Indira Gandhi national open university



Synopsis

On

Gift sales & inventory management system

Submitted by amit kumar sah

Guided by

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Title of the Project

The title of the presented project is “Gift Sales & Inventory Management System”.

This software is dedicated for automation of tasks of a gift shop. It will automate the sales and purchase management tasks of the shop by providing facility for data input and report generation through preformatted input forms and report forms.

If the user wants any report he has to enter just few details and click one or more button and the result will be obtained within a second.

Introduction of the Project

The presented projected is just an effort to minimize huge work of the client who get it very difficult to maintain all the records regarding their customers , vendors, products and so on . Earlier the client had to maintain huge notebook for keeping their customers record, Vendors record and products record. They also had to maintain the description of each gift item such as their purchase rate, sale rate, and quantity. In case Customer and Vendor, they had to maintain product order, payment, outstanding amount and many more. These type of work consume more time and decrease the transactions.

With the help of presented system/software, Now the client will be able to manage all these work in more efficient manner. The system will keep all records regarding an item such as cost rate sales rate, profit, quantity, expiry date and consumption of product in the market. The addition of new item, deletion and updating of existing record will be easy now. The software also maintain the records of existing customers such as name, address, contact, orders, payment, dues and full description of that people.

This software will provide facility for addition, deletion, updating and searching of records.

This software will use java in the front end and oracle-10g in the back end.

Introduction of the guide and bio-data

**MUKESH KUMAR JHA**

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**Career Objective**

To work in a dynamic company in the IT industry on development or consulting where my analytical/technical skills, knowledge, and work experience are utilized optimally. To work as Technology consultant harnessing various technologies. Endeavour to excel in the realm of Information Technology, through sincere work and devotion by ensuring improvement of my own growth and realize my vision, which in turn would take my organization to greater heights in team of prosperity and reputation.

***IT Skill Set***

**OS**: Windows 9x/NT 4.0, Win 2000, Win XP

**RDBMS**: SQL Server 2005, SQL Server 2000, Oracle9i

**Programming Languages:** C# 2005, VB.Net 2005, VB 6.0., Java, C, C++, DS

**Web Technologies**: HTML, ASP.Net, XML, Web Services

**Script**: JavaScript

**Others**: OOPS, Software Engineering and MS Office

**Summary of Experience & Skills**

* + - * Currently working with ANCHOR CONSULTANCY SERVICES., Patna.
      * 1 year experience at **Viaedge Softwarevt Technolo Ltd**., Patna.
      * 1 year experience at **DNR InfotrenzSolutions Pvt Ltd**, Patna.
      * 1.5 year experience at **LM Computer Education Pvt Ltd**, Patna
      * Experience in aspects of complete **SDLC** with sound programming skills in **VB,VB.NET & C# .NET, SQL Server** and web technologies like **HTML, Java Script, ASP.NET(with C#) .**

***Qualifications***

## Professional Qualifications

* M.C.A. from IGNOU, in 2007
* A.D.C.A. from IGNOU, in 2006
* B.C.A. from IGNOU, in 2005

# Academic Qualifications

* Intermediate from BIEC, in 2001
* Metric from BSEB, in 1999.

***EXTRA KNOWLEDGE***

ACCOUNTS-Able to Solved Problem Related to Financial Accounting.

Working Experience

1. Organization ANCHOR CONSULTANCY SERVICES., Patna.

Duration: From APRIL.-2009 to till date.

Job Title: Software Engineer.

1. Organization: Viaedge Softwarevt Technolo Ltd.., Patna.

Duration: From Mar.-2008 to Mar.-2009 date.

Job Title: Software Developer.

Project Worked on:

A. Project Title: WP\_EMS

Tools used: VB.NET, Oracle(SQL,PL/SQL)

Team SIZE: 02

Project Description:

This project based on N-Tier architecture with .Net framework with strong concept of OOPs, This application fulfils all the requirement of the Railway Workshop Project office Patna for Bill Passing and Accounting Related Work Like bill Receiving ,budget allotment, project wise fund allotment, cheque printing, cash book printing and so

Many types of report generation.

