

Online Varieties Shop

BY

MD. KOUSIK AHAMMED (162-15-8247)

AL-MAMUN (162-15-8199)

AND

BARIUL ISLAM (162-15-8220)

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

Supervised By

MD.SWAKSHAR MAHMUD

Lecturer Department of CSE
Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY DHAKA,

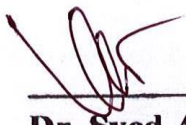
BANGLADESH

MAY 2019

APPROVAL

This Project titled “**Online Varieties Shop**”, submitted by Kousik Ahmmed, ID No: 162-15-8247, Al-Mamun, ID No: 162-15-8199 & Bariul Islam, ID No: 162-15-8220 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 04 May 2019.

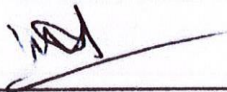
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Professor and Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

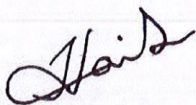
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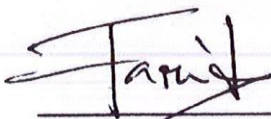
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Department of Computer Science and Engineering
Faculty of Science & Information Technology
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Associate Professor

Department of Computer Science and Engineering
United International University

External Examiner

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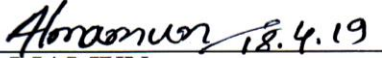
We hereby declare that, this project has been done by us under the supervision of **MD.SWAKSHAR MAHMUD**, Lecturer, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

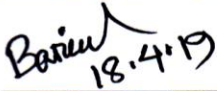
Supervised by:


MD.SWAKSHAR MAHMUD Lecturer Department of CSE
Daffodil International University

Submitted by:


MD. KOWSIK AHAMMED
ID: 162-15-8247
Department of CSE
Daffodil International University


AL-MAMUN
ID: 162-15-8199
Department of CSE
Daffodil International University


BARIUL ISLAM
ID: 162-15-8220
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty Allah (God) for His divine blessing makes us possible to complete the final year project successfully.

We really grateful and wish our profound our indebtedness to **MD.SWAKSHAR MAHMUD**, Lecturer, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of Software to carry out this project. Her endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism , valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to, **Dr. Syed Akhter Hossain**, Professor and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

Online Varieties Shop is the person, process and technology that a company wants to understand customers. It is an integrated approach to managing relationships by focusing on customer retention and improvement in relationships. The Online Varieties Shop has evolved from the progress of information technology and organizational changes in consumer-centric processes. Successfully Online Varieties Shop implementing agencies will enjoy customer loyalty and lasting profits. However, successful applications are disproportionate to many companies, for most of the reasons, they do not realize that Online Varieties Shop requires re-engineering of the company's wide, cross-operative, customer-based business process. Although a major part of Online Varieties Shop is the technology, there is a failure to view the Online Varieties Shop as a technology-based solution only. Technology, process, and people need a comprehensive and balanced approach to managing a successful Online Varieties Shop implementation

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Chapter 1

Introduction

1.1-Definition:

Online Varieties Shop, also known as Electronic Commerce or Internet Commerce, refers to the purchase and sale of goods or services using the Internet and the transfer of money and information for the execution of these transactions. Online Varieties Shop is often used to sell physical products online, but it also describes any commercial transaction through the Internet.

Where e-business refers to all aspects of managing an online business, Online Varieties Shop refers specifically to the transaction of products and services.

1.2-Objectivec:

- To make marketing and sales system easy.
- To provide good customer service.
- Discover new customers and increase customer profits.
- Cross-sell products increase more effectively.

1.3-The Basic Steps are:

- Identify a high potential product.
- Lock a manufacturer.
- Come up with a brand name and protect your online presence.
- Develop your website.
- Your Perfection and Shipping Figures.
- Establish Revenue Target.
- Design a marketing plan.
- Turn on your online store.

1.4-Purpose :

- Sell the best product and items as per customers needs.
- For getting higher revenue.
- Give product as per the latest technology.
- Mobile ready design.
- Giving best user experience while purchasing.
- Remarketing past visitors.

To search for the overall purpose, to attract and to get new clients, keep the organization and keep those who already have. Entice former clients back to fold, and reduce marketing and client service costs.

1.5-Document Convention

In this Online varieties system we use very simple layout. Bold face is used in common and sub-points or certain points of interest. Font size 14 and 12 are used in general terms and sub-topics. The remainder of the document will be written using standard font, font 12, Times New Roman.

1.6-Project Scope

This entire Online Varieties Shop system is web based and creating on open source applications and software. This system is developed in HTML, CSS3 and PHP with apache web server and database is My SQL. Also included Node JS for User Notification. It is eligible and compatible for every web browser and operating system.

Chapter 2:Background

The project has various perspectives with the available functions, user classes and features, operating environment, assumptions and dependencies, design and implementation limitations available in this section.

2.1-Project Features :

In our project we have three types of roles:

- Administrator
- Online Varieties Shop User
- Both (Administrator &Online Varieties Shop)

2.2-General Login

Every user login with their valid username and password. User having only admin access directly goes to admin panel and user having only Online Varieties Shop access goes to Online Varieties Shop panel and user having both accesses goes to app index.

2.3-Site Index

App Index contains two parts, Administrator &Produce This part is available only for users having both access (Administrator &customer).

Administrator User Management

Administrator generates the user and also can edit their details when required. If he wanted, he can add new user and inactive the existing user. Administrator can control user access for both panel (Administrator &User).

Set Target

Administrator assign sales target for the company and distribute the target between sales persons of the company.

2.4-Company Profile

Administrators can add or modify company names, logos, addresses and other information.

2.5-User Dashboard

The user can keep his contribution and compare with his sales goals. He also examines his upcoming task and campaign and sees his activities on the calendar.

2.6-Leads

The new client comes by the user and the Leads are generated while modifying. Leads are transformed into communication when the client is allocated for qualified and new opportunities. Once the transformation leads into contact, then it will end. Leads are accessible only for its owner.

