# C:\Users\Ak singh\Pictures\IGNOU IMAGES.jpg

**PROJECT PROPOSAL - (BCSP – 64)**

**ON**

##### DOMESTIC SUPPLIES SYSTEM

**SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF MASTER OF COMPUTER APPLICATION OF IGNOU, NEW DELHI**

SUBMITTED BY -

**ENROLLMENT NO :- 172522818**

**NAME :- VARUN VAID**

**UNDER GUIDENCE OF**

**RAJEEV KUMAR JHA**

**SUBMITTED AT**

**To**

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

(SCHOOL OF COMPUTER AND INFORMATION SCIENCE **(SOCIS),**

(IST FLOOR, DEC BUILDING, **IGNOU,** MAIDAN GARHI, New Delhi – 110068.)

**TABLE OF CONTENTS**

**Page No.**

1. Introduction of Project ….04
2. Objectives of Project ….06
3. Project category ….07
4. Tools/Platform of Project – H/W and S/W ….09
5. Design of Project ….10
   1. DFD ….10
   2. ER DIAGRAM ….13
   3. DATA STRUCTURE ….14
   4. No of Modules and Their Descripation ….17
   5. Process logic of modules ….18
   6. Validation Check ….21
   7. Types of Report generation ….22
6. Limitation of Project ….23
7. Futrure Scope of Project ….24
8. Biblography ….25

# TITLE OF THE PROJECT

SYSTEM

DOMESTIC SUPPLIES

**INTRODUCTION OF PROJECT**

Domestic Supplies System is a fair price shop. It sells goods like kerosene, raw rice and sugar. The quantity of the goods sold to each customer is depends on total number of members of a family. Goods are sold against ration card issued to head of family. The card contains details like personal details of each memmer of family, income of family, allocated number of cylinders etc. Head of family has to apply to authority by furnishing application with all details related to family members, residence address, income of the family, expected no of cylinders etc in order to get ration card. Domestic Supply Sytem having certain rules and regulations to allocate/supply requested products to customer. The card number starts from 1 and extends up to number of cards that are supplied in the sequential fashion. Details of all the customers who shop at the fair price shop is also provided . This gives details regarding each of the customer’s name, residence address, card number, income of family, total members present in the family, number of alloated cylinders.

Another table contains the details about the various card numbers Issued, the date on which card has issued, date on which last Purchase has made and status(active/notactive)i.e if the difference between date\_of\_issue and current date is more than 5 then card becomes inactive .

The third table contains the details regarding the card\_holder’s family, relative’s name, sex of the person, age and his/her’s relationship with the card\_holder. The product details are stored in a table . It contains the number of the product , description of the particular product , price of the product and the current month on which that quantity was received .

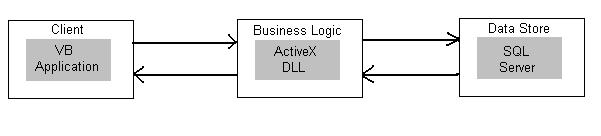
The purchase details are stored in a table. This table contains details regarding the number of the product purchased, the maximum quantity that can be availed by the card holder , quantity purchased by the customer , the date on which the product is purchased. All the transactions are recorded in this table. Another table is product transact. This includes the product number and the quantity left on a particular point of time .Then there are reports which are generated weekly , monthy, yearly according to the need.

**OBJECTIVE OF THE PROJECT**

As the title of the project suggests, the objective of this software is to automate all the works (excluding employee management) of Domestic Supplies System related with the management of Domestic cards and goods (items) with registration of customers, acceptance and maintenance of challan sent by supplier, maintenance of stock of goods, sales management of goods (items) and generating the related reports of sales and purchase of goods etc. Some of the features of this software would be:-

* Creating a system to automate the services offered by the Domestic Supplies System to its customer, this will be more flexible than manual system.
* All productsdetails will be available in the system in order to maintain stock inventory.
* Each report and status enquiery would be possible with proposed system.
* All sales and purchases reports will be avilablein seprate modules in order to get system more efficient and effiective so time can be saved.

**PROJECT CATEGORY**

* This project will be based on **three tier architecture.** The three tier architecture where the application will be divided into three logical constituents
* User Services – Provide services such as user interface. (VB.NET application in this case).
* Business services – Implement business rules (ActiveX DLL in this case)
* Data Services – Provide handling and validation of data. (MS SQL Server in this case) Disadvantages of the two tier architecture
* It puts extra load on the server

VB.NET

* It increases the network traffic capacity.
* Difficult to implement incremental improvements.
* Applications are bound to the data source.

**REASONS FOR USING VB.NET**

Microsoft is committed to VB.NET and is confident that the technology will continue to improve and grow along with the changes and improvements in the operating system used.

