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CRM Portal

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CRM PORTAL

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With a Major in Computer Science



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ABSTRACT

The aim of this application is to automate the existing system of operations of customer relationship management (CRM) by establishing the relationship of the customer with the management and employees of the organization through a web portal. The portal helps to improve the customer service, maintain relationship of customers and sales department, streamline the workflow and grow the organization, thus maximizing profits. The higher management can monitor and check reports, helping them make business decisions using the data.

The application will be organized, user friendly, mobile compatible and will have smooth navigation using common functions in the header and footer. The portal helps the manager to make announcements which can be viewed by all the staff members in order of date. This portal facilitates the user to get general information about their clients, contact information, projects and special comment on prospects and clients for future references. It allows managers and above level staff to add special comments, if needed. A search function is available for quick searching of customers, projects and any other activities by name.

The created database supports the portal and its functionalities. The functionalities include sales management, contact management, reports and integration on social media. Social media integration helps us promote our services through the online social world whereas the reports helps the top-level management in decision making through the data collected. Also, the portal will have different type of logins as per the types of user, for example, sales manager, sales staff, customer, management.

This portal will help improve the business of the company making the staff more time efficient and organized. The staff will have a better knowledge of their customers and would be able to provide better solutions to them. As for the prospects, staff can go after them and can access detailed information to turn them into clients. The high-level management can monitor each customer project and staff performance and can make informed decisions from the data collected.

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1 Project Description

The CRM portal created help manage company's relation and interaction with existing and future customers. It also attracts more customers to the company by giving it a global presence with the help of social media and providing simplified solutions to customer management, order management and product management.

For customers, this portal records their activity and history, enabling the management to make better business decisions in terms of:

- What the customer wants?
- How much business the customer gave to the company?
- Is the customer eligible for the loyalty program?

For management and staff, the portal records all the sales, prospects and deals the staff made, enabling the management to make better business decisions in terms of:

- Who is employee of the month?
- Who is eligible for promotions?
- Whom to fire?
- Whom to give a bonus?
- Which employee should develop skills?

With these questions answered the management would have more time to focus on important business decisions like expanding the business, generating more revenues and acquiring more customers. Although this CRM can act like a good enabler for other projects but currently the data collected by each click on the portal is enriching the company. The code flexibility allows this CRM to integrate with other applications for reporting and the reports can be migrated using Microsoft Excel, PDF, CSV. Reports can also be copied and printed if required. This portal can act as a base for future projects of a company because the data collected using this portal can be used for multiple benefits.

1.1 Competitive Information

The applications and services with which our CRM PORTAL will directly compete are contact management, sales management, product management, reporting and monitoring. We can create customer profiles in detail for customer and track all the sales for any period. This eventually allows the management to make special deals to customers. Similar to other successful CRMs this product helps manage customers efficiently and it is user friendly with added security features like admin login. admin approvals make this product a good competitor in the electronic commerce market. The social media integration gives us a kick start and helps our product connect with prospects and future customers with one click. The CRM tools which are tough competitors with our product are

- NUTSHELL CRM
- ZOHO CRM
- SALESFORCE CRM
- PIPEDRIVE CRM.
- NIMBLE CRM

1.2 Relationship to Other Applications/Projects

The main purpose of CRM is to improve business and support additional enhancements by implementing new technologies available in market. CRM is just an enabler for many other e-commerce projects. It is the tool used to manage and control your business. It allows you to have better visibility overall with your customer as well as improving and streamlining processes within your organization. It is the base for building a business management model centered on 360*. This project can relate to project management software as both contain email integration, time tracking tools, organization of contacts and mobile integration feature. A CRM solution can improve your organizations relationship with customers, staff and clients throughout the company's operation lifecycle.

1.3 Assumptions and Dependencies

- Relationship Database – This application is directly dependent on a database which will be created to support all the functionalities of the CRM portal. This portal is created using MySQL.
- High speed Internet – This application is dependent on high speed internet because while updating if the connection is lost it can cause redundant data. It is important for customers because the quantity of product is limited at times and the CRM works on FCFS.
- Software Dependencies – The portal is created using Visual Studio and MySQL and it is important to use the enterprise version for additional features and added security.
- Hardware Dependencies – The portal requires hardware like servers and backup system for it to run non-stop so that customers can login at any time. The customers are recommended a minimal hardware requirement for running the application smoothly.

1.4 Future Enhancements

After the completion and acceptance of the beta version a chat messenger bot can be integrated to the portal home page to take care initial questions of website visitors. The home page of the site is to be made more interactive and an AI system would be set up to capture all the activity on the website. This data can help predict customer needs more accurately and can be beneficial for the companies.

Another enhancement is an instant chat portal which can be integrated to this CRM for better communication between the sales staff, sales manager and admin. This would help in better communication and better decisions.

1.5 Definitions and Acronyms

- DB – Database
- CRM – Customer Relationship Management
- DFD – Data Flow Diagram
- FCFS – First Come First Serve
- CSV – Common Separated Values
- PDF – Portable Document Format
- AI – Artificial Intelligence
- E.R. – Entity Relationship
- Admin – Administrator
- Info – Information
- Dr. – Doctor
- Prof. – Professor
- Cont. – Continued

2 Project Technical Description

First and foremost, to use this CRM portal we need to create a login for the customers, the sales staff and the managers. CRM portal has a varied line of functionalities for customers, sales managers, sales staff and administrator. A centralized relational database is created to support all the functionalities. Data consistency is paramount, so tables are created such that storing and retrieving of data is easier.

Customer logins dashboards the deals offered to them which they can choose to ignore or accept as per their convenience. They can also check their order history, keep a track of their current order and can create new enquiries in case of any questions. A sales person is allocated to them which will act like a first person contact for any further queries.

Sales staff login dashboards the inquiry by customers. The sales staff can also create additional customer in case of emergency requirement and by permission from the manager. They can also schedule meeting with customers and view the announcements made by the sales manager. The sales manager login shows the reports which can be used to track the progress till date and reflect the total revenue generated for a specific period.

Managers can create new products if required, view the meetings set up by the sales persons and propose deals as per the business strategies. They can also create announcements helpful for relaying information to everyone with a click. They can access the reports generated by the data of the CRM and can make better informed business decisions.

The search option is provided on each page to specifically search a string as per convenience along with the social media buttons. The social media like Facebook, Twitter, Google+ and LinkedIn have been integrated for added promotion and reaching out maximum people.

2.1 Application Architecture

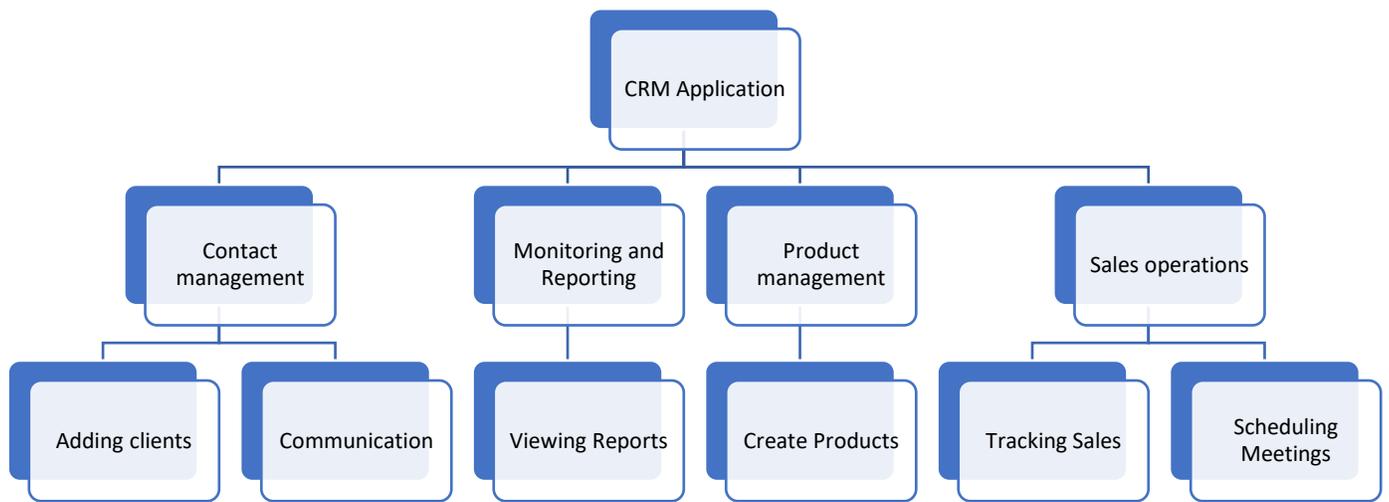


Figure 2.1

The application architecture shows how the CRM can be divided into contact management, reporting, product management and sales operations. Each of them cover the functionalities offered by the CRM portal.