Lead qualifying process consists of 5steps:

- Unqualified
- Primary
- Maturity
- Finding
- Qualified

2.7-Accounts

On this system, the account represents the client's company. Each account has multiple clients (contacts). The account is accessible for all users but only the owner can change.

Contacts

When lead is qualified, it transforms into contact. Contact also can be created directly. It mainly represents clients or customers.

Opportunities

When a scope is generated to make business to customer (Contact/Lead), then we called it opportunity.

Campaign

The user can campaign for his advertising business and campaign to set the

campaign's schedule. He can amend the campaign date, time, budget and actual costs. Users can add impressions, expected revenue and real revenue.

Back Office Setup

Email Configuration

Email Configuration is needed for sending email.

Products

Opportunity consists of different products. Products is created in BackOffice.

Product Group

It represents product category and needed to create product.

Source

It represents Lead Source and needed to create Lead.

Lead Category

It is needed to create Lead.

2.8-Challenges

Two issues will be faced with the development of this Online Varieties Shop system. One of the factors is the formula for customer disbursement and analysis. It was difficult to determine whether the ratio is correct or incorrect. In addition, it is also difficult to determine which type of analysis was helpful in the marker.

The second problem is the volume of testing data. It was difficult to show the actual answer to a small quantity of samples. For example, the accuracy of 10 samples is very weak, but if there were 10000 sample samples, the actual rate was correctly.

2.9-Project Schedule

Task Name	From	To	Duration
Project Planning Proposal	06-Nov-18	12-Nov-18	6 Days
Requirements Gathering and Specification	13-Nov-18	10-Dec-18	24 Days
Data Analysis	13-Nov-18	24-Dec-18	36 Days
Design and Coding	25-Dec-18	18-Mar-19	72 Days
Testing and Debugging	04-Mar-19	14-Apr-1	36 Days
Implementation and Submission	15-Apr-2	05-May-6	4 Days

Chapter 3:Requirement Specification

3.1-Introduction

To run efficiently every software need some basic requirements which are Hardware components and Software resources. These requirements are often known as Requirement Specification which is used as rules and regulation.

3.2Flow Chart

A flowchart is a formalized graphic representation of a logic sequence, work or manufacturing process, organization chart, or similar formalized structure. The purpose of a flow chart is to provide people with a common language or reference point when dealing with a project or process.

Flowcharts use simple geometric symbols and arrows to define relationships. In this Online Varieties Shop software, the beginning or end of software is represented by an oval. A process is represented by a rectangle; a decision is represented by a diamond.

We follow this flow chart shown in Figure 3.2.1 in our entire Online Varieties Shop project.

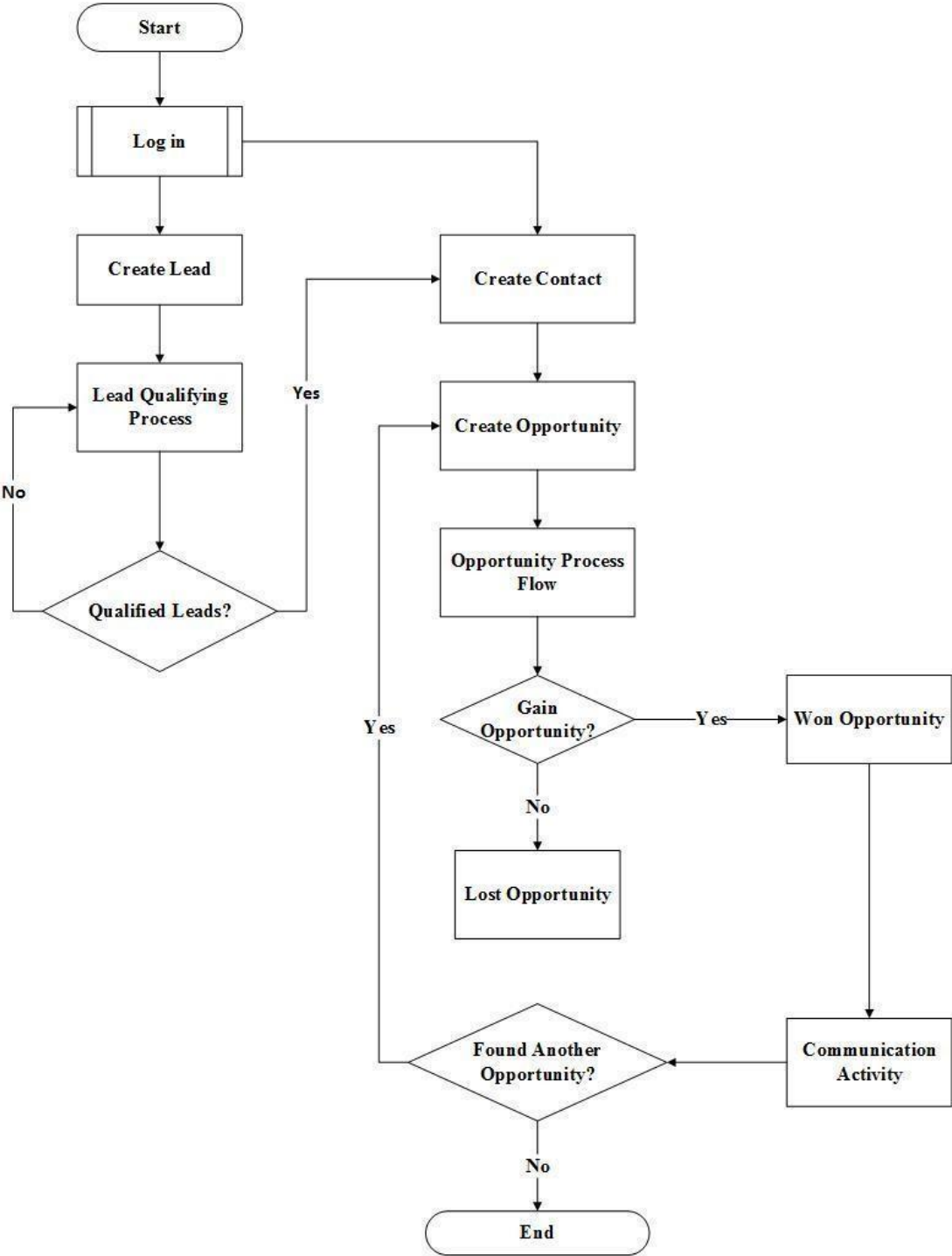


Fig: 3.2.1 in our entry online varieties project

3.3-General System Requirements

General system requirement deals with both least requirements of hardware and software that is required to run the optimal functioning of an application. To run “Online Varieties Shop” application on a website following things should be required:

- Operating System
- Browser (Firefox, Chromate.)
- Internet Connection
- PC or Mobile devices

Using above software and hardware specification one should be able to work with “Online Varieties Shop”.