VB.NET enables rapid prototyping as it has various in built tools, making programming with VB.NET easy.

The developer can create COM components and web based application with ease.

**THE ADVANTAGES OF RDBMS**

A database system is essentially a sophisticated, computerized record keeping system, a repository for a collection of computerized data files. A database system maintains information and makes that information available on demand, for this purpose a database system provides set of facilities to perform such operations.The benefits of a database system over any traditional system are obvious as database is integrated as well as shared, thus a database eliminates redundancy and also as a consequence, database lets multiple users access the same piece of data. The most important advantage of the database is to maintain the integrity i.e. it insures that the change made to the database by authorized users do not result in a loss of data consistency and guard against accidental damage to the database.

RDBMS HAVE THE FOLLOWING FACILITIES

* Creation of files, Addition of data, Deletion of data, Modification of data.
* Retrieving data collectively or selectively.
* The data stored can be sorted or indexed at users discretion or direction.
* Various reports can be produced from the system. These may either be standardized reports or that may be specifically generated according to specific user definition.
* Mathematical function can be performed and the data stored in the database can be manipulated with functions to perform the desired calculations.
* To maintain data integrity and database use.
* Data integrity for multiple users.
* Providing form based interface for easy accessibility and data entry.

**TOOLS/PLATFORM, HARDWARE AND SOFTWARE REQUIREMENT SPECIFICATION**

### Tools/Platform

Project is developed using **VB.NET** & **SQL SERVER 2008** for storing data.

**Hardware requirement Specification**

Altogether a Personal Computer with fallowing components**:**

* Pentium dual core 2.0 GHZ Processor
* 4 GB RAM
* Hard Disk 500 GB
* Color Monitor
* Keyboard
* Mouse
* Printer

**Software requirement Specification**

The software which were required for developing the application are as under**:**

* **Platform : -** **Microsoft Windows 7,8, or 10**
* **Front End :- VB.NET**
* **Back End :- SQL SERVER 2008**
* **Documentation :- Microsoft office 2007**

**PROJECT DESIGEN**

**CONTEXT LEVEL DFD**

GOVERNMENT

AGENCY

GOVERNMENT

AGENCY

**CERTIFICATION & APPLICATION DETAILS**

**SUPPLY DETAILS**

**ORDER DETAILS SSUPPLY DETAILS**

FAIR PRICE

SHOPS

FAIR PRICE

SHOPS

**CUSTOMERS**

**APPLICATION RATION CARD &**

CUSTOMERS

**DETAILS SUPPLY DETAILS**

**1st  LEVEL DFD**

GOVERNMENT

AGENCY

FAIR PRICE

**SHOPS**

**APPROVED CERTIFICATION**

**SHOP DETAILS DETAILS**

**CUSTOMERS**

FORM DETAILS UPDATE VALID CITIZEN

MASTER

FOR RATION CARD DETAILS

UPDATE PRODUCT PRODUCT

MASTER

DETAILS

2ND LEVEL DFD

VALID DETAILS

**RATION CARD**

222.1

UPDATED

**CUSTOMERS**

CUSTOMER

**CUSTOMER MASTER**

DETAILS CUSTOMER DETAILS C

UPDATED

REQUIREMENT

DETAILS

PROVIDED GOODS

**CUSTOMER**

DETAILS

**CUSTOMER TRANSACT**

UPDA TE C

CUSTOMER FILE T

UPDATE PRODUCT

**PURCHASE DETAILS**

P

PURCHASE DETAILS

**ENTITY-RELATIONSHIP DIAGRAM**

# Holds

# Card

# Card Holder

**1**

**1**

### 

**Many**

**1**

# Sales to

# buy

### 

### 

### 

**M**

**1**

**Many**

**DATA STRUCTURE**

**M**

**1**

**M**

**M**

# Products

**1**

# Sale/

# Purchase

# Supplies to

# Shop

# Supplies

# Supplier

Table Name: UAccount

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| UserId | Char(10) | Primary key | Identity of User |
| vLoginName | Varchar(20) |  | Name of user |
| Password | char(10) |  | Password |
| Role | varchar |  | Role of the user |

Table Name: Card\_Details

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| Card\_no | Char(10) | Primary key | Identity of the Card |
| Holder\_name | Varchar(20) | Not Null | Name of the card holder |
| Total\_members | Number |  | No of total members |
| Cylinders\_allocated | Number |  | Allocated no of cylinders |
| Date\_Of\_Issue | Date |  | Date of issue |

Table Name: ProductDetail

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Product\_no | Char(10) | Primary key | Identity of the product |
| Product\_name | Varchar(20) |  | Name of the product |
| Unit\_of\_measurement | Money |  | Unit of measurement |
| Unit\_price | Money |  | Unit price |
| Description | Varchar(20) |  | Description of product |