2.2 Application Information flows

The use case diagrams and DFDs below explain how the customers, sales-staff, sales manager and admin use the CRM.

- Use Case for **Customer**:

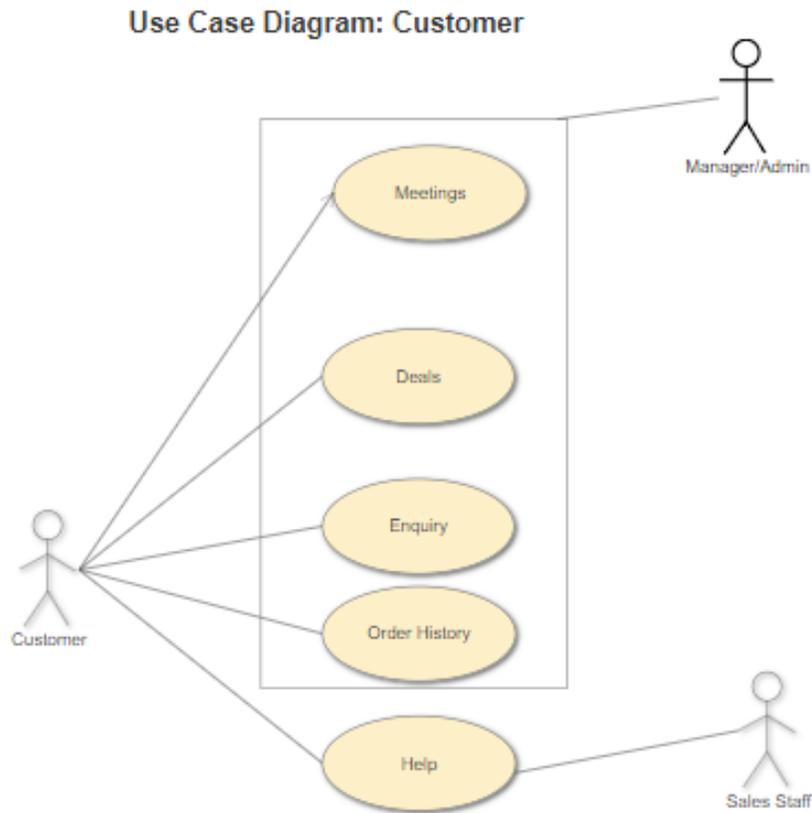


Figure 2.2.1

- Data Flow Diagram for **Customer**:

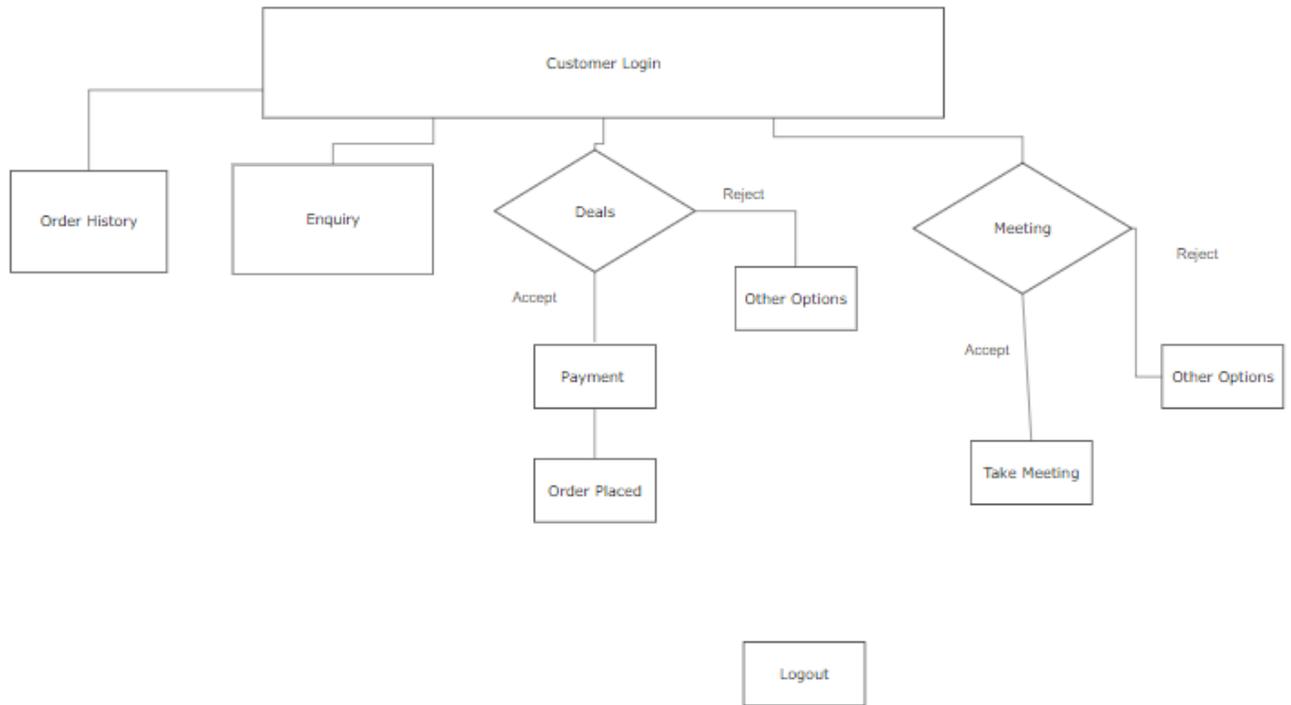


Figure 2.2.2

- Use case for Sales Staff:

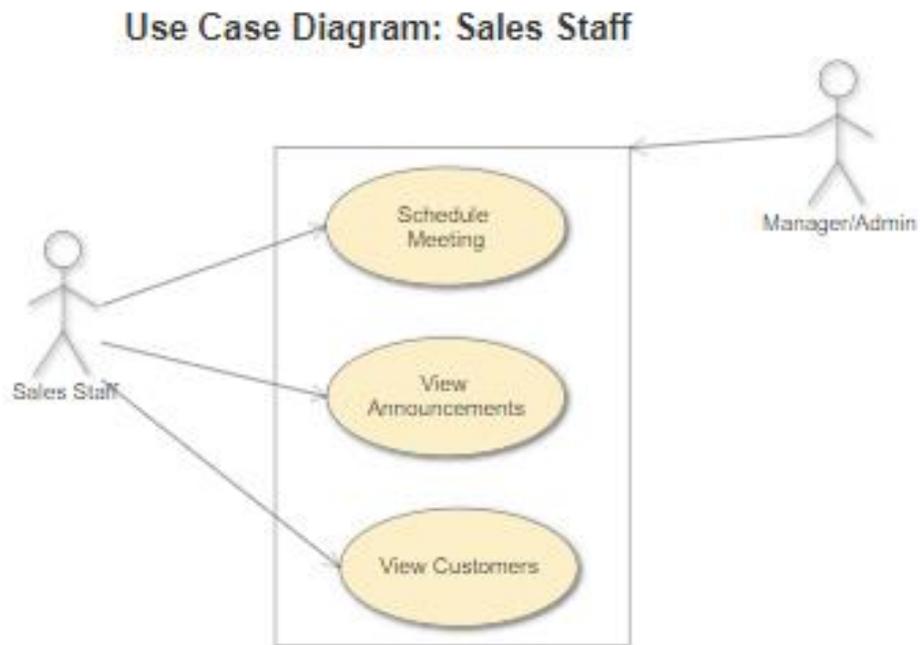


Figure 2.2.3

- Data Flow Diagram for Sales Staff:

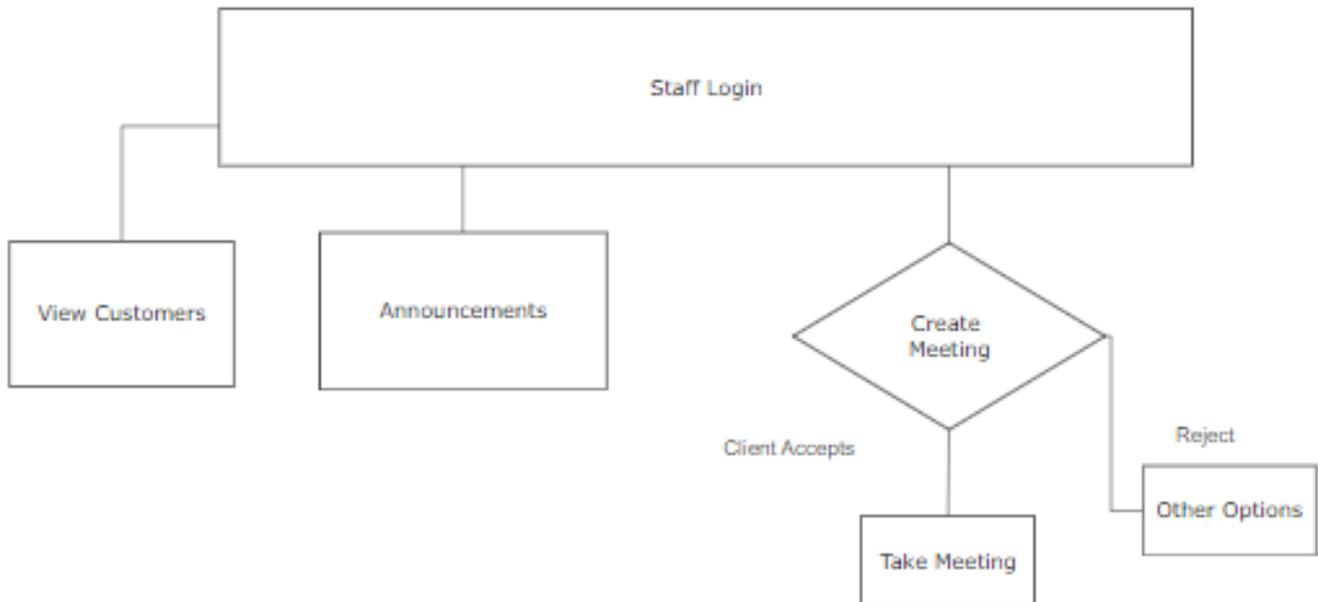


Figure 2.2.4

- Use Case Diagram for **Sales Manager**:

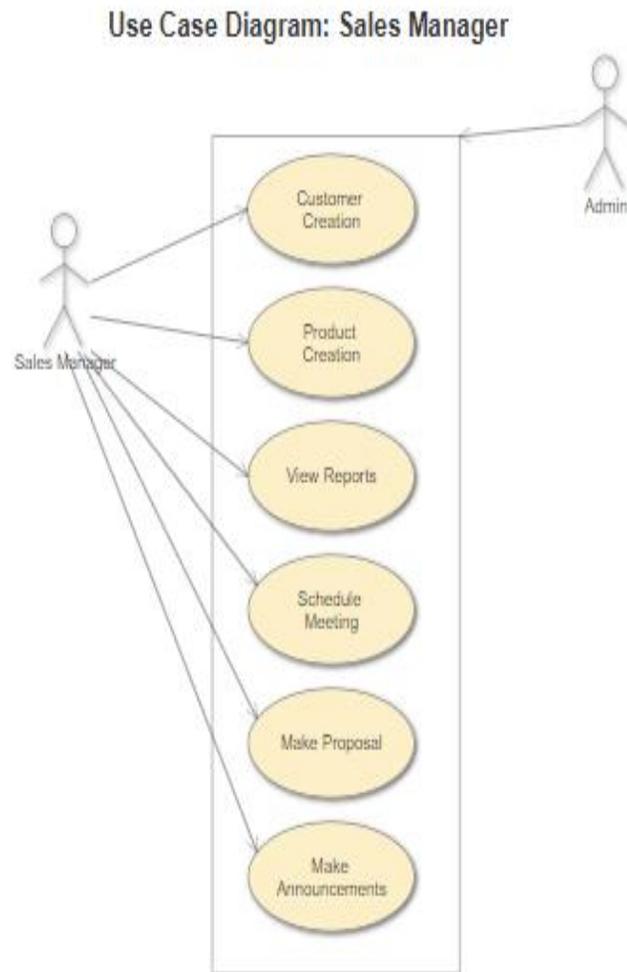


Figure 2.2.5

- Data Flow Diagram for Sales Manager:

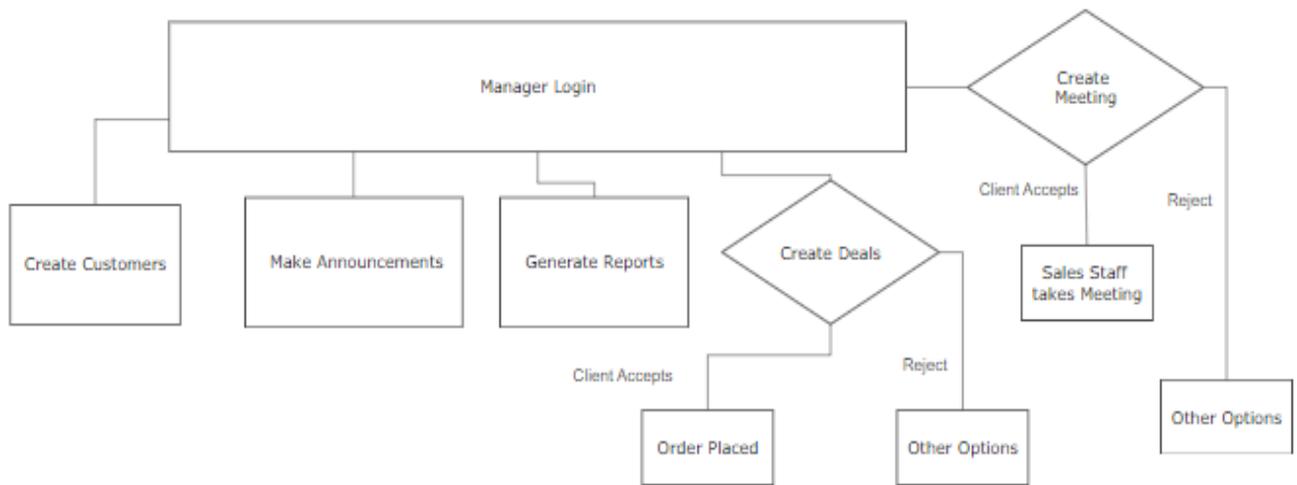


Figure 2.2.6

- Use Case for **Admin**:

Use Case Diagram: Admin

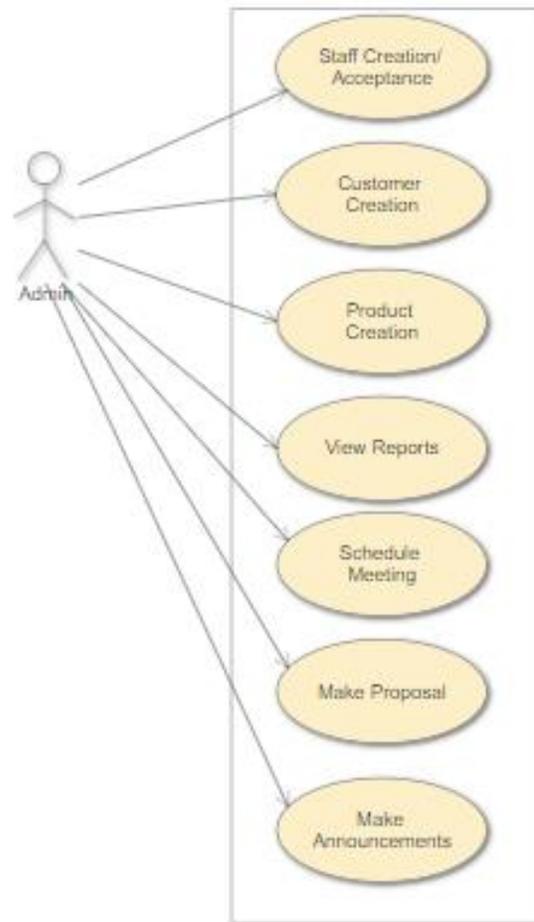


Figure 2.2.7

- Data Flow Diagram for **Admin**:

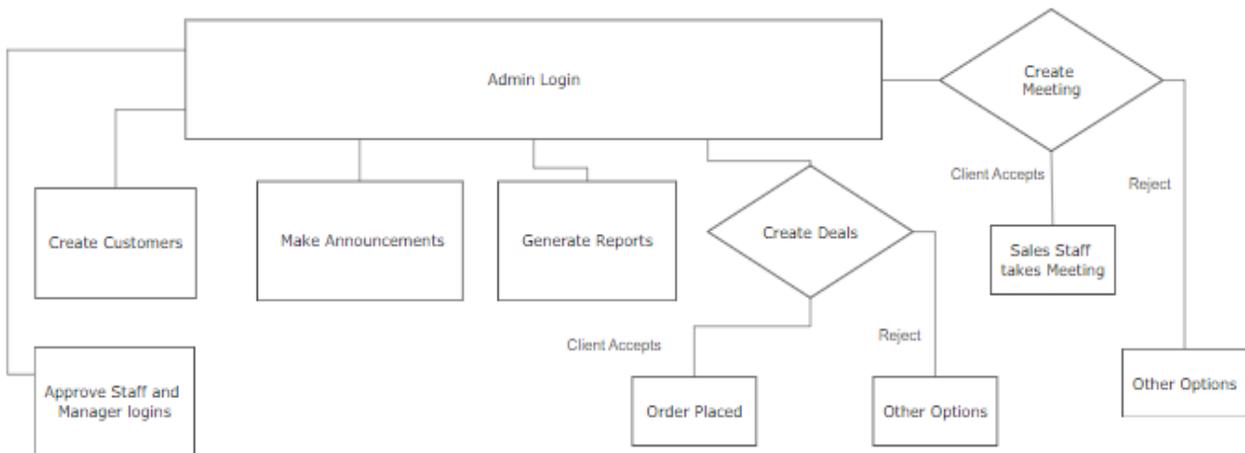


Figure 2.2.8

2.3 Interactions with other Projects (if Any)

Currently there are no interactions with other projects of CRM. However, our future scope includes the extension of this CRM to other projects like project management software.