3.4-Development Tools

A software development tool is an application or program that software designers and developers can use in order to create, maintain, debug, or support other applications or programs. To develop “online varieties shop” applications following tools are used:

- PHP
- MYSQL
- Nodes
- HTML
- CSS
- Bootstrap
- query
- Ajax
- JavaScript
- Plugging (Form Validation, Calendar, Date-picker, Summer-note, Loader, Image-viewer, Socket)
- IDE (Sublime Text, Atom, Notepad++, Dreamweaver, Visual Studio)
- Graphics Editor (Adobe Photoshop, Adobe Illustrator)
- Server(Linux)
- Browser (Firefox, Chromate.)

Above software and hardware specification are used to develop “Online Varieties Shop”.

UML Class Diagram:

Class diagram is a static diagram. It represents the static view of an application. Class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application.

Class diagram shows a collection of classes, interfaces, associations, collaborations, and constraints. It is also known as a structural diagram.

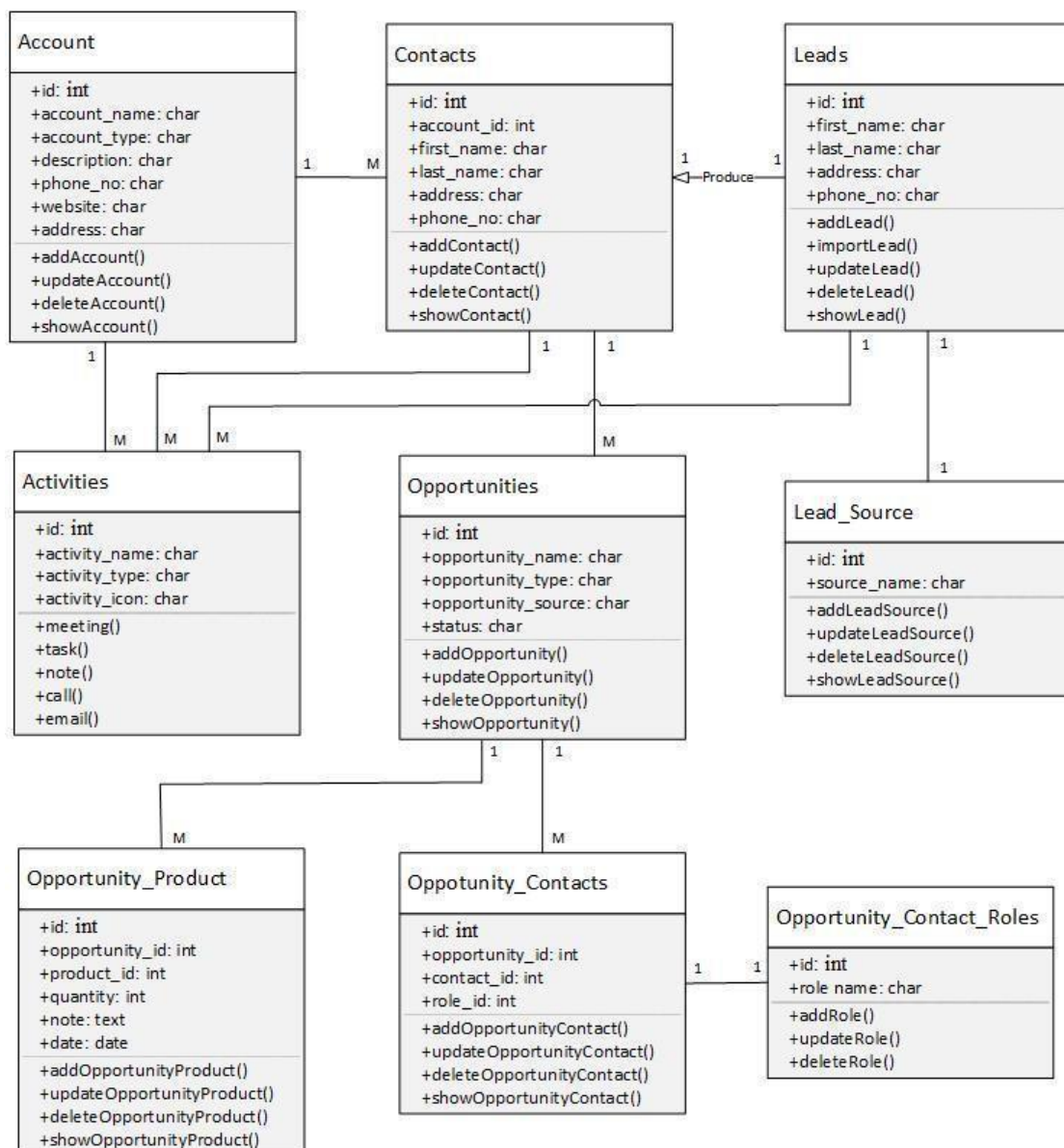


Fig:3.2.2-UML Class Diagram

Chapter 4: Design Specification

This Chapter contains the summary of user interface of our Online (Online Varieties Shop) Software.

