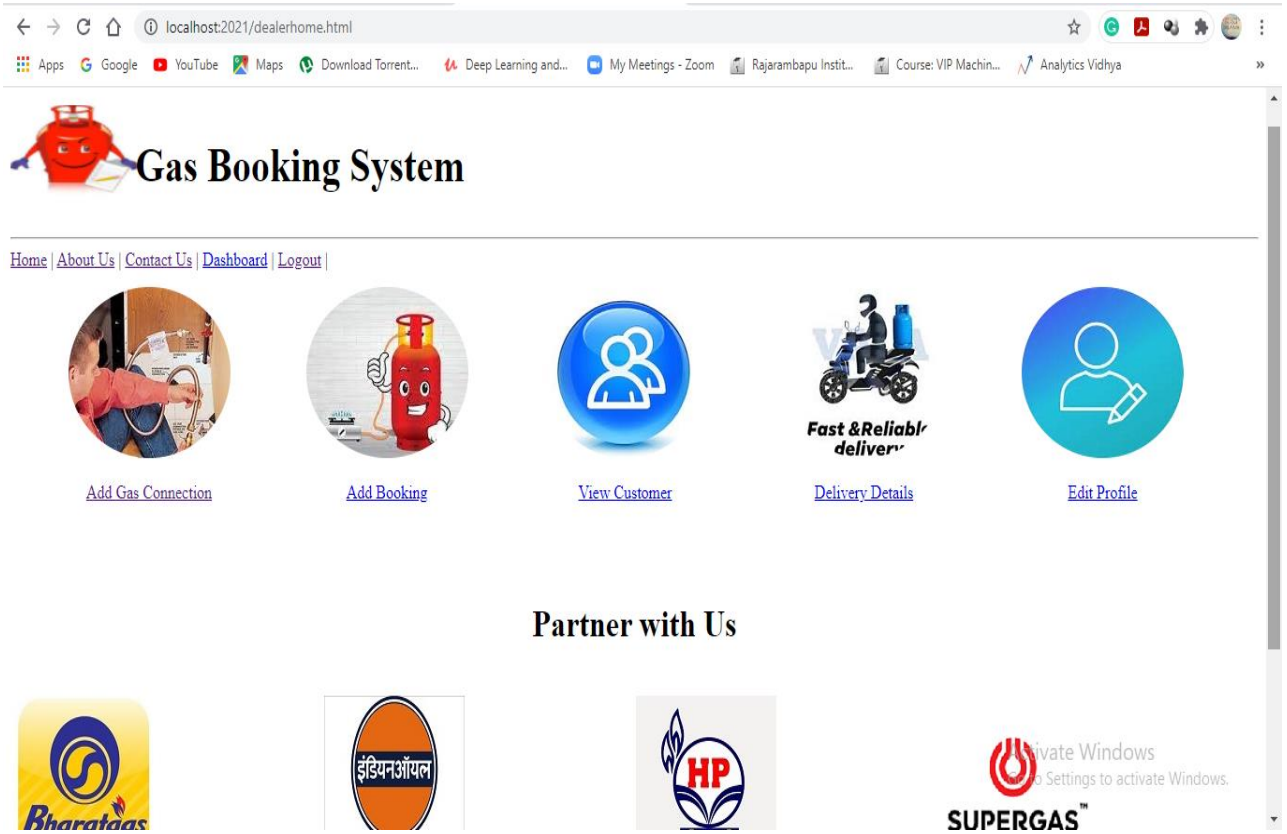
5. Admin Home Page



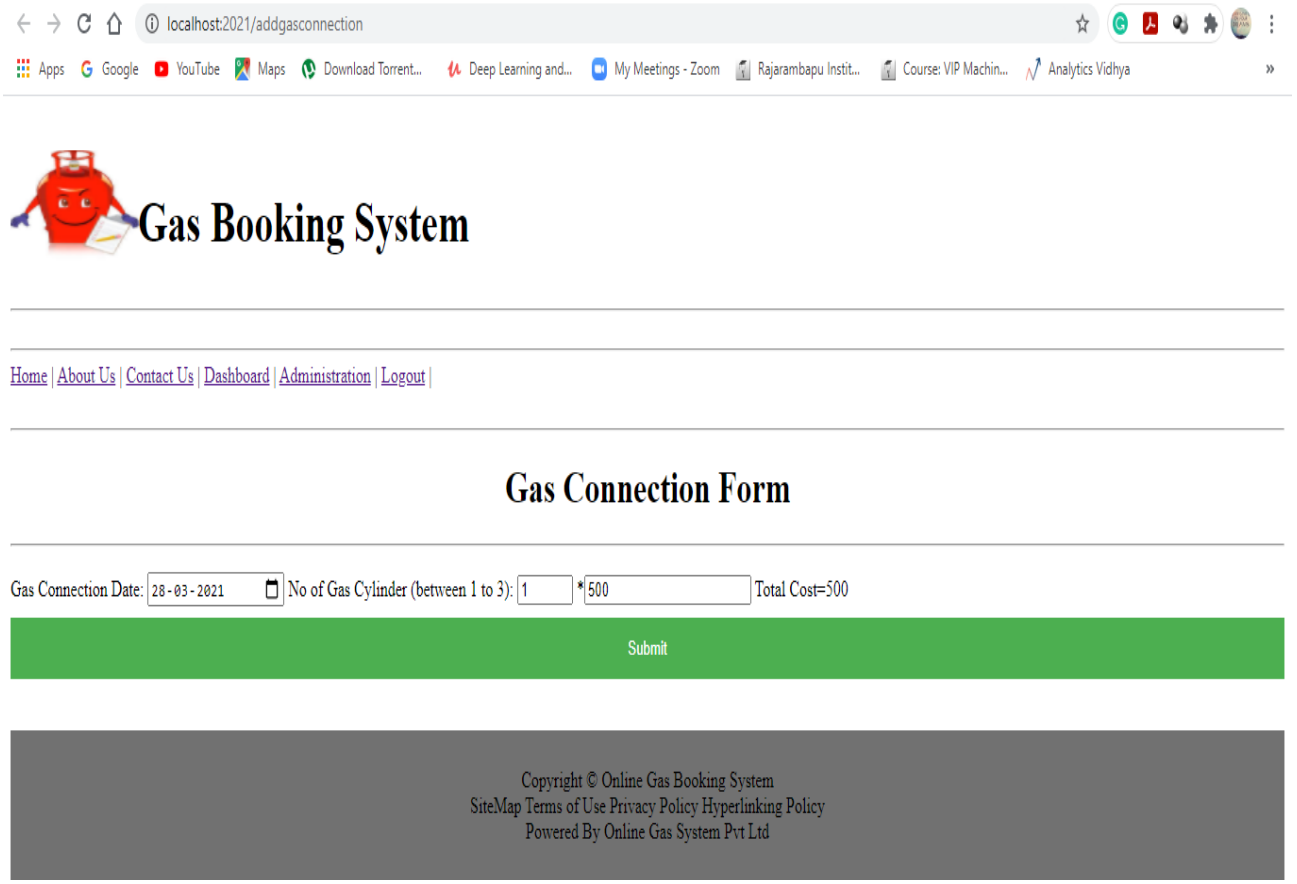
6. Customer Home Page



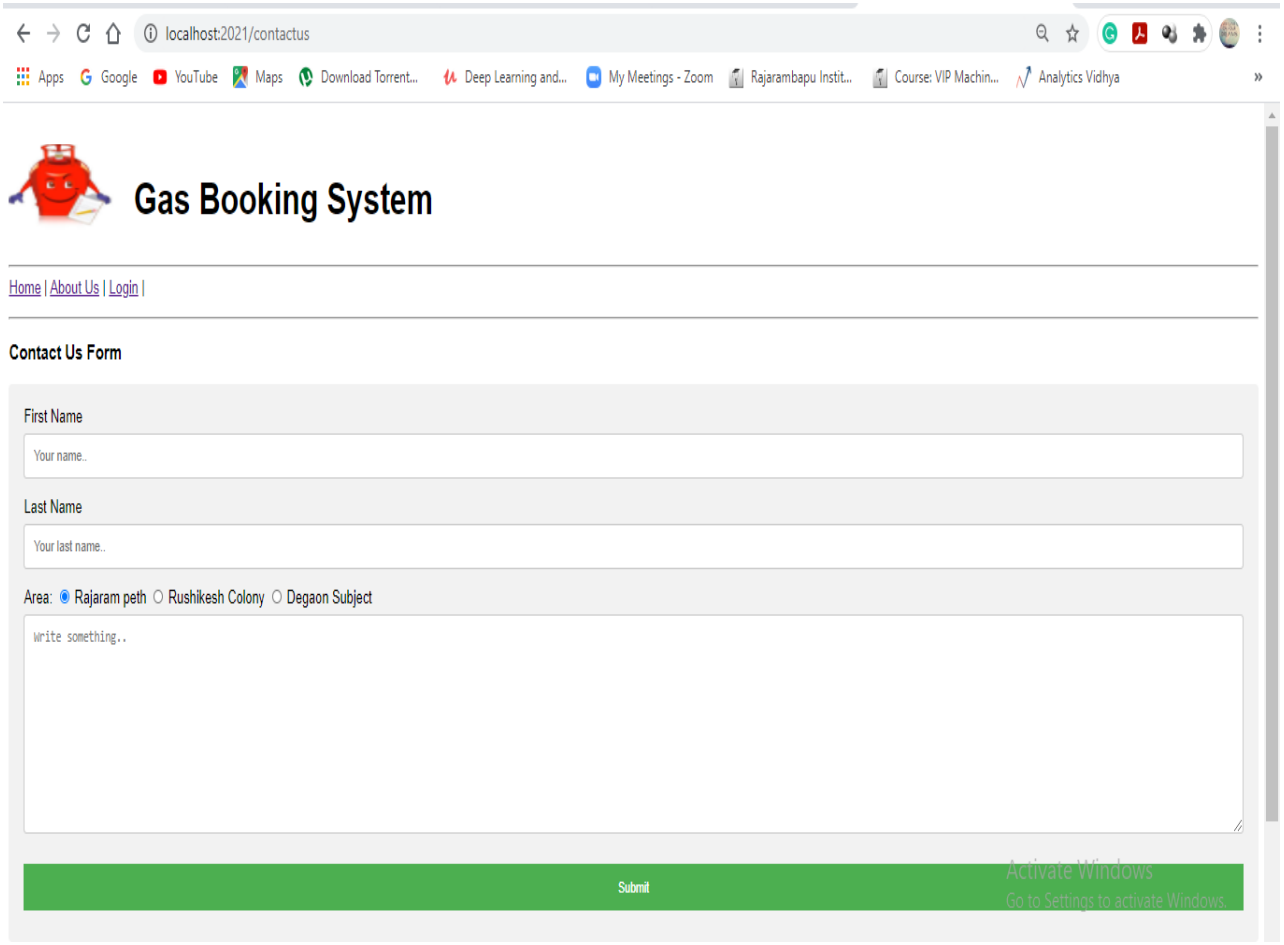
7. Dealer Home Page



8. Gas Connection Form



9. Contact Us Form



Conclusion:

The intention of this whole system is to computerize the entire existing system and solve all Problems of the Existing System. This system is useful for all gas agencies. This system is designed to save time and will reduce the complexity and is also user friendly.

Future Scope:

In future we are going to make this project such large that every big firm can use this project. In future we will contact to large number of shops and will gather all information from them and will build a project that will help them all. Number of facility will increase in project and we will try to make this project much simple as possible. We will also going to produce a project that will give simple interface to user.

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