2.4 Interactions with other Applications

The CRM portal is currently interacting with the following:

- The social media application Facebook, Google+, LinkedIn and Twitter for promotions and viewing deals.
- Microsoft Excel and Adobe PDF Reader for generating report in their respective formats.

2.5 Capabilities

This portal supports the following functionalities listed:

1. For Client:

- Client registration.
- Client log in.
- Search tools
- Enquiry
- View deals
- Payment of deals
- Order history

2. For Sales Staff:

- Staff log in.
- Entry of the sales information.
- Scheduling the visits or meetings.
- Communication.
- Updating the details.

3. For Manager:

- Manager login
- Product creation
- Reports
- Meetings
- Propose deals
- Make Announcements

4. For Admin:

- Customer creation
- Staff creation/acceptance
- Products creation
- Reports
- Meeting
- Make announcements
- View pending enquiries

All these functionalities are supported by a relational database in which we can add/update/delete the data as per the permissions to different users:

1. For Customer:

- Update their information
- Accept deals
- Make a Payment for product

2. For Sales Staff:

- Create/Update Meetings

3. For Sales Manager:

- Create/Update Announcements
- Create/Update Deals
- Create/Update Meetings
- Create/Update Products
- Create Reports
- Create/Update Customers

4. For Admin:

- Create/Accept Staff Registration
- Create/Update Announcements
- Create/Update Deals
- Create/Update Meetings
- Create/Update Products
- Create Reports
- Create/Update Customers

2.6 Risk Assessment and Management

We are managing the risk by estimating good scope of project and developing smart and realistic estimates. We have planned on how to approach the risk management by identifying risks and performing qualitative risk analysis. The Risk Register is as follows:

Risk Identification			Risk Rating				Risk Response		
Risk Name	Risk Version	Risk Category	Probability	Impact Factor	Risk Score	Risk Ranking	Response Activity	Trigger	Risk Owner
Scope creep (CRM)	v0	TEAM	6	9	54	1	refer to initial plan, update stakeholder, discuss changes, meetings	Too much deviation from the baselines	Bhavya
Human factor	v0	TEAM	7	7	49	2	Team building events, open communication, team lunch	Problem amongst team members	Bhavya
Inaccurate time management	v0	TEAM	5	9	45	3	team meeting, review meetings, better communication	Unable to meet a deadline	Nazish
Security Breaches	v0	TEAM	4	8	32	4	Implement security standards, Increased physical security, Social engineering awareness	Unauthorized attempt to the system	Nazish
CRM Quality Issues	v0	TEAM	5	6	30	5	Quality Assurance reports weekly	Quality assurance report unsatisfactory	Masood
Time/resource commitment	v0	TEAM	5	5	25	6	refer to initial plan	Too much deviation from timeline	Masood
Unavoidable risks	v0	TEAM	2	9	18	9	Be aware of the surroundings, government policies	Drastic changes in surroundings	Safora
Gold Plating	v0	TEAM	2	5	10	11	better communication, team meetings, refer to the updated plan	Overachieving plans of an employee or team	Safora
Productivity Issues	v0	TEAM	1	8	8	12	human resource management, team meetings, better communication	delay in deliverables	Bhavya
Database Storage Issue	v0	TEAM	2	2	4	13	Better communication, dedicated team for storage management, weekly status report	Team report	Nazish

TABLE 2.6.1 Risk Register

- Probability[P] - Scale - 1 - 10
- Impact Factor[IF] – Scale - 1 – 10
- Risk Score – “P x IF” – Scale – 1 - 100
- Risk Rank is calculated with descending order of Risk Score
- In case of risk occurrence risk version increases linearly like v1, v2, v3 and so on.

Since the Risk Version is v0 it depicts that the portal was completed by team with no major risk occurrence.

3 Project Requirements

3.1 Identification of Requirements

AUTOMATION OF OPERATIONS

<CRM_PROJ_04/2018-19 AUTOMATED OPERATIONS-001>

This feature allows user to eliminate inefficiency, reduce errors, maximizing staff usage and lower costs.

Implementation: Mandatory

EFFECTIVE COMMUNICATION.

<CRM_PROJ_04/2018-19 EFFECTIVE COMMUNICATION-002>

This feature allows user to communicate with other for example customers, staff, manager, etc. There are several options like email, mobile phone and social media services.

Implementation: Mandatory

REPORT CREATION.

<CRM_PROJ_04/2018-19 REPORT CREATION-003>

This feature allows user to create reports of sales, update report, delete report and share report with high-level management.

Implementation: Mandatory

USER FRIENDLY INTERFACE.

<CRM_PROJ_04/2018-19 USER FRIENDLY INTERFACE-004>

This feature allows user to navigate through portal easily, its user, find interested items, one-click inquiries.

Implementation: Mandatory

MOBILE COMPATIBLE.

<CRM_PROJ_04/2018-19 MOBILE COMPATIBILITY-005>

This feature allows user to use This product on their Mobile devices, tablets and palmtops.it can support platforms such as android and iOS.

Implementation: Optional, could be useful if implemented.

SPECIAL COMMENT.

<CRM_PROJ_04/2018-19 SPECIAL COMMENT-006>

This feature allows user to do any special query, comment and issue. Manager, customer as well as staff could use this feature.

Implementation: Mandatory

SEARCH FUNCTION.

<CRM_PROJ_04/2018-19 SEARCH FUCTION-007>

This feature allows user to search any information about any person, entity or item. This search bar is a graphical control element to efficiently manage data across the product.

Implementation: Mandatory

DATABASE.

<CRM_PROJ_04/2018-19 DATABASE-008>

The DATABASE is the heart of this project, it stores the information of product, item. login ids, managers, salespersons user can access the data anytime of any item without any hassle.

Implementation: Mandatory

SALESPERSON LOGIN.

<CRM_PROJ_04/2018-19 SALESPERSON LOGIN-009>

This feature allows user to create registration of salesperson which can access his/her account with a secured login ID and password through which they can control their sales.

Implementation: Mandatory

SALES MANAGER LOGIN

<CRM_PROJ_04/2018-19 SALESMANAGER LOGIN-010>

This feature allows user to create registration of sales Manager which can access his/her account with a secured login ID and password through which they can make any announcements, contact staff and customer and can create sales reports.

Implementation: Mandatory

CUSTOMER LOGIN.

<CRM_PROJ_04/2018-19 CUSTOMER LOGIN-011>

This feature allows user to create registration of Customer which can access his/her account with a secured login ID and password through which they can view any deals available, order item and contact salesperson for any special customized order.

Implementation: Mandatory

3.2 Operations, Administration, Maintenance and Provisioning (OAM&P)

A support team would be maintaining the CRM portal by addressing any issues faced by its users. The same support team will be responsible for keeping the portal running 24 hours with scheduled backup on weekly basis from 2 am to 5 am on Sundays.

3.3 Security and Fraud Prevention

CRM portal does not allow anyone to use it before creating an account. Users of the application are validated and then entered into the portal. Sales staff and the users will have different dash boards to perform their operations. Customers can register directly but will have minimal rights which is secured. We have an extra layer of security where the admin allows the staff and managers to register who have more rights and access to sensitive information.

In the next phase, we will be implementing techniques through which fraud pattern changes, perform multi variable analytics, detect problems using strong data profiling, study fraud indirectly relating to the product, derived from the current transaction attributes as well as cardholder's historical activities. Over time, we would like to build models using algorithms and machine learning to provide more predictive capabilities that can identify and prevent fraud.

Our intent is to make as many systematic decisions as possible to lower overall overhead costs and ensure full customer experience and continuous cyber security provision.