4.1-User Interfaces Login Page:



The image shows a login page for Daffodil International University. At the top, there is a header with the university's logo and name. The main content area features a login form with two input fields: 'Email' and 'Password'. The 'Email' field has a placeholder text 'Email' and a user icon. The 'Password' field has a placeholder text 'password' and a lock icon. Below the password field is a link labeled 'Forgot password?'. A 'Login' button is positioned to the right of the password field. At the bottom of the page, there is a copyright notice: 'Copyrights © 2018 Copyright DIU. All right reserved !!!'.

Fig:4.1.1 Login Page.

Index:

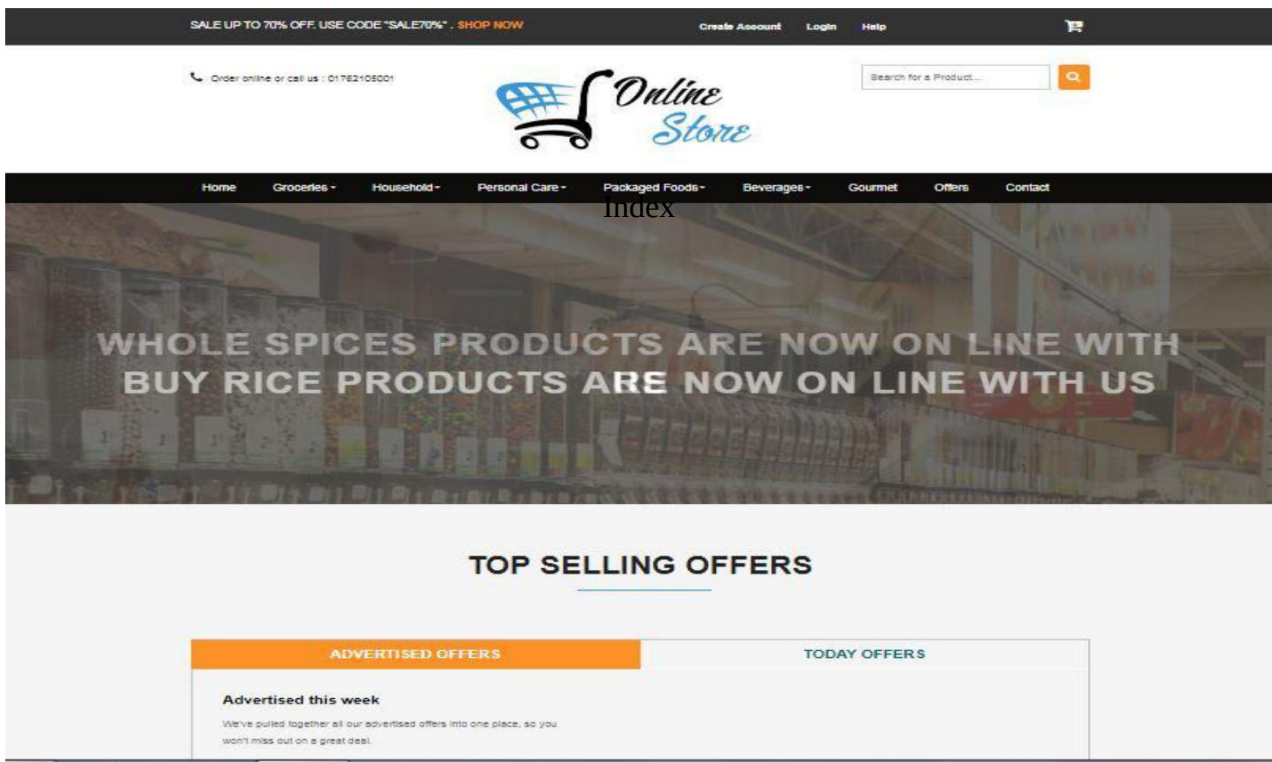


Fig: 4.1.2 Index Page

4.2-Company Target:

Company Target You are here: Company Target

Create Company Target

Date Range *

Form

To

Value

Amount

Create Company Target

Back to List

Fig: 4.1.3- Index and company target

4.3-Employee Create:

Employee Basic Info.

You are here: Employee Basic Info.

Employee Create

Employee ID *

00004

Name *

Name

Surname

Surname

Designation *

Select

Job Area

Select

Timezone *

Select

Report To *

N/A

E-mail *

E-mail

Password *

Password

Create Employee

Back to List

Fig: 4.1.4 Employee Create:

4.1.5 Lead Create:

The screenshot shows a web application window titled "Lead Create". It is divided into two main sections: "Lead" and "Import Leads".

Lead Section:

- Name Title:** A dropdown menu with "Select" as the current selection.
- First Name:** A text input field with "First Name" as a placeholder.
- Last Name *:** A text input field with "Last Name" as a placeholder.
- Surname:** A text input field with "Surname" as a placeholder.
- Designation:** A text input field with "Designation" as a placeholder.
- Department:** A text input field with "Department" as a placeholder.
- Target Product:** A dropdown menu with "Select" as the current selection.
- Address:** A large text area with a placeholder.
- Street:** A text input field with "Street" as a placeholder.
- City:** A text input field with "City" as a placeholder.
- State:** A text input field with "State" as a placeholder.
- Post Code:** A text input field with "Post Code" as a placeholder.
- Country:** A dropdown menu with "Select" as the current selection.
- Lead Owner:** A dropdown menu with "Sumon" as the current selection.

Import Leads Section:

- Mobile:** A text input field with "Mobile Number" as a placeholder.
- Office Phone:** A text input field with a phone icon and "Office Phone" as a placeholder.
- Fax:** A text input field with "Fax" as a placeholder.
- Website:** A text input field with "http://" and "Website" as placeholders.
- Email:** A text input field with "Email" as a placeholder.
- Company *:** A text input field with "Company" as a placeholder.
- Industry:** A dropdown menu with "Select Industry" as the current selection.
- No. of Employees:** A text input field with "Employees" as a placeholder.
- Description:** A large text area with a placeholder.
- Rating:** A dropdown menu with "Select Rating" as the current selection.
- Leads Source:** A dropdown menu with "Select Leads Source" as the current selection.
- Campaign:** A dropdown menu with "Select" as the current selection, accompanied by search and close icons.
- Referred By:** A text input field with "Referred By" as a placeholder.