B. Project Title: Yojana Management System .

Tools used: VB.NET, Sql Server2005

Team SIZE: 02

Project Description s: The system stores information about the various type of yojana like INDRA AAWAS,NREGA,JRY etc in this software collect the detail information about the State, District, Subdivision,Block,GramPanchayat,Village,Tola and detail information about the work progress of various Yojana and Also print different type of report.

1. Worked with DNR Infotrenz Solutions Pvt Ltd, Patna.

Duration: Jan 2007 – feb. 2008.

Job Title: Software Developer.

A Project Title: Inventory Management for Pharmaceuticals Products.

Tools used: VB.NET, Oracle (SQL, PL/SQL)

Team SIZE: 02

Project Description: This system is developed for maintaining the sell

& purchase and bill preparations of Retailers as well as dealers.

B. Project Title: YourTourAndTravelCompany for Travel Company.

Tools used: .NET(c#), Oracle (SQL, PL/SQL)

Team SIZE: 02

Project Description: The system stores information about the employees, drivers, and Customers of YourTourAndTravelCompany. The system provides a Windows-based interface for accepting feedback details, assigning a feedback to an employee from the responsible operational department, accepting investigation details, and accepting corrective action details. In addition, it generates the Pending Feedbacks Report and Customer Feedback Investigation Report. The system provides a Web-based interface for accepting feedback details from a customer, displaying the status of the feedback to a customer, and displaying the new services offered by YourTourAndTravelCompany.

D. Project Title : Stock Management System for Construction Company.

Tools used : VB.NET, Oracle (SQL, PL/SQL)

Team SIZE : 02

Project Description : The system stores information about the material purchase, material issue on rent, material retune by the agency in which Condition as like damage, lost or well and then calculate there respective Charges and store hire details print the bill and e.t.c.

E. Project Title: Internal Examination System for SAFETY

Department of Construction Company.

Tools used: SP.NET(c#), Oracle (SQL, PL/SQL)

Time SIZE: 02

Project Description: The system is maintaining an online internal exam of a safety department on there intranet .in this system safety manger compose the question for internal progress test. And theirs employees solved the question and and system produced theirs concerning result to manager and employee.

4.Worked with LM Computer Education Pvt Ltd, Patna.

Duration: Apr 2005 – Dec. 2006.

Job Title: Faculty.

Work Description:-In this period I had worked as a Computer Trainer.

Personal Profile

 A hard-working and dependable

 Able to work well in a team.

 Extensively understand the important of friendliness, open-mindedness and thinking on my feet.

 as the confidence and determination to embark on a career in Information technology.

Core Strengths:

 Ability to understand and grasp things quickly and efficiently.

 Ability to perform meticulously and deliver timely results independently.

 Highly adaptable to all situations.

Personal Information

Name: Mukesh Kumar Jha

Father’s Name: Shri Harishchandra Jha

Birth Date: 4th May 1984

Gender: Male

Marital status: Unmarried

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Language Known : English & Hindi

Aim to Life : To prove myself as the best Software Professional.

Place:

Signature

Date: (Mukesh Kumar Jha)

Introduction of the client

This software is designed for a gift shop. The name of the shop is Prem Traders. It is a independent and private shop governed by a particular person. This shop does not belongs any organization. This shop has been giving service from 15 years. It contains various type of gift item just like household, toys, Archie and wishes gift. The full address of the software is given below.

* Name :- Prem Traders
* Address :- Churi Market , Nala Road, Patna
* Contact :- 9431457363

Objective of the project

The presented system is attempted to convert of the manual system of Gift Sales & Inventory System into a computer based solution. The main objectives of the project are as follows.

1. Capability :-
2. Increased processing speed :-

Manually calculation of bills in the shop used to take lot of time and was prone to errors. But after automation the software will be able to perform error free calculation within a second due to high speed.

1. Improved volume of work :-

The user will not have to worry about increasing volume of products and customers. All the voluminous details about product and customers will be handled efficiently and easly by this software.

1. Faster retrieval of information :-

In manual system if the user wanted to search a particular record for a product or customer .he had turn over many pages which consumed lot of time.