3.4 Release and Transition Plan

S. No.	Phase	No. of Days	Start Date	End Date	Tasks to Complete	Status
1	Requirements gathering and installing the required tools	23	1/22/2018	2/12/2018	Framing of Requirements. Identifying the tools and technologies.	Completed
2	Designing	25	2/13/2018	3/10/18	Representing the application by using the tools.	Completed
3	Coding	25	3/11/18	4/6/18	Implementing all the requirements	Completed
4	Testing	8	4/7/18	4/15/18	Testing whether the requirements are met.	Completed
5	Documentation	15	4/16/18	4/30/18	To refer the implementations.	Completed
6	Project Releasing	3	4/25/18	5/2/18	Installing and checking in different environments	Completed

Following is our updated release and transition plan:

4 Project Design Description

This is the first page of the CRM PORTAL where the customer and the staff can register. The social media integration is present on each page so that the customer can click of any of the icons which will navigate to the Associated social media page which shows ongoing deals and details about the project.



Figure 4.1

5 Project Internal/external Interface Impacts and Specification

The following are the internal interface of the CRM PORTAL

Customer Registration:

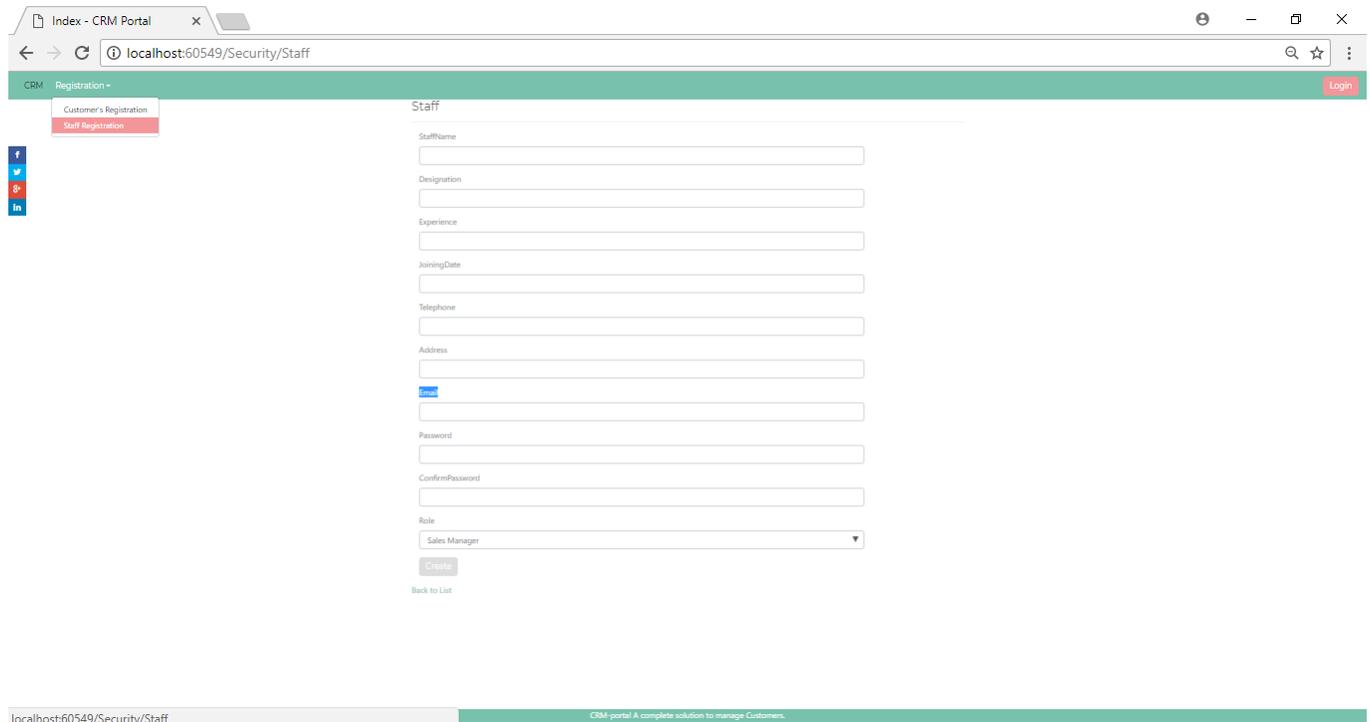
Here the customer can register using his details and can have a minimal view of the deals that are being offered to him and the meetings which are offered. Customer can create a login ID without any prior contact because this page offers minimum information and it can be used by sales team to contact the new customer.

The screenshot shows a web browser window with the URL `localhost:60549/Security/Customers/Create`. The page title is "Create - CRM Portal". The main content area is titled "Customer" and contains a registration form with the following fields: CustomerName, Gender, Phone, Address, Country, City, Email, Password, and ConfirmPassword. There is a "Create" button at the bottom of the form and a "Back to List" link below it. On the left side, there are navigation tabs for "Customer's Registration" (selected) and "Staff Registration". A sidebar on the left contains social media icons for Facebook, Twitter, and LinkedIn. A "Login" button is visible in the top right corner of the page. The footer of the page contains the URL `localhost:60549/Security/Customers/Create` and the text "CRM - portal A complete solution to manage Customers."

Figure 4.2

Staff Registration:

Staff can register directly to this portal but without the admin's acceptance they cannot login. This is an added security feature this portal has.



The screenshot shows a web browser window with the URL `localhost:60549/Security/Staff`. The page title is "CRM Registration -" and there is a "Login" button in the top right corner. A navigation menu on the left includes "Customer's Registration" and "Staff Registration". The main content area is titled "Staff" and contains a registration form with the following fields:

- StaffName
- Designation
- Experience
- JoiningDate
- Telephone
- Address
- Email
- Password
- ConfirmPassword
- Role (dropdown menu with "Sales Manager" selected)

At the bottom of the form, there is a "Create" button and a "Back to List" link. The footer of the page contains the text "localhost:60549/Security/Staff" and "CRM-portal A complete solution to manage Customers."

Figure 4.3

Login Page:

We have 4 different types of login- Customer, Sales Staff, Sales Manager and Admin.

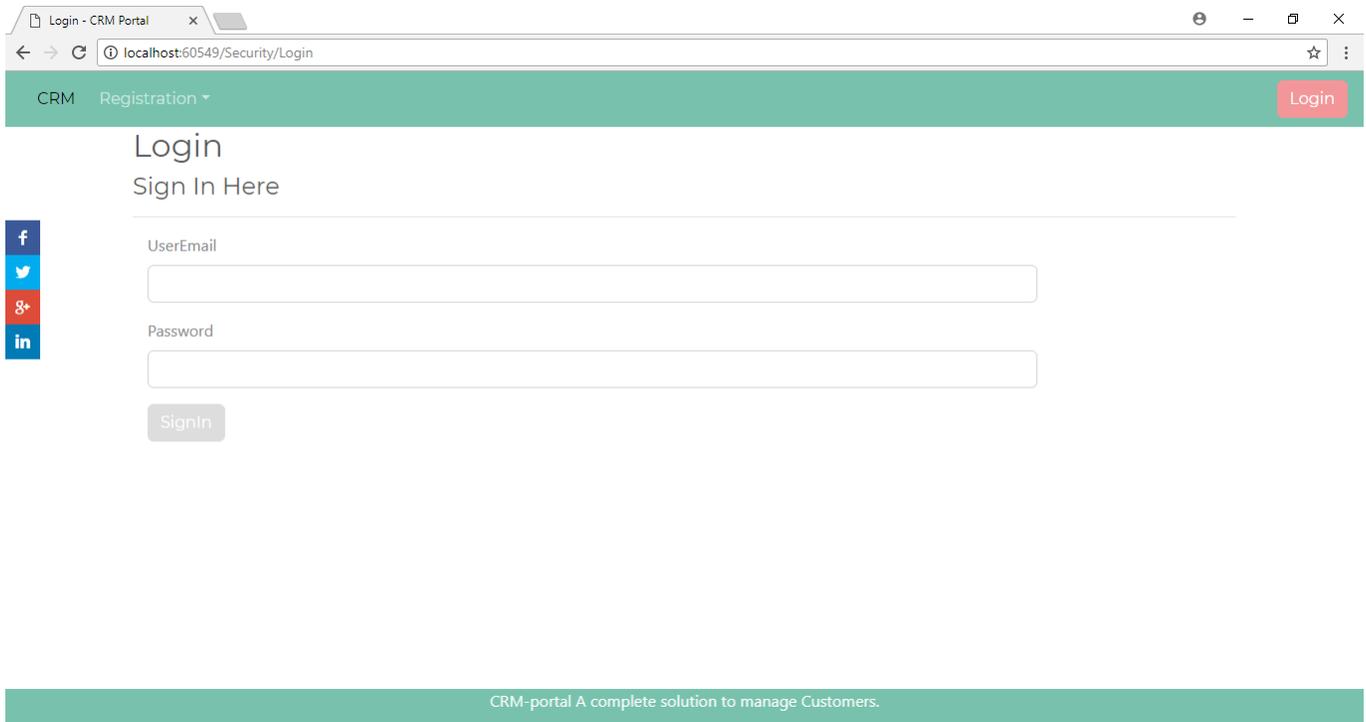


Figure 5.1 Login Screen

Customer Login: When the customer logs in he is shown a dashboard of the deals offered to him which he can choose to accept or reject.

