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ABSTRACT

Online Gas Agency is an application which provides better facility. Here we deal with customer online. If the customer has any problem about his Gas connection or he has any problem related leakage in his gas connection and the customer wants information about his gas connection that he has to Purchase a gas line we are guiding them and suggest them according to there Convince. And proof they need when establish new connection. The customer can book online gas cylinder. We also solve the complaints of customer Customer can pay online gas payment so that they don’t have to stand in Post office line because it takes too much time.
ACKNOWLEDGEMENT

Then I would like to express my heartily thanks to M&N VIRANI SCIENCE COLLEGE for providing me such an excellent guidance for the project. They were the Main force behind all this work because of its valuable Suggestions and proper guidance for the project. They taught us how to Work in an Organization, how to complete given Work within Deadlines, Working under Pressure and being Independent.

I take the opportunity to express my deep and sincere sense of gratitude towards my guide Mr. KEYUR ZALA & Mr. PRADIP VANPARIYA who were the real source of our inspiration and encouragement. They constant help, thoughtful suggestions and deep interest have enabled me to complete this work.

I am also thankful to all those who have helped me in this endeavor either directly or indirectly, including my friends for their coordination and guidance.
3. INTRODUCTION

3.1 PROJECT SUMMARY

A gas agency which will marketing his agency, maintain his dealers record, selling his products, advertising his products, maintain customer information, service regarding refill registration etc.

Now if we discuss about the whole existing system they have well suited software for that, but they are not satisfied with their work, they want more reliable service to that customer. They give more extra information to the customer. They wants customer directly deals with the agency, so that they decided to make the web application for that purpose.
3.2 PURPOSE GOALS & OBJECTIVE

This application mainly designs for VANAZ GAS LOGISTIC. The main goal of this application is to provide some extra features or save their time with accuracy & profit.

This application is general purpose web application used by the every visitor. The website has administration control over the actual activity.

This web application also provides user registration facility. Using this facility he/she can access many of the features that are not accessible by the every visitor.

This application provides online refill registration, online support connection transfer from one place to another etc.

In sort this project is enhanced in order to overcome the current difficulties in handling data for maintaining the stock & account for customer. This system give Erroneous result.
3.3 **SCOPE OF THE PROJECT**

This system is specially developed for VANAZ GAS AGENCY. It will handle the customer information and distributor information as well as billing for each sales activity.

**Advantages:**

- The system is able to maintain the stock and account for the customer.
- It prints the bills for the customers.
- Give quick response to each and every requirement.
- The system overcomes the problem of finding the item name as well as customer name and distributor name.
- This system can easily maintain the record of the items sold to customer.
- It also maintains the accounts of transactions being made by the customer.
- The system keeps track of different customers and distributors through their unique code. Using this unique code you can know his information and also see the account of that customer or distributor.
- The unique bill number for sale on cash and credit can be easily distinguished by the system and from bill number the transaction type can also be found.
- It will also give information about services.
3.4 TECHNOLOGY & LITERATURE REVIEW

Microsoft Visual studio (ASP.NET)

Microsoft Visual studio is one of the most well known languages for the front-end programming. It provides a ‘Rapid Application Development ‘environment to the developers. It provides supports for the SQLCLIENT data access methods, which can be used as a powerful development tools. It also provides ActiveX Data Objects (ADO) access methods, which is useful in creating a web page, and writing DHTML applications. It has such tools that any programmer can have an attractive screen which he imagines. It is the most widely used languages and is more flexible. Also one can have the desired properties of the various commands to create textbox’s, labels, used in the screens. It also has the facility to create menu.

Various kinds of report and print options are available. Visual studio is very flexible language to develop the project as it provides ActiveX controls for the components that are very frequently used in the system designing. Special controls for the database are available for interacting with the database is available.

Microsoft SQL Server:

Microsoft SQL Server 2005 is used as a back-end for storing the database. Microsoft Access is most frequently used database package in back-end.