But with the help of this software to search any record about a product or a customer , the user has to just enter the product or customer Id and click on search button, result will be obtained within second. So this software will greatly increase the information retrieval speed.

1. Control :-

1. Great accuracy and consistency :-

This system will follow the rules of normalization and thus all information about a customer is stored in just one place. So there is no chance of data redundancy, duplicity due to this. There is a consistency in the system.

1. Better security :-

Unlike a manual system, only person who has been permitted to access the date of the system with a password, can access these records. This project provides three level of security namely data level, user level and administrator level.

1. Periodic backup :-

The system will be able to make backup periodically so that in case any loss of data , it can be handled by restoration. There is no need of extra paper work.

1. Graphical user interface :-
2. Enhanced communication :-

This system will provide a beautiful graphical user interface for easy communication so working on this software will always be a fun for its client.

Project category

My software uses feature of Relational Database Management System and Object Oriented Programming Services.

In RDBMS, data is stored on memory in very efficient way. Data is stored in the form of logical tables. It provides structured query language for all operation of the database like storing, retrieving and updating data. It provides high security through it’s access control mechanism.

Now a days, OOPS is most widely used by the programmers in programming fields. It provides very efficient feature like data hiding, encaptulation and polymorphism.

Data hiding is achieved by the use concept of class and object. Data hiding enables hiding the data in a program so that programmer could not accidently perform wrong manipulation on data.

Tools / platform:-

**Front-end:-**

This software uses java in the front end. Java is one of the most widely used front end language today. Java is a fully object oriented programming languages. It provides the feature of inheritance, due to which the existing code can be easily extended include new feature. This will enable the software to be easily expanded. It also provides the feature of data hiding to prevent the programmer from accidently performing wrong manipulation on the data items.

The java compiler compiles the source code into byte code. This byte-code is then run by JVM(Java Virtual Machine) with the help of own instruction set and due to this feature, Java programs are completely virus resistant. Thus, Java also provides very strong security mechanism.

**Feature of Java:-**

There are some features of java which is given below:-

1. Object oriented environment

2. Distributed

3. Interrupted

4. Robust

5. Exception handling

6. Portable

7. High Performance

8. Multithreaded

9. Dynamic

Back-end:-

The software uses oracle 10g in the Back-end. Oracle 10g uses the concept relational DBMS for manipulation and management of data. It uses SQL for storing, updating, retrieving or deleting data records from the database. Oracle 10g is easy and reliable to use, because it’s simpler coding. The data is stored in normalized form in the database which prevents redundancy and data duplicity due to which the system remains consistent, their information stored in the form of logical tables.

Oracle has introduced a large number of new features:-

1. Analysis queries.
2. Scalar sub-queries.
3. Joint.
4. Pivot insert statements and merge statement.
5. Exception handling.
6. Package.
7. Trigger.

Hardware and software specification

**Hardware requirement:-**

* Processor :- Intel pentium4
* RAM :- 256 MB
* Hard-disk :- 40 GB
* Printer :- HP LASER JET

**Software requirement:-**

* Operating System :- Windows Series (Professional, 2000, XP)
* Front-End :- Java
* Back-End :- Oracle 10g

Input of the project

There is some input function which is used to store the record information of the software.

* Product details
* Party details
* Customer details
* Payment details
* Bill generation details

Output of the project

This software also generates output reports on following criteria.

* Monthly sales report
* Generate bill report
* Stock details report
* Outstanding report
* Product details report
* Customer / vendor details report