Table Name: Supplier\_Details

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Supplier\_No | Char(10) | Primary key | Identity of supplier |
| Supplier\_Name | Varchar(20) | Not Null | Name of supplier |
| Phone | Number | Not Null | Phone no of supplier |
| Address | Varchar(40) |  | Address of supplier |

Table Name: tmpPurchaseSale

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Challan\_Bill\_no | Char(10) | Primary key | Temporary Identity of the challan and bill |
| Product\_no | char(10) | Foreign key | Identity of the product |
| Unit\_price | Number(4,2) |  | Unit sale price |
| Quantity | Number |  | Quantity of price |
| Total\_price | Number(4,2) |  | Total price of any type of product |

Table Name: Challans

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Challan\_no | Char(10) | Primary key | Identity of the challan |
| Supplier\_no | char(1) |  | Name of the supplier |
| No\_Of\_Products | Number |  | No of product purchased in challan |
| Total\_Quantity | Number |  | Total quantity of challan |
| Total\_price | Number(4,2) |  | Total price of challan |
| Date\_of\_purchase | Date |  | Date of purchase |

Table Name: Challan\_Purchase\_Details

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| challan\_no | Char(10) | Primary key | Identity of challan |
| Product\_no | char(10) | Foreign key | Identity of the product |
| Unit\_price | Number(4,2) |  | Unit cost price |
| Quantity | Number |  | Quantity of price |
| Total\_price | Number(4,2) |  | Total price of any type of product |

Table Name: Sales

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Bill\_no | Char(10) | Primary key | Identity of the challan |
| Card\_no | char(1) |  | Identity of the card |
| No\_Of\_Products | Number |  | No of product sold through a single bill |
| Total\_Quantity | Number |  | Total quantity of bill |
| Total\_price | Number(4,2) |  | Total price of a bill |
| Date\_of\_Sale | date |  | Date of sale |

Table Name: Billing\_Sale\_Details

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Bill\_no | Char(10) | Primary key | Identity of the bill |
| Product\_no | char(10) | Foreign key | Identity of the product |
| Unit\_price | Number(4,2) |  | Unit sale price |
| Quantity | Number |  | Quantity of price |
| Total\_price | Number(4,2) |  | Total price of any type of product |

Table Name: Stock

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Constraints | Description |
| Product\_no | Char(10) | Primary key | Identity of the product |
| Quantity\_Available | Number |  | Quantity of product available in stock |
| Reorder\_Level | Number |  | Re-order level of product |

**NUMBER OF MODULES AND THEIR DESCRIPTION**

1. **Secure Login**
2. **User Management**
3. **Issue of Ration Cards**
4. **Product Management**
5. **Supplier Management**
6. **Receive Of Challan (i.e. Purchase)**
7. **Maintenance Of Stock**
8. **Selling of the Products**
9. **Billing**
10. **Generating the Reports**

**PROCESS LOGIC OF EACH MODULE**

The project will be based on Multi-User approach, which means that multiple users can use the application simultaneously. Each user will be assigned a specific role and will have limited permissions to operate the application. User details are as below: –

**Administrator** – He will have full privilege to operate eniter system as per requirements of system. He/she can only will have permission to add new Login Id’s (Employees) to the system, change passwords, change connection settings and perform any other administrative functions which will be provided by application.

**Clerk** – He generate desired reports regarding Goods Details and updating status of the stock. He will be first point of customer complain which later will be forwarded to coustomer care department.

**Secure Login**

This will be very first module of this Project through which any of the unauthorized user will be checked and restricted to be logged in. With this we can maintain only authorized login. This will help to maintain security of system.

**User Management**

This module will enable the administrator to make the new user and delete the existing user along with the changing of the password of the existing users.

**Issue of Ration Cards**

Ration card will be issued by the authority and all the details of the card holder will be stored inside the database of Domestic Supplies System like name of head of family, residence address, phone and all details of complete family of card holder.

**Product Management**

This module will be responsible for managing all the details of Procuct like Product\_No, Product\_Name, Cost\_Price, Sale\_Price etc. The new fresh product can be added to the database, modified the existing one and delete all not getting products sold for long. This module will relate the master database of Product not in stock.

**Supplier Management**

This module will be used to maintain the details of all the supplier related with particular shop. Insertion, updating and deletion of the supplier will be done within this module.

**Receive Of Challan (i.e. Purchase)**

This module will be very usefull while maintaining all the purchase details of the products within the shop. All details of received challan will be stored inside the database, which results in update of the stock. This moldule will be also usefull in preparation of the report based on purchase of product.