MS SQL Server is one of the leading Database Management System (DBMS) & RDBMS software for personal computer. MS Server helps you to design database files as per the requirements using SQL quires and as per the specified format. Once the database is ready, you can retrieve selected information from it. The best part is that data stored in the database is flexible, i.e. one can change or modify the contents as well as the structure of a database any number of times. So that in this system Microsoft SQL Server is used.

Windows 7
It is an operating System.
4. SYSTEM REQUIREMENT STUDY

4.1 USER CHARACTERISTICS

There mainly three users in this system. First is the admin, the second one is registered user and third one is guest.

Admin is user who maintains whole application. In this system the role of manager will be controlling and checking the application. The report formatting and controlling of each and every part of the system will done by him. The admin will be superior in this system. Admin will get a superior password. This password will useful to access any form of application.

Registered user is core part of this successful system. It is the user which registers their connection via this application. It accesses all the features that is give by the administrator. User can register refill, view clients information, transfer his/her connection from one place to another (if necessary), change his/her password, complain about services etc.

4.2 HARDWARE AND SOFTWARE REQUIRED

Hardware:
- I5 200 GHz.
- Minimum space 50 MB
- 512 MB RAM
- 500 GB HARDISK

Software:
- Windows 7/NT/2000 server and above versions.
- IIS Server Installed PC.
- Any compatible browser(Internet explorer, Mozilla Firefox)
4.3 **CONSTRAINT**

In our system we can make as much as possible to remove any mistake but the main disadvantage or constraint of the system we cannot generate any print out through this project because all the activity done automatically and the all the database maintain by the software.

Other constraint is the staff member has to follow the administrator he don’t go on his/her mind so this is makes system dependent but administrator don’t want to allow any possible mistake so all the activity which is most important this all activity control not to give any one.
5. SYSTEM ANALYSES

5.1 STUDY OF CURRENT SYSTEM

The gas agency is currently maintains purchase, sales and inventory manually, but there is a problem in the manually work, therefore the project is based on computerizing the system. It will include sales, service maintenance, and billing, maintaining the customer and distributor account and information.

The basic functioning of the agency is the transactions with the customers. The customer comes to the Shop register their refill or complain about the problem. If the customer asks for payment on credit he is allowed to do so and the transaction is made.

Collecting and gathering all the user requirements for the newly proposed system is very important aspect in the system development process in order to develop successful system. A show room follows a particular sequence of tasks to carry out the daily transactions. The stock and bills are to be maintained here according to the sales performed along with the maintenance of the customer information.

5.1.1 Maintenance

The maintenance is concerned with customer info and related with the solving their problems. These parts are maintained by the admin. The Admin is all about concerned with the administration of the web developing.

5.1.2 Clients Management

Another main parts of web application that is maintain by the administrator is clients management. This part is list the detail about the clients that situated in various city.

5.1.3 Customer Details

The customer related details are also maintained through tables like customer detail. Customer table maintains the customer id, customer name, address, phone, city and remaining amount to payment. Customer transformation table maintains the customer id, date of payment, payment amount, if he or she paid by check then check no and bank name.

5.1.4 Connection Details

This part is used to list the information about the connection or the user that are registered thru this websites. This details is stored in the register_mstr table. In this table there are no of coloumns like Conn no, name.city etc.
5.2 WEAKNESS OF CURRENT SYSTEM

From the old documents it was found that they face following problems with the old system.

1. Preparation of the bills when the items are sold on cash or credit.
2. Editing of the stock and rate of particular item as and when required.
3. Addition of new item into the existing list of items with its description.
4. Preparation of the Reports for customer showing the remaining amount and given payment by the specific customer.
5. Preparation of the Reports for us showing the remaining amount we have to pay to the distributor and given payment by us to the specific distributor.
6. Password protection for the system so that illegal users cannot enter the system.
7. To identify the current stock reports of the item.

5.3 REQUIREMENT OF NEW SYSTEM

To overcome the problems gas agency required a system that do all the work and provide security to their important document like the sales report. The system also must have to be easy and must be understandable. We have listed some points that gives a little overview of why a new system required & what functionality should it provide.