At the bottom of the form, there are two buttons: "Create Lead" and "Back to List".

Fig:4.1.5 Lead Create

4.1.6 Import Leads

The screenshot shows a web application window titled "Lead Create". It is divided into two main sections: "Lead" and "Import Leads".

Import Leads Section:

- Select CSV file *:** A text input field with a "Choose file" button next to it.
- Instructions:** A block of text stating: "[Select a file on your computer that contains the data that you would like to import, or download the template to get a head start on creating the import file. [You can download Import File Template](#)]. You can give maximum 8000 line at a file. To create new record give ID greater than last CSV ID."
- Options:** Two checkboxes: "Create new records by prepared data" (checked) and "Update existing records by duplicate data. [Duplication depends on duplicate ID]" (unchecked).
- Buttons:** "Finish" and "Back to List".

Fig: 4.1.6 Import Leads

4.1.7-Account Create

Account Create

Account Name *

Account Name

Type

Select

Website

http://Website

Description

Description

Billing Address

Full Address

Street

Street

City

City

State

State

Post Code

Post Code

Country

Select

Shipping Address

Full Address

Street

Street

City

City

State

State

Post Code

Post Code

Country

Select

Parent Account

Select

Phone

Phone Number

Industry

Select

No of Employee

No of Employee

Owner

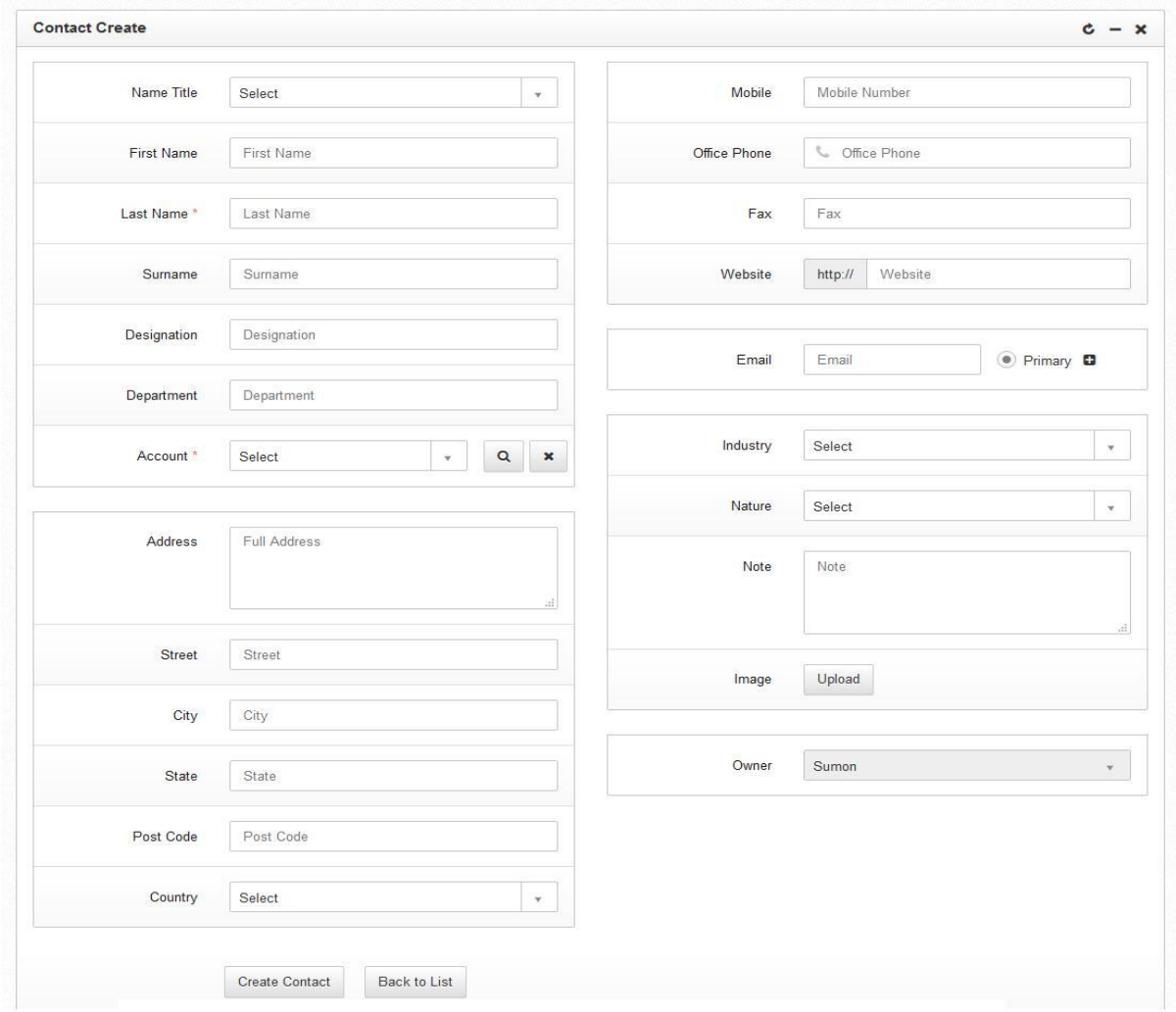
Sumon

Create Account

Back to List

Fig: 4.1.7-Account Create

4.1.8 -Contact Create



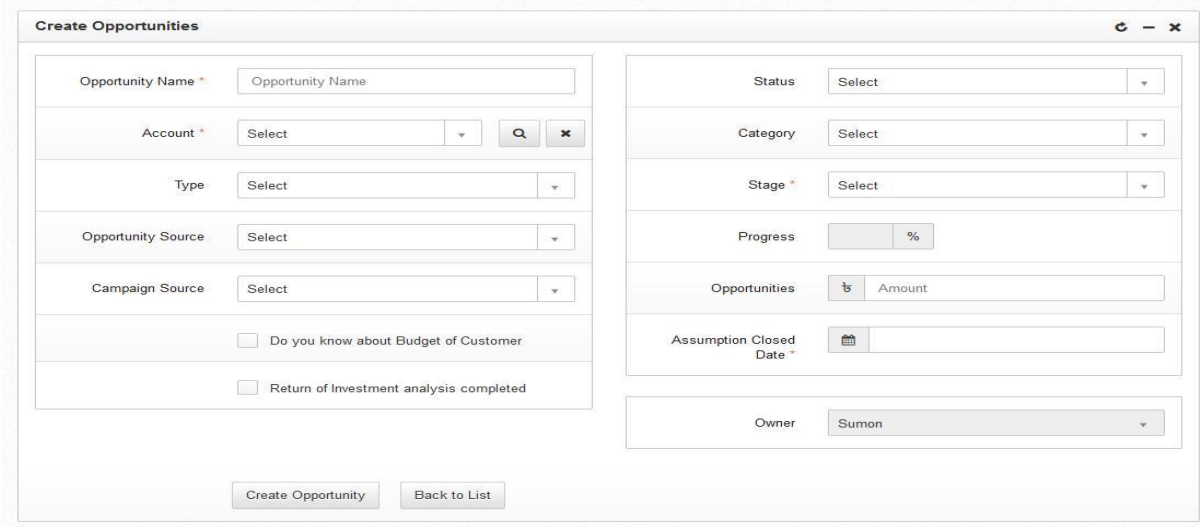
The 'Contact Create' form is a web-based interface for adding new contacts. It is organized into two main columns. The left column contains fields for personal and organizational details: Name Title (dropdown), First Name, Last Name (marked with an asterisk), Surname, Designation, Department, and Account (dropdown with search and delete icons). Below these is a section for the address, including a large text area for the full address, and separate fields for Street, City, State, Post Code, and Country (dropdown). The right column contains contact information: Mobile (with a mobile number field), Office Phone (with a phone icon), Fax, Website (with a URL field), Email (with a primary contact radio button), Industry (dropdown), Nature (dropdown), and a Note field. There is also an Image upload button and an Owner dropdown menu. At the bottom, there are 'Create Contact' and 'Back to List' buttons.

Name Title	Select
First Name	First Name
Last Name *	Last Name
Surname	Surname
Designation	Designation
Department	Department
Account *	Select
Full Address	
Street	Street
City	City
State	State
Post Code	Post Code
Country	Select
Mobile	Mobile Number
Office Phone	Office Phone
Fax	Fax
Website	http:// Website
Email	Email
Industry	Select
Nature	Select
Note	Note
Image	Upload
Owner	Sumon

Create Contact Back to List