View Deals: Here the customer is shown the proposal name, the date the proposal is added and the maximum time the customer has to respond to the deal. Using the blue icon, the customer can view the quantity of the items, the contact staff person and additional information including price of the product. The Accept button is also here.

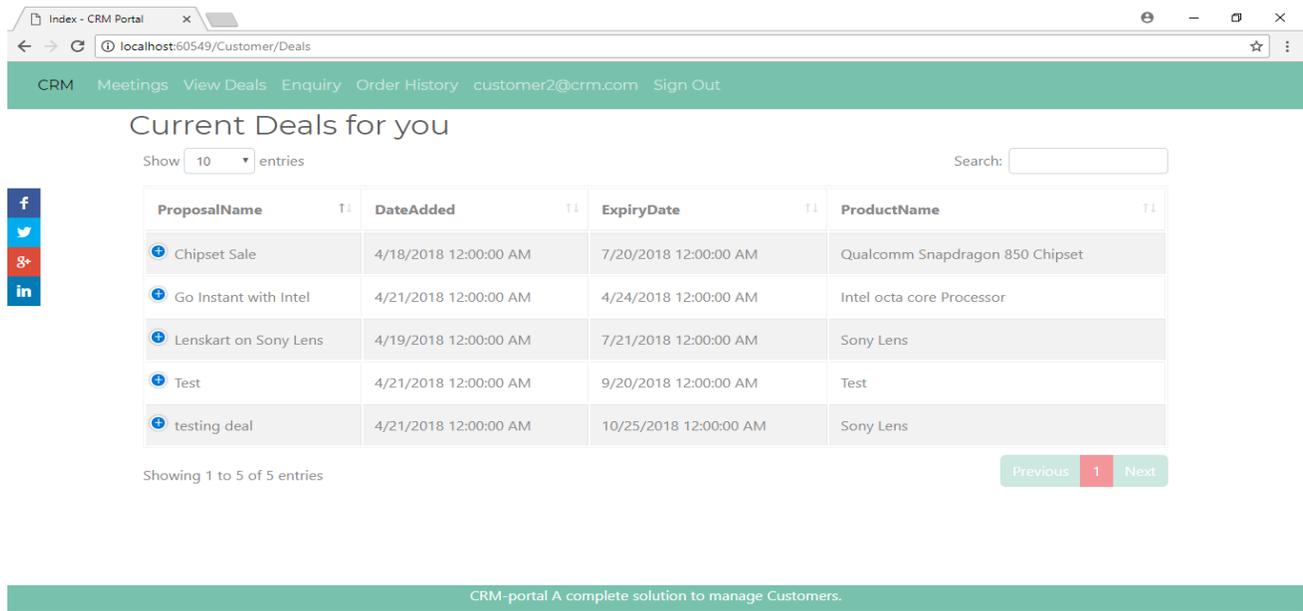


Figure 5.2

Processing: Once the deal is accepted the customer is taken to the processing page where they can select the quantity of the item and proceed to the checkout.

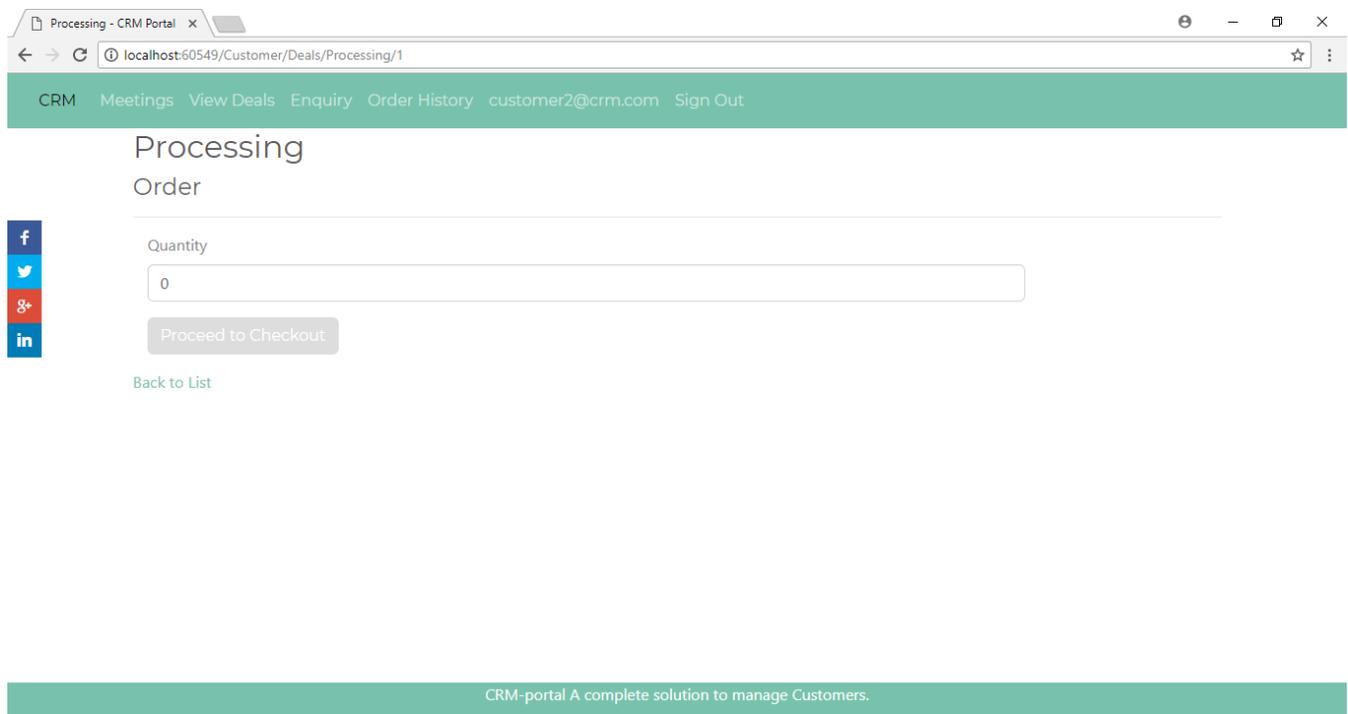


Figure 5.3

Payment Page: Here the amount is calculated according the quantity and the price of item selected and the customer has to make a payment using a credit card/debit card.

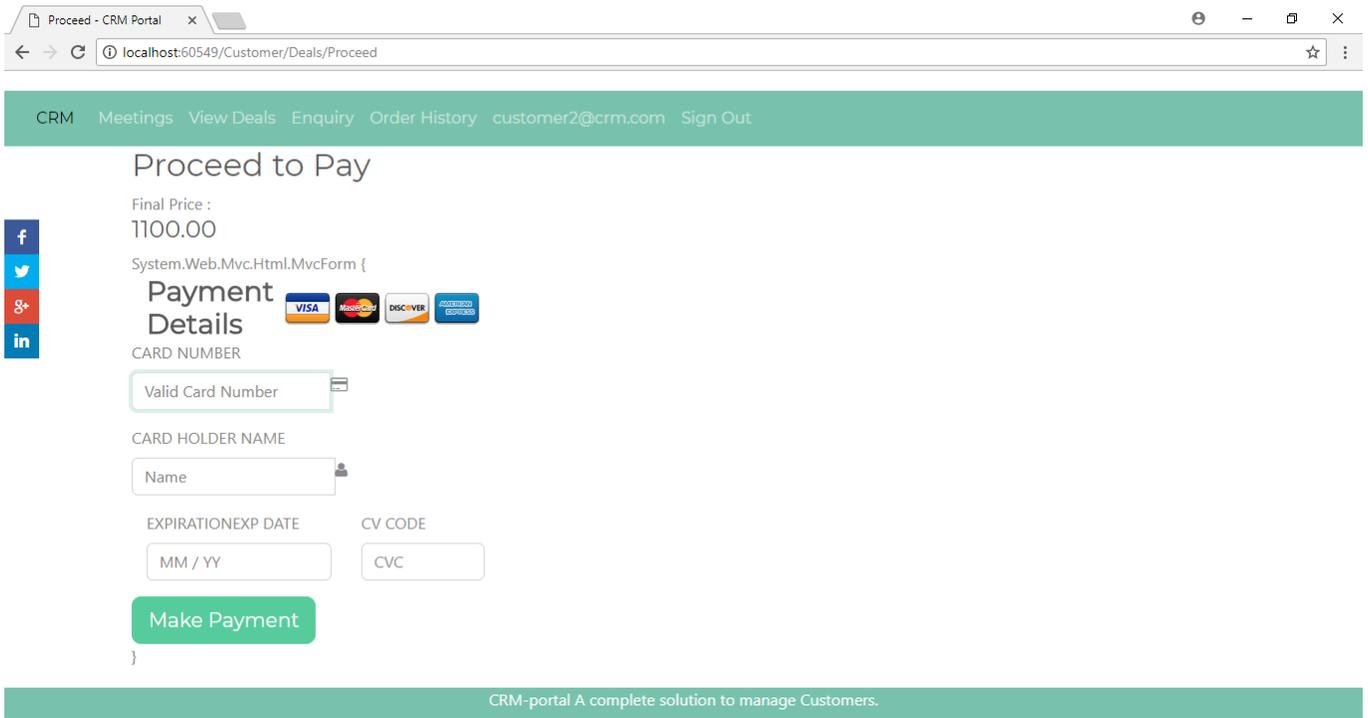


Figure 5.4

Order placed: Once the order has been placed the page will show confirmation and the shipping time.