1. To access this application user must login an id and password.
2. There should be facility for entering the new items in the system.
3. Facility for changing the rate and editing the item.
4. Adding new Customer, editing the Customer Data.
5. Adding new Dealer, editing the Dealer Data.
6. Preparing the bill against the selling the product to the customer.
7. Maintain the Customer Account.
8. Maintain the data about services.
5.4 FEASIBILITY STUDY

Feasibility study of the system is a very important stage during system Development Life cycle. Feasibility study is a test of a system proposal according to its workability impact on the organization, ability to meet user needs, and effective use of resources. Feasibility study decides whether the system is properly developed or not.

Following aspects are taken into account during feasibility study

1) Technical feasibility: -

Technical feasibility centers on the existing computer system (hardware, software, etc) and to what extent it can support the proposed addition. This involves financial considerations to accommodate technical enhancements. If the budget is a serious constraint, then the project is judged not feasible. It is possible to afford this hardware as computers related works are also done so the hardware’s required are easily available.

If they already have good Computer Technicians then we can say that technically it is feasible for developed system.

2) Economic feasibility: -

Economic analysis is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. Otherwise, further justification or alterations in the proposed system will have to be made if it is to have a chance of being approved. This is an ongoing effort that improves in accuracy at each phase of the system life cycle.

3) Operational feasibility: -

It is understandable that the introduction of a candidate system requires special effort to educate, sell and train the staff to operate the system. Additional expense of training the users is not required. So the operational feasibility can be considered very feasible.
6. FUNCTION OF SYSTEM

6.1 USECASE

[Diagram showing the structure of the online gas agency with nodes for Registered User, Admin, Guest, Online Gas Agency, Admin, Service, Maintainance, Consumer Care, and Clients.]
7. DATA MODELING

7.1 CLASS DIAGRAM

- **Detail**
  - City
  - Address
  - clientInfo()

- **Refill Register**
  - UserId
  - Date
  - Fees
  - Reg_no
  - register();
  - registerInfo();

- **Register Mstr**
  - Id
  - Name
  - Lastname
  - Address
  - City
  - Pincode
  - Contactno
  - Email
  - Question
  - Answer
  - Cardno
  - Csv
  - registration();

- **Login**
  - Userld
  - Username
  - Password
  - CheckAuthentication();

- **Admin**
  - Username
  - Password
  - checkAuthenticate();

- **Consumer**
  - Id
  - Problem
  - Date
  - Comno
  - submit();
  - Cancele();
7.2 **SYSTEM ACTIVITY DIAGRAM**

- **User Login**
  - **Valid User**
  - **Invalid User**
  - **Report Enabled**
    - **Web access Enabled**
    - **Web access Disabled**
    - **Done Respective Process**
      - **Error Message Display**

Diagram: User Login flows to Valid User or Invalid User, then to Report Enabled, which leads to Web access Enabled or Disabled, then to Done Respective Process or Error Message Display.
8. FUNCTIONAL AND BEHAVIORAL MODELING

8.1 DATAFLOW DIAGRAM

LEVEL 0

User/Guest

Online Gas Agency

Administrator

Login

Refill Register

Maintainance

Solve Problem

Submit Problem

VSC
Online gas agency

**LEVEL 1**

- Administrator
  - 4. Maintaince
- User/Guest
  - 1. Login
  - 2. Registration
  - 3. Supports
- Consumer

- R_register
- Register_mstr
- User_mstr
8.2 CONTROLFLOW DIAGRAM

Start

User Type

Register

Guest

Refill Registration

Credit Paid

Take the coupon from Customer

Give Bill to the Customer

Perform Service

Web Access Enabled

Yes

No

End
9. **SYSTEM DESIGN**

### 9.1 DATABASE DESIGN

#### Admin

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Allow Nulls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
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<td></td>
</tr>
<tr>
<td>Password</td>
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#### Consumer

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<tr>
<td>Problem</td>
<td>nvarchar(50)</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>datetime</td>
<td></td>
</tr>
<tr>
<td>C_no</td>
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</table>

#### Detail

<table>
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<td></td>
</tr>
<tr>
<td>Address</td>
<td>nvarchar(50)</td>
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</tbody>
</table>
# Online gas agency