Fig: 4.1.8 -Contact Create

4.1.9-Opportunity Create



The 'Create Opportunities' form is a web-based interface for adding new sales opportunities. It is organized into two main columns. The left column contains fields for identifying the opportunity: Opportunity Name (marked with an asterisk), Account (dropdown with search and delete icons), Type (dropdown), Opportunity Source (dropdown), and Campaign Source (dropdown). It also includes two checkboxes: 'Do you know about Budget of Customer' and 'Return of Investment analysis completed'. The right column contains fields for tracking and managing the opportunity: Status (dropdown), Category (dropdown), Stage (dropdown), Progress (with a percentage field), Opportunities (with a plus icon and amount field), Assumption Closed Date (with a calendar icon), and an Owner dropdown menu. At the bottom, there are 'Create Opportunity' and 'Back to List' buttons.

Opportunity Name *	Opportunity Name
Account *	Select
Type	Select
Opportunity Source	Select
Campaign Source	Select
Do you know about Budget of Customer	
Return of Investment analysis completed	
Status	Select
Category	Select
Stage *	Select
Progress	%
Opportunities	Amount
Assumption Closed Date *	
Owner	Sumon

Create Opportunity Back to List

Fig: 4.1.9 Opportunity create

4.1.10 Opportunity Process Flow

Opportunities You are here: ↑ Opportunities

5000 Hard Disk to Shimul IT ↻ - ✕

Account Name: Shimul IT Close Date: 28/02/2018 Amount: ₳75000000.00 Opportunity Owner: Sumon

1 → Initial 2 → Analysis 3 → Presentation 4 → Proposal 5 → Negotiate 6 → Closed Won

Progress 100% Completed

INFORMATION ✎ Edit	
Opportunity Amount:	₳75,000,000.00
Proposal Amount:	₳0.00
Actual Amount:	₳0.00
Close Date:	28/02/2018

SUCCESS!

Congrats!

Fig: 4.1.10-Contact Create

4.1.11 Task Create

Task You are here: 👤 Task

Task Create ↻ - ✕

Subject *

Date Range *

Priority * ▼

Description

Status * ▼

Contact Person

Related To

Assign To *

Fig: 4.1.11 Task Create

4.1.12 Note

Note You are here: > Note

Note Create - x

Subject *

Note

B U sans-serif ▼ ▼

Related To ▼ ▼

Assign To * ▼

Create Note

Back to List

Fig 4.1.12 Task Create

©Daffodil International University

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4.1.13 Email Create

Email

You are here: Email

Email Create

Email From *

Select Email From

▼

Contact Person *

▼

Search Lead

Q

×

Related To

▼

Search Account

▼

Q

×

Subject *

Subject

Details

▼

B

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sans-serif ▼

▼

▼

GO

×

</>

?

Attach Files

Send

Back to List

Fig: 4.1.13 Email Create

Performance Requirements

Performance requirements of Online Varieties Shop

Performance of **Online Varieties Shop** deployment is dependent on a number of factors related to the infrastructure and controller services. It is recommended to use high performance Computer or Mobile Device and reliable internet connection.