Bill report request detail

Stock availability report request detail

Monthly sales report detail

Outstanding amount report request detail

Bill report request detail

Stock availability report request detail

Outstanding amount report request detail

Monthly sales report request detail

Bill payment

Issue bill

Invoice detail

Customer code

Customer detail

Party detail

Invoice payment

Product supply order

Supply product

PAR T Y

Party code

CUS TOMER

Ordered product delivery

**FIG: 0-LEVEL DFD**

**FIG: 1-LEVEL DFD**

Party detail

inward

PARTY

Party code

outward

Party

\_master

Product supply

order

Party invoice

Valid party code

Party\_invoice

Product\_

detail

Party payment detail

Bill detail

Generate bill

ordered

product

RETAIL CUSTOMER

payment

Payment detail

Customer detail

Bulk customer

Customer code

Customer\_

invoice

invoice detail

Customer invoice detail

billing

Issue bill

bill detail

payment

Payment details

Monthly sales report detail

Monthly sales report request detail

Outstanding amount report detail

Outstanding amount report request detail

Bill report detail

Bill report request detail

**FIG: 2-LEVEL DFD**

Customer invoice detail

Party\_invoice

Customer\_

invoice

Outstanding amount report detail

Monthly sales report detail

Customer

invoice detail

Party invoice detail

Product code detailail

Product code

bill detail

invoice detail

Issue bill

Retail\_

customer

Product\_detail

billing

Customer\_

invoice

BULK

CUSTOMER

Party

delivers

Product

Inward

to

recieves

recieves

Payment

Bill \_payment

To

outward

Customer or invoice

order

places

places

Issue bill

Bulk\_customer

Retail\_customer

Gift Group

**ER-DIAGRAM**

Data structure

1. Gift Group :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| group\_code | Char | 5 | primary key |
| group\_name | char | 20 |  |

1. Product details :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| pdcode | Char | 5 | primary key |
| pdname | Char | 20 | not null |
| group\_code | Char | 5 | foreign key |
| mfd | Date | ------- |  |
| doe | Date | ------- |  |
| uprice | Number | 10,2 |  |
| mrp | Number | 10,2 |  |
| tax | Number | 5 |  |
| qty | Number | 5 |  |

1. Party master :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| pcode | Char | 5 | primary key |
| pname | Char | 20 |  |
| organization | Char | 30 |  |
| address | Char | 50 |  |
| contact | Char | 12 |  |

1. Inward :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| inwno | Char | 5 | primary key |
| inwdate | Date | ----- |  |
| group\_code | Char | 5 | foreign key |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | Number | 10,2 |  |
| inwamt | Number | 10,2 |  |
| osamt | Number | 10,2 |  |

1. Outward :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| outno | Char | 5 | primary key |
| outdate | Date | ----- |  |
| group\_code | Char | 5 | foreign key |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | Number | 10,2 |  |
| outamt | Number | 10,2 |  |
| osamt | Number | 10,2 |  |

1. Customer\_invoice :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| invno | Char | 5 | primary key |
| invdate | Date | ----- |  |
| ccode | Char | 5 | foreign key |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | Number | 10,2 |  |
| invamt | Number | 10,2 |  |

1. Party\_invoice :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| invno | Char | 5 | primary key |
| invdate | Date | ----- |  |
| pcode | Char | 5 | foreign key |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | Number | 10,2 |  |
| invamt | Number | 10,2 |  |
| osamt | Number | 10,2 |  |

1. Bulk\_customer :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| ccode | Char | 5 | primary key |
| c\_name | Char | 20 |  |
| address | Char | 20 |  |
| contact | Number | 15 |  |

1. Issues\_bill :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| ccode | Char | 5 | foreign key |
| invno | Char | 5 | foreign key |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | number | 10,2 |  |
| tax | Number | 5 |  |
| dis | Number | 5 |  |
| billamt | Number | 10,2 |  |

1. Bill\_payment :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| ccode | Char | 5 | foreign key |
| invno | Char | 5 | foreign key |
| paidamt | Number | 10,2 |  |
| osamt | Number | 10,2 |  |

1. Retail\_customer :-

|  |  |  |  |
| --- | --- | --- | --- |
| FIELDS | TYPE | SIZE | DESCRIPTION |
| transno | Char | 5 | primary key |
| transdate | Char | 5 |  |
| pdcode | Char | 5 | foreign key |
| qty | Number | 5 |  |
| mrp | number | 10,2 |  |
| tax | Number | 5 |  |
| dis | Number | 5 |  |
| billamt | Number | 10,2 |  |

Module Description

1. *Gift group :-*

Every product in the gift shop belongs to a particular group of gift and this group detail of gift is stored in gift group table. In other words, gift group table describes the type gifts like house-hold, toys and Archie.