## Register_mstr

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<tbody>
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<td>Lastname</td>
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</tr>
<tr>
<td>Address</td>
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<td></td>
</tr>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Email</td>
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## Login

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</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Username</td>
<td>nvarchar(50)</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td>nvarchar(50)</td>
<td></td>
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</table>

## R_register

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<tbody>
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<td></td>
</tr>
<tr>
<td>Date</td>
<td>numeric(18, 0)</td>
<td></td>
</tr>
<tr>
<td>Fees</td>
<td>nvarchar(3)</td>
<td></td>
</tr>
<tr>
<td>Reg_no</td>
<td>numeric(18, 0)</td>
<td></td>
</tr>
</tbody>
</table>
9.2 INTERFACE DESIGN

LOGIN FORM
Online gas agency

REGISTRATION FORM

Name
Last Name
Address
City
Pincode
Contact No

VSC
**CONSUMER PAGE**

**ENTER YOUR COMPLAINT.**

- Replacing Rubber Tube
- Low Burning Flame
- Cylinder Leakage
- Water Quantity In Cylinder
- Low Quantity of LPG

<table>
<thead>
<tr>
<th>Name</th>
<th>Himmat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Kalaburi road</td>
</tr>
<tr>
<td>City</td>
<td>Rajkot</td>
</tr>
<tr>
<td>Date</td>
<td>1/01/2009 4:45 PM</td>
</tr>
</tbody>
</table>

Submit
PURCHASE FORM

CHANGE YOUR PASSWORD.

Username: [input field]
Current Password: [input field]
New Password: [input field]

Change
ADMIN PAGE

Vanaż Auto Gas

Enhanced Gas Logistics

ADMIN LOGIN

Admin Id

Password

Login
10. TESTING

Testing is the process carried out on software to detect the differences between its behavior and the desired behavior as stipulated by the requirements specifications.

Testing is advantageous in several ways. Firstly, the defects found help in the process of making the software reliable. Secondly, even if the defects found are not corrected, testing gives an idea as to how reliable the software is. Thirdly, over time, the record of defects found reveals the most common kinds of defects, which can be used for developing appropriate preventive measures such as training, proper design and reviewing.

10.1 TEST PLAN
The testing sub-process includes the following activities in a phase dependent manner:

a) Create Test Plans.

b) Create Test Specifications.

c) Review Test Plans and Test Specifications.

d) Conduct tests according to the Test Specifications, and log the defects.

e) Fix defects, if any.

f) When defects are fixed continue from activity.

10.2 TESTING STRATEGY:
The purpose of test management is to ensure that a testing strategy is both devised and applied that is efficient, effective and economic. The testing strategy should define the objectives of all test stages and the techniques that apply. The testing strategy also forms the basis for the creation of a standardized documentation set, and facilitates communication of the test process and its implications outside of the test discipline. Any test support tools introduced should be aligned with, and in support of, the test strategy.
10.3 TESTING METHODS:

Out of the above discussed testing methods, we adopted the Integration Testing and Unit Testing strategies. We divided all the main module of our project in the manageable units, prepared them individually and then tested them as per their working strategy. After the individual testing of each such module, we integrated them module wise and tested the whole modules individually. When we were satisfied with the working of each individual module, we tested them for the compatibleness of each module with the other one. Hence we travelled from the smallest manageable units to the whole project testing.
11. CONCLUSIONS

The design of the VANAZ GAS AGENCY is done by taking into consideration all the needs of the agency. 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 will is designed to save time and will reduce the complexity and is also user friendly.

FUTURE ENHANCEMENT

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.
12. REFERENCES

While developing the system I have referred the following books for guidance:

1) Inside c# - Part 1: ch.4,5,6,3 Part 2: ch.14,16,3
2) C# professional (WROX PROFESSIONAL) - Part 1: ch.8,9
3) System Analysis and Design by Elias Edward
4) Microsoft ADO.NET by Rebecca M. Riordn

Web sites:

1. www.planet-source-code.com/vb/scripts
4. www.c-sharpcorner.com/asp.net/