Security Requirements

Following steps should take to secure **Online Varieties Shop** hypervisors:

- Should must use both firewall and Intrusion Prevention System
- Strong Password Policy & Password aging policy should enforce mandatorily
- Implement two steps authentication

Communications Interfaces

To send sent Email requires SMTP server. Due to lack of hardware resource we have not configured any local SMTP server. We have used Gmail SMTP sever to send email. To get real time push notification we have integrated Node JS.

Chapter 5:Implementation and Testing

5.1-Data Flow Diagrams

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. A DFD describes what data flow (logical) rather than how they are processed, so it does not depend on hardware, software, data structure or file organization.

Data flowcharts can range from simple, even hand-drawn process overviews, to in- depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one. Like all the best diagrams and charts, a DFD can often visually “say” things that would be hard to explain in words, and they work for both technical and nontechnical audiences, from developer to CEO. That’s why DFDs remain so popular after all these years. While they work well for data flow software and systems, they are less applicable nowadays to visualizing interactive, real-time or database-oriented software or systems.

Data flow diagrams are one of the three essential perspectives of the structured- systems analysis and design method. The sponsor of a project and the end users will need to be briefed and consulted throughout all stages of a system's evolution. With a data flow diagram, users are able to visualize how the system will operate, what the system will accomplish, and how the system will be implemented. The symbols used to prepare DFD do not imply a physical implementation. The four basic symbols used to construct data flow diagrams are shown below:

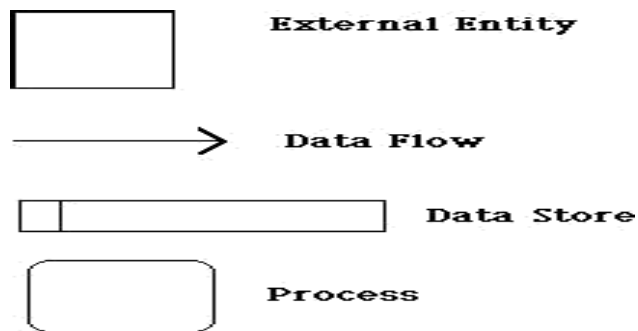


Fig: 5.1.1: Symbols of Data Flow Diagram

These are symbols that represent data flows, data sources, data transformations and data storage. The points at which data are transformed are represented by enclosed figures, usually circles, which are called nodes.

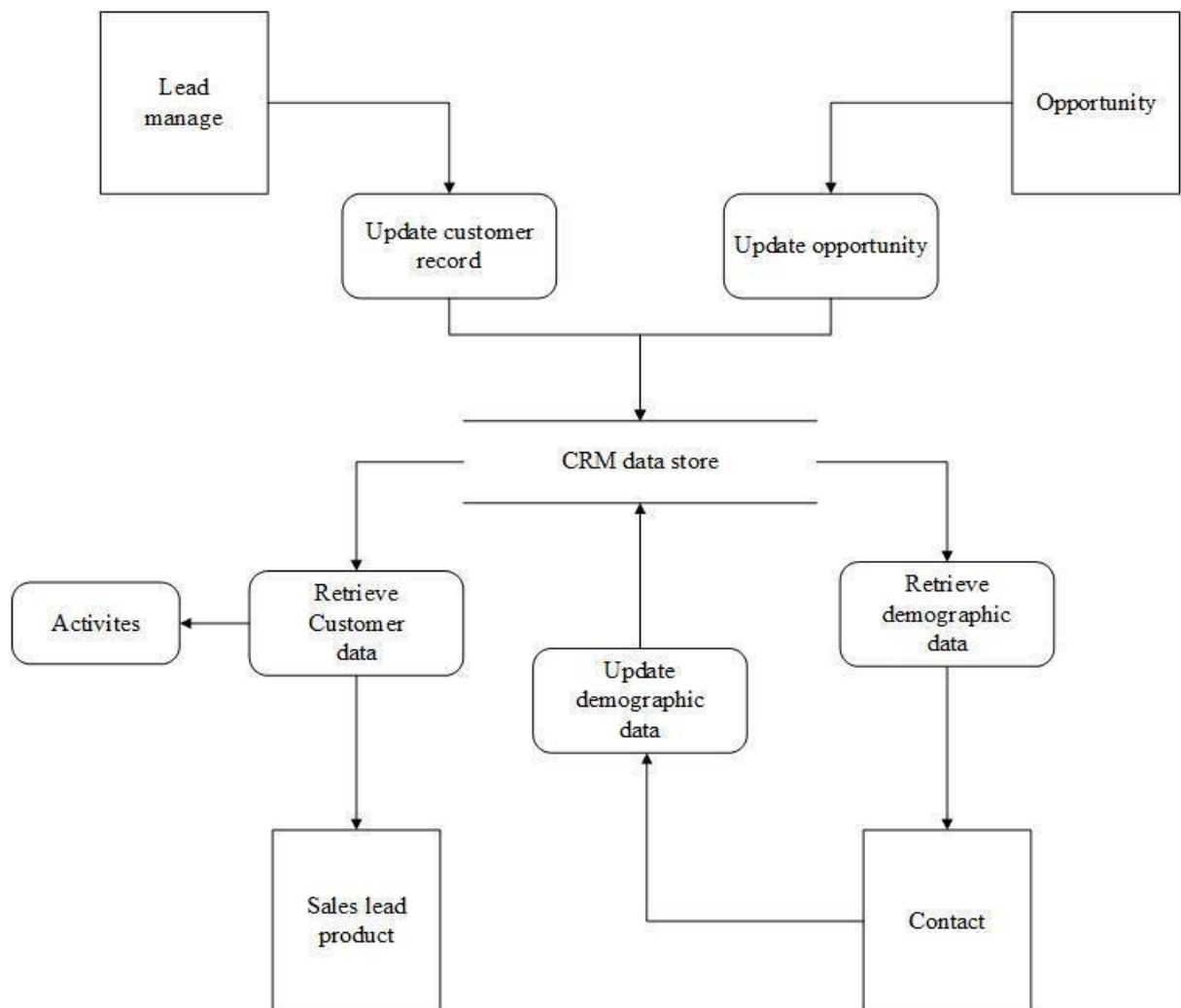


Fig:5.1.2 Data Flow Diagram of online CRM

5.2-Database Design

A database design is a collection of stored data organized in such a way that the data requirements are satisfied by the database. The general objective is to make information access easy, quick, inexpensive and flexible for the user. There are also some specific objectives like controlled redundancy from failure, privacy, and security and performance.