**Maintenance Of Stock**

In this module user will not intract with system directly because the stock of the system will be automacally updated/maintained while making updates about each purchase and sale of any product. It means this module will be directly handled by the purchase and sale module by which the quantity of the product will be updated with currect stock (increased and decreased).

**Selling of the Products**

This module will be acting opposite of purchase module because the quantity of the product will decreas after each sales. One more difference that, cardholder will be participating in this module instead of the supplier.

**Billing**

This module will take care about sales of product and update in stock.

**Generating the Reports**

Generating the report will be last module of the Domestic Supplies System. All type of reports like Sales report, purchase report and billing report can be taken through this module.

**VALIDATION CHECKS**

* Provision for check for duplicate entry of the Product\_No if the product in stock i.e. if all the products will be sold from the system.
* Date will be not accepted before financial year date and after financial year date.
* System will not accept any character and negative values where we have to enter amount.
* Automatic generation of User Id, Product Id, date at the time of data entry and also have the option to change it.
* Can't delete detail information, which is a part of transaction and transaction available for that subject.
* We will maintain the master data and system can’t take other value in detail table.
* System considers only the existing values or details of master entry.
* System will check security at user level.
* There will be proper check for duplicate value in bill generation.
* Any unauthorized person can’t enter into the system because each and every user of this system will already validated in system. At the time of entry system will ask for the password.

**TYPES OF REPORT GENERATION**

REPORTS GENERATED

RATION CARD MAST :-

This Report will basically deal with ration card details of a person like Card\_holder\_no, Date\_of\_issue , Date\_last\_pur , Status, Holder’s name , Address , Qty\_pur, Amount paid by the holder. Fields for this report will be fetched from tables RATION\_CARD\_MAST, CITIZEN\_MASTER, PURCHASE\_DETAILS and PRODUCT\_MAST. Then printing will be done according to necessary format .

STOCK STATUS REPORT :-

This Report will deal with stock details and Fields for this report will fetched from table PRODUCT\_MAST and PRODUCT\_TRANSACT. Then printing will be done according to necessary format .

SALES REPORT :-

This Report will deal with the sales made by the Fair Price Shop. Frequecy of this report will be weekly , monthly and yearly. Fields for this report will be fetched from table PURCHASE\_DETAILS. Then printing will be done according to necessary format .

CUSTOMER DETAILS :-

This Report consist details of Card holder like Holder’s name , Address, Gender , Age, Income, total\_members and No. of cylinders allotted. Fields for this report will be fetched from table CITIZEN\_MASTER. Then printing will be done according to necessary format .

FAMILY DETAILS :-

This Report will consist of family details of the card holder and there relationships with the card holder. Fields for this report will be fetched from table FAMILY DETAILS. Then printing will be done according to necessary format .

CUSTOMER PURCHASE :-

This Report will deals with the products being purchased by the customer in a given month. Fields for this report are fetched from table PURCHASE DETAILS. Then printing will be done acording to necessary format .

**LIMITATION OF THE PROJECT**

* Needs Microsoft Windows 7 or higher Operating System
* Needs VB.NET and SQL Server 2008 to be installed on the system.
* RAM should be 2 GB for better run of the Project.

**FUTURE SCOPE OF THE PROJECT**

This project will be designed and developed in such a manner that it will provides maximum efficiency & speed up the system and will have vast scope of further development. Number of modules can be added without mach modifications in the database. It will be armed with a powerful query support system and capable of supporting advanced and complex queries for much more advanced reports.

This application will fits into the current scenario of information age. In future, we would update proposed system for some modifications, which can be used by modern **Domestic Supplies System** to automate their services, increase their efficiency and to make their presence felt in the present age of e commerce.

**BIBLOGRAPHY**

# WEBSITE –

# [www.google.com](http://www.google.com)

1. <http://www.microsoft.com/en-in/download/>
2. http://www.quackit.com/sql\_server/sql\_server\_2008/tutorial/

Refernce books (VB.NET)–

1. John Smiley, *Lern to program with VB.Net 2008 Express,* 26 Aug 2008
2. Gary Cornell, *Jonathan Morrison, Programming VB.Net : A Guide for experienced Programming,* 15 Oct 2001
3. Andrew Troelsen, *Pro VB 2008 and the .Net 3.5 platform (Windows.net),* 24 March 2008
4. IGNOU Blocks

Refernce books (SQL Server 2008)–

1. Leonard Lobal, *Andrew J. Brust, Stephen Forte, Programming Microsoft SQL Server 2008 (Pro Developer),* 29 Oct 2008
2. Robert Vieira, *Professional Microsoft SQL Server 2008 Programming,* 23 Aug 2009
3. IGNOU Blocks