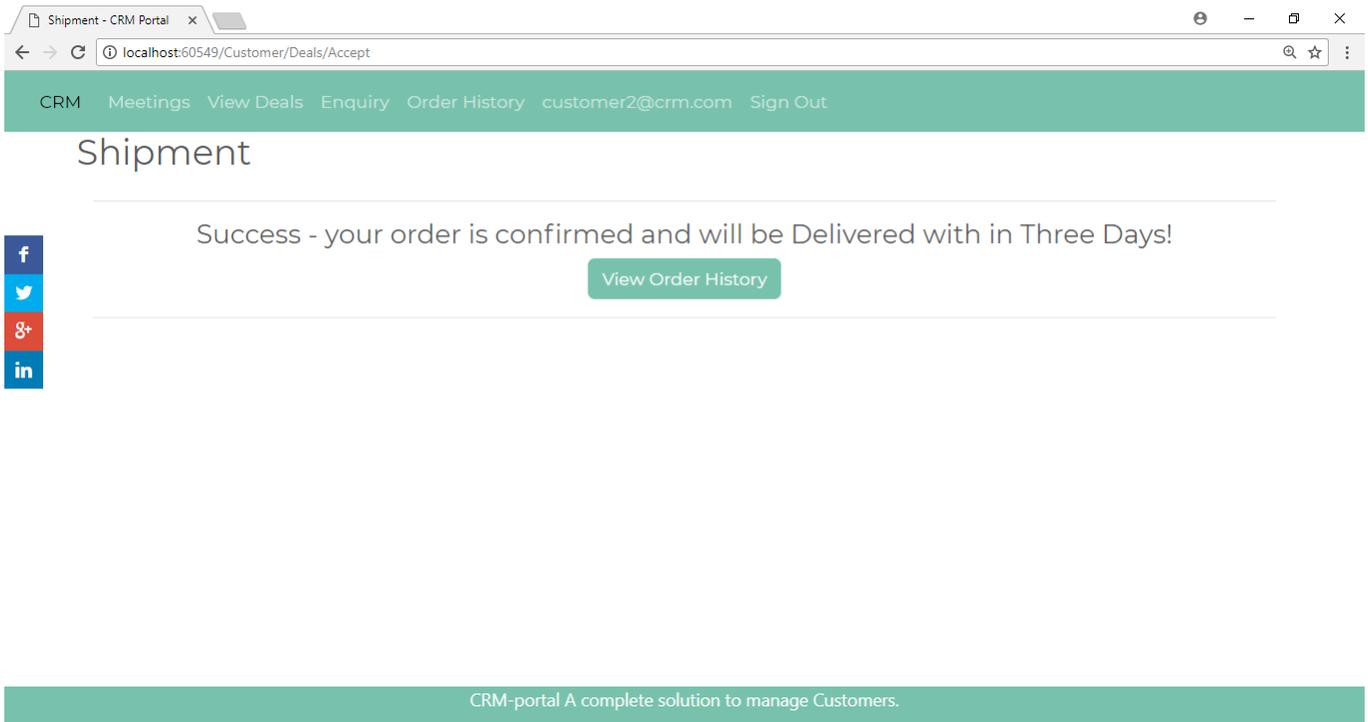


Figure 5.5

Order History: Customer can view the order history of all the products he bought using the CRM.

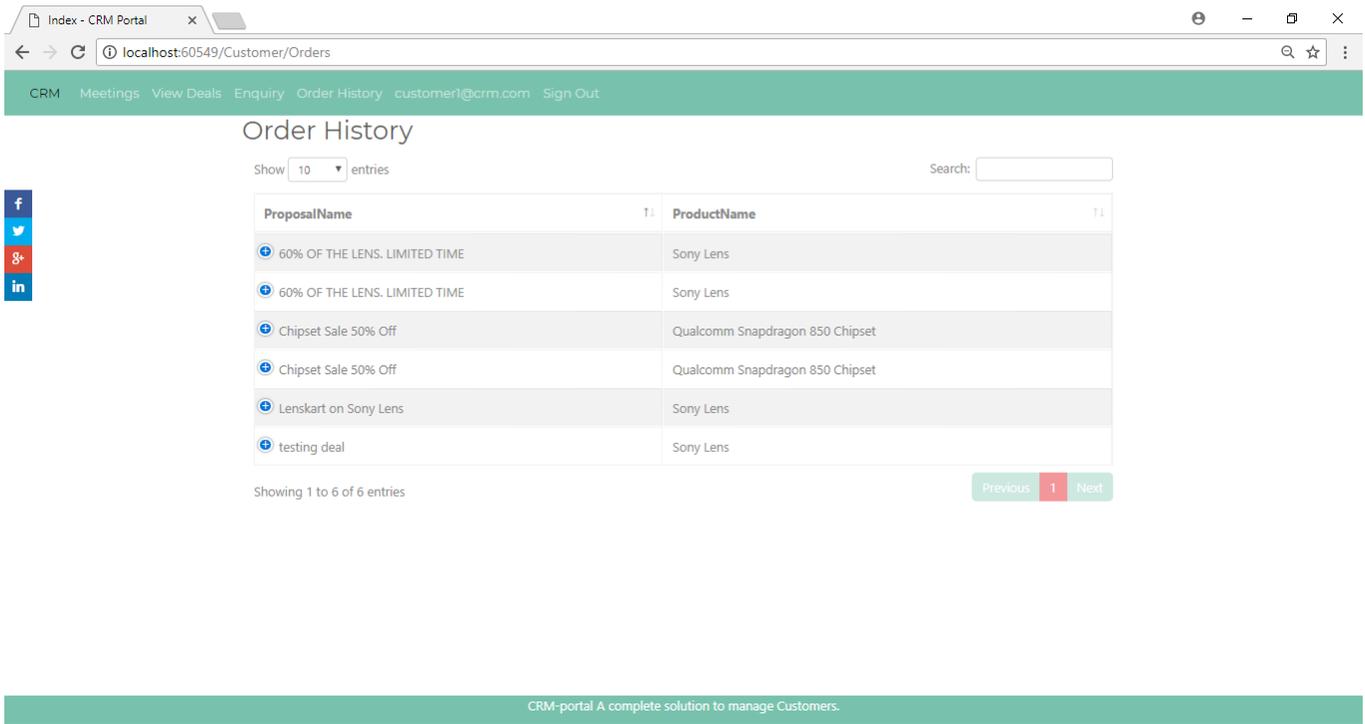


Figure 5.6

Enquiry: Here the customer can make a new enquiry whenever he logs in and manager can respond to this by appointing a sales person.