A collection of relative records makes up a table. To design and store data to the needed forms database tables are prepared. Two essential settings for a database are:



Primary key: - A primary key is a special relational database table column (or combination of columns) designated to uniquely identify all table records.



Foreign key: - A foreign key is a column or group of columns in a relational database table that provides a link between data in two tables.

5.3-E-R Diagram:

Entity Relationship Diagram, also known as ERD, ER Diagram or ER model, is a type of structural diagram for use in database design. An ERD contains different symbols and connectors that visualize two important information; the major entities within the system scope, and the inter-relationships among these entities.

It is most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. They use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes.

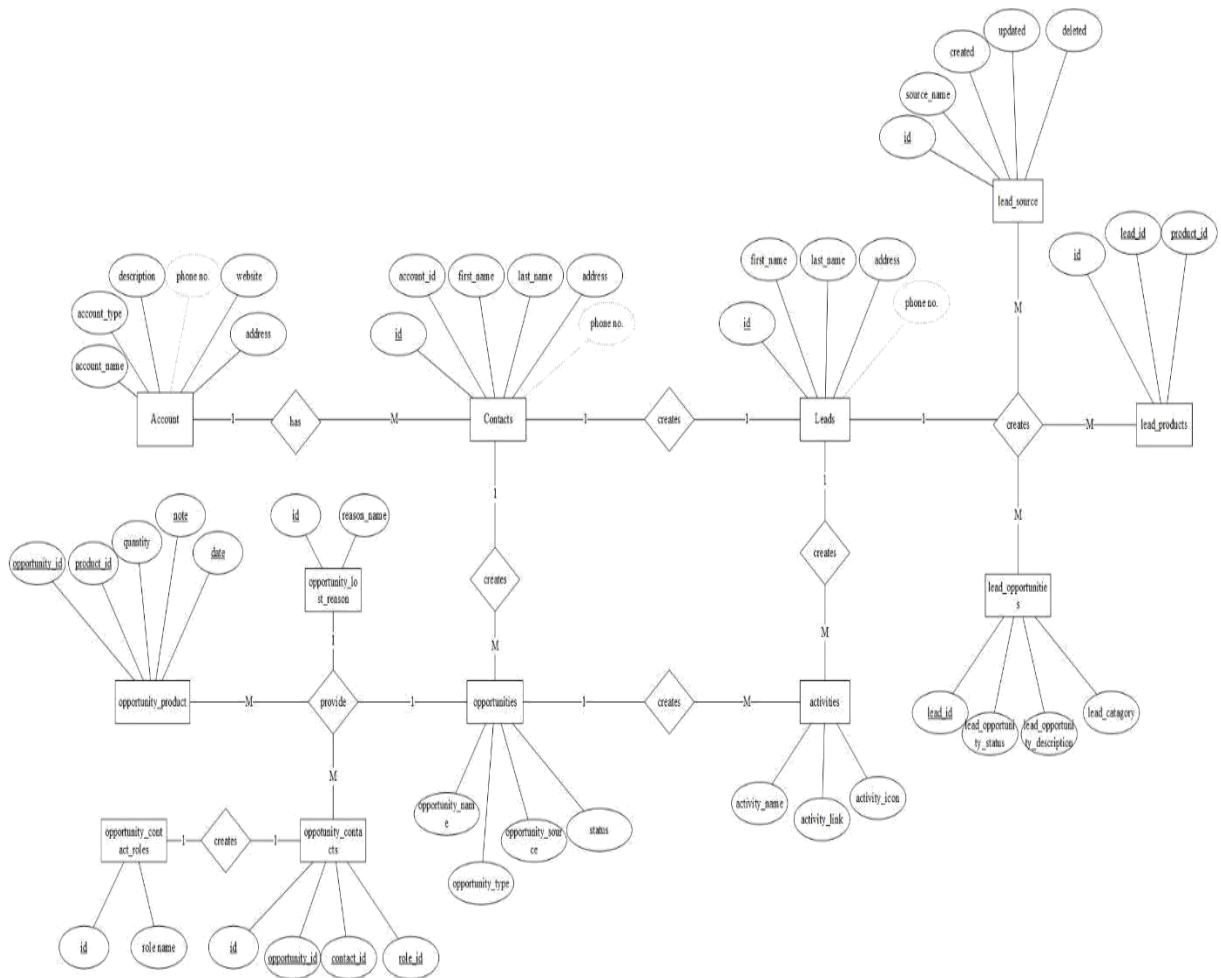


Fig: 5.1.3 E R Block Diagram

Chapter 6: Conclusion and Future Scope

6.1-Discussion and Conclusion

The conclusion that this project has to be achieved is to work with sincere efforts. The requirements have been met in most cases and the remaining requirements have been met, which may end in the future.

We tried to implement PHP's best practices and framework. We implement the MVC design pattern with front template like Smarty. We have worked PHP for the first time on this project. So sometimes we encounter some problems while working. We have tried to implement node JS, Relational Database and Advanced database features in our project.

6.2- Scope for Further Developments

In the near future, we will try to apply artificial intelligence (AI) based features to our project. By collecting user experience and analyzing user data, we can more effectively develop our relationships with the customer. We can make our marketing policies more effectively by communicating with the user. This is an opportunity that we will try to update in the near future.

Appendices

Appendix A: Glossary

Specification AI: Artificial Intelligence

PHP: Hypertext Preprocessor HTML: Hypertext Markup Language CSS:

 Cascading Style Sheets

UML: Unified Modeling Language

ERD: Entity Relationship Diagram

DFD: Data Flow Diagram

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