1. *Product Detail :-*

Product detail table holds every kind of details about the products in the gift shop.

In the gift shop different types of products are available each of which belongs to a particular product group. Gift group table holds detail of these product groups.

In product detail table, the primary key is pdcode and the foreign key is group\_code which refers to gift group table.

Gift group

Product details

1. *Party master :-*

* Party master tables holds details of all the vendors who supply to the Gift shop.

1. *Inward :-*

* In this module, Inward table holds details about every inward transaction of products from different branches of the gift shop in the city.
* Gift group and product detail table has been described in module 2.
* In inward table the primary key is inwno and the foreign key group\_code that refers to gift group table and pdcode refers to product detail table.

Gift group



Product details

1. *Outward :-*

In this module,

* Outward table contains details about every outward transaction or product from the gift shop to different branches in the city.
* Product table has been described in the module 2.
* In outward table, the primary key is outno and the foreign key are group\_code and pdcode which refers to the gift group table and product detail table respectably.

Gift Group

Outward

Product Details

1. *Customer\_Invoice :-*

In this module,

* Customer invoice table holds details of the invoicegiven by bulk\_customer.
* Bulk\_customer table holds personal information of the bulk\_customer like name and address.
* In customer\_invoice table, the primary key is invno. The foreign keys are ccode and pdcode which refers to the bulk\_customer table and product details table.

Bulk\_customer

Customer\_invoice

Product details

1. **Party\_invoice :-**

In this module,

* Party invoice table holds detail about inward invoice, outward invoice and party invoice.
* In party invoice table, the primary key invno. The foreign key is pcode and pdcode referencing party master and product details table.

Party master

Product details

Party\_invoice

1. ***Bulk\_customer :-***

In this module,

* Bulk\_custmer table holds personal details of the customer.
* In this table, the primary is ccode.

1. **Issue\_bill :-**

In this module,

* Issue\_bill table holds detail of the products in the customer invoice given by bulk\_customer.
* Bulk\_customer has been described in module 8.
* Customer\_invoice table has been described in module 6.
* In issue\_bill table, foreign keys are ccode, invno and pdcode.

Bulk\_customer

Customer\_invoice

Issue\_bill

**Product details**

1. *Bill\_payment:-*

In this module,

* Bill\_payment table holds the detail ofpaid amount and outstanding amount of bulk\_customer.
* In bill\_payment table, the foreign keys are ccode and invno which refers to bulk\_customer table and customer\_invoice table.

Bulk\_customer

Bill\_payment

Customer\_invoice table

1. *Retail\_customer* ***:-***

In this module,

* Retail\_customer table holds details of daily user transaction.
* In retail\_customer table, transno and the foreign key is pdcode which refers to product details table.

Product details

Retail\_customer

Report generation

My software has following reports.

1. Monthly Sales report :-

This report shows the details of all the products sold in a particular month. It contains details like product code, product name, quantity sold, total selling price and profit or loss.

1. Generate bill report :-

This report is used for creating bills for bulk\_customer and retail\_customer.

1. Stock details report:-

This report is used for showing the details of the stock, i.e it analysis that which product are available in the stock.

1. Outstanding amount report :-

This report is used for showing the outstanding amount of the bulk customers.

Testing process to be used

After the development of my software these two testing process will be used to test the software.

**White-box testing**, also known as structural testing is a method of testing software that tests internal structures or workings of an application as opposed to its functionality. This requires through knowledge of the internal structure of the system.

**Black-box testing**, also known as functional testing is a method of testing software that tests the functionality of an application as opposed to its internal structure or workings. This does not require through knowledge of the internal structure of the system.

Future scope & further enhancement

As this software is based on java, the code can be easily extended to add new features. In future if the user of the software requires some new functionality to be added in the software then it can be easily done by extending the existing code of the software to include the new functionalities.

Limitation of the project

My project has following limitations:-

* This software can not be used on the internet.
* This software does not provide any provision for backup and recovery, that is if data gets accidently delete then it can not be recovered.
* There is no provision for data fragmentation in this software. That is, if the value of the data greatly increases then it can not be fragmented and stored on the other hard-disk.

---------------------------------END----------------------------------