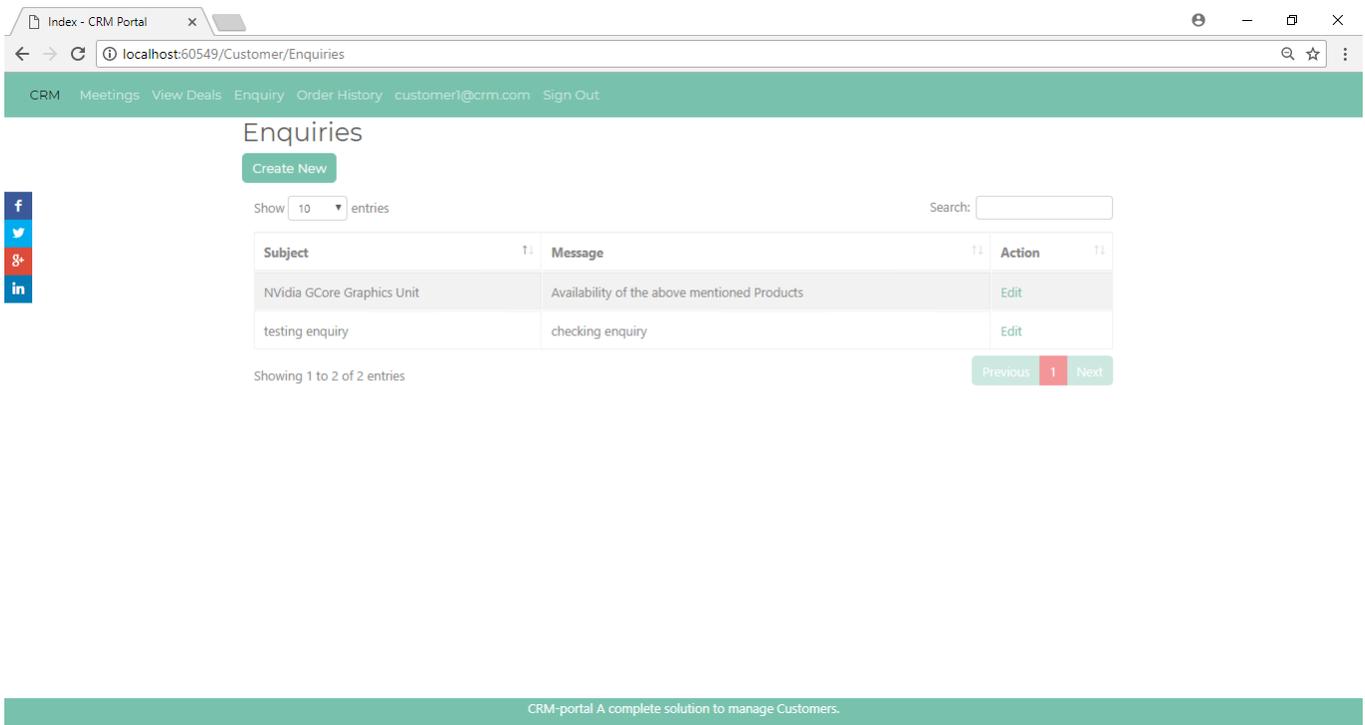


Figure 5.7

View Meeting: Customer can view the upcoming meeting with the staff appointed to them and can choose to accept or reject it.

Index - CRM Portal x
localhost:60549/Customer/Meetings

CRM Meetings View Deals Enquiry Order History customer2@crm.com Sign Out

Meetings

Show 10 entries Search:

MeetingDate	Time	Place	StaffName	ProposalName	Action / Status
4/22/2018 12:00:00 AM	10:00	The Platinum Business Hotel	James	Chipset Sale	Accept
4/23/2018 12:00:00 AM	1:20	Park Continential Hotel	James	Lenskart on Sony Lens	Accept
4/24/2018 12:00:00 AM	11:00	Starbucks	John	Lenskart on Sony Lens	Accept

Showing 1 to 3 of 3 entries

Previous 1 Next

CRM-portal A complete solution to manage Customers.

Figure 5.8

Sales Staff: The staff logins dashboard shows the announcements made by the manager/admin.

Index - CRM Portal x
localhost:60549/AdminSalesManagerSalesStaff/Announcements

CRM Customers Schedule a Meeting Announcements salesperson2@crm.com Sign Out

Announcements

Show 10 entries Search:

Announcement1	Date
testing announcement	1/1/2018 12:00:00 AM
The Testing Announcement First Review	4/22/2018 12:00:00 AM

Showing 1 to 2 of 2 entries

Previous 1 Next

CRM-portal A complete solution to manage Customers.

Figure 5.9

View Customer: The staff can view the total customers and their contact info for prospect clients.

CRM Customers Schedule a Meeting Announcements salesperson2@crm.com Sign Out

Customers

Create New

Show 10 entries Search:

CustomerName	Gender	Phone	Address	Country	City	Email
Customer1	Male	9876543210	Chicago Street	USA	Chicago	customer1@crm.com
Customer2	Male	9876987610	Washington	USA	Washington	customer2@crm.com
Customer3	Female	+657589559	San Francisco	USA	San Francisco	customer3@crm.com
Customer6	Male	+445451645	Durban	RSA	Durban	customer6@crm.com
Customer7	Female	+288241551	Cape Town	RSA	Cape Town	customer7@crm.com

Showing 1 to 5 of 5 entries

Previous 1 Next

CRM-portal A complete solution to manage Customers.

Figure 5.10

Schedule a Meeting: Sales staff can schedule a meeting with the client as per the orders by the manager/admin. In case the sales person cannot make it to a meeting they can edit and choose a new date with the customers and managers approval.

CRM Customers Schedule a Meeting Announcements salesperson2@crm.com Sign Out

Meetings

Create New

Show 10 entries Search:

MeetingDate	Time	Place	CustomerName	StaffName	ProposalName	Actions
4/22/2018 12:00:00 AM	10:00	The Platinum Business Hotel	Customer2	SalesManager1	Chipset Sale	Edit Delete
4/22/2018 12:00:00 AM	12:15	Minerva Coffee Shop	Customer1	Sales Manager2	Chipset Sale	Edit Delete
4/23/2018 12:00:00 AM	1:20	Park Continental Hotel	Customer2	SalesManager1	Lenskart on Sony Lens	Edit Delete
4/24/2018 12:00:00 AM	11:00	Starbucks	Customer2	John	Lenskart on Sony Lens	Edit Delete

Showing 1 to 4 of 4 entries

Previous 1 Next

CRM-portal A complete solution to manage Customers.

Figure 5.11

Sales Manager: The sales manager dashboard shows the reports which show all the sales made till date. They can order the reports by customer, staff and dates.

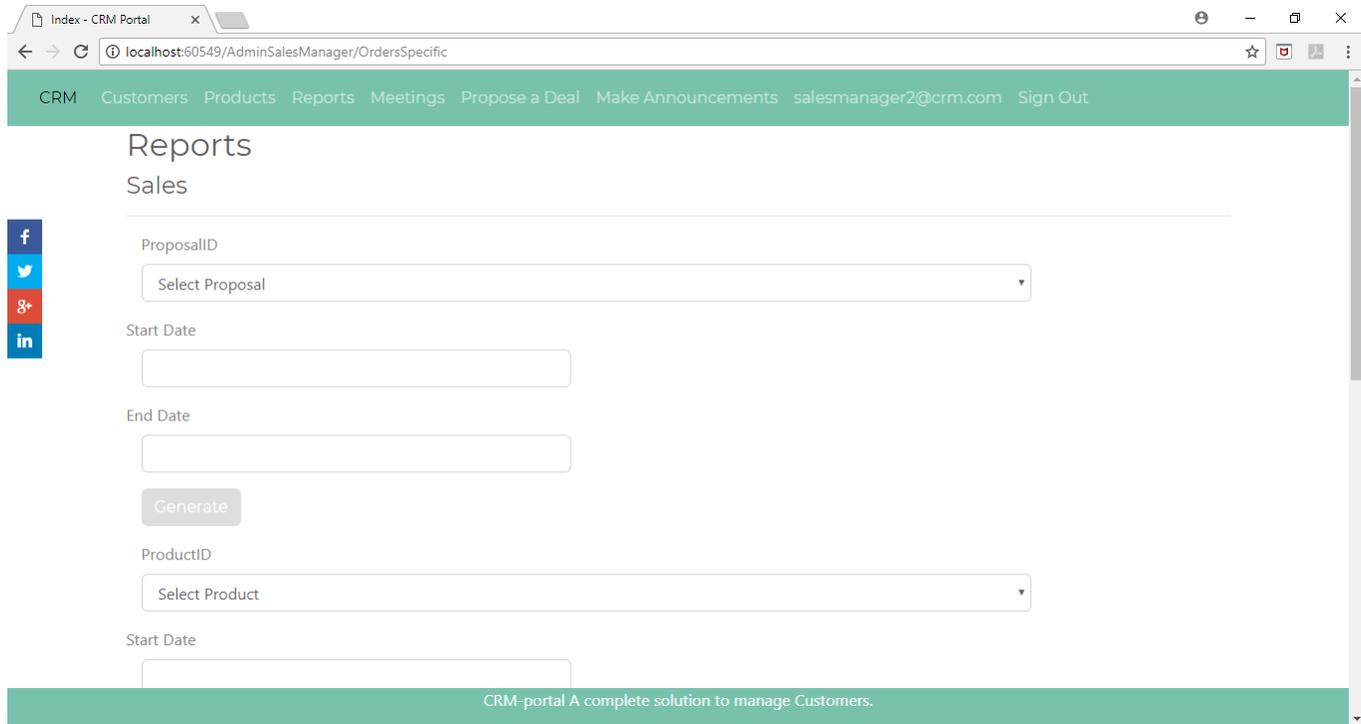


Figure 5.12

This is the dashboard of the manager(cont.) and it shows the reports which can be generated using the ProposalID and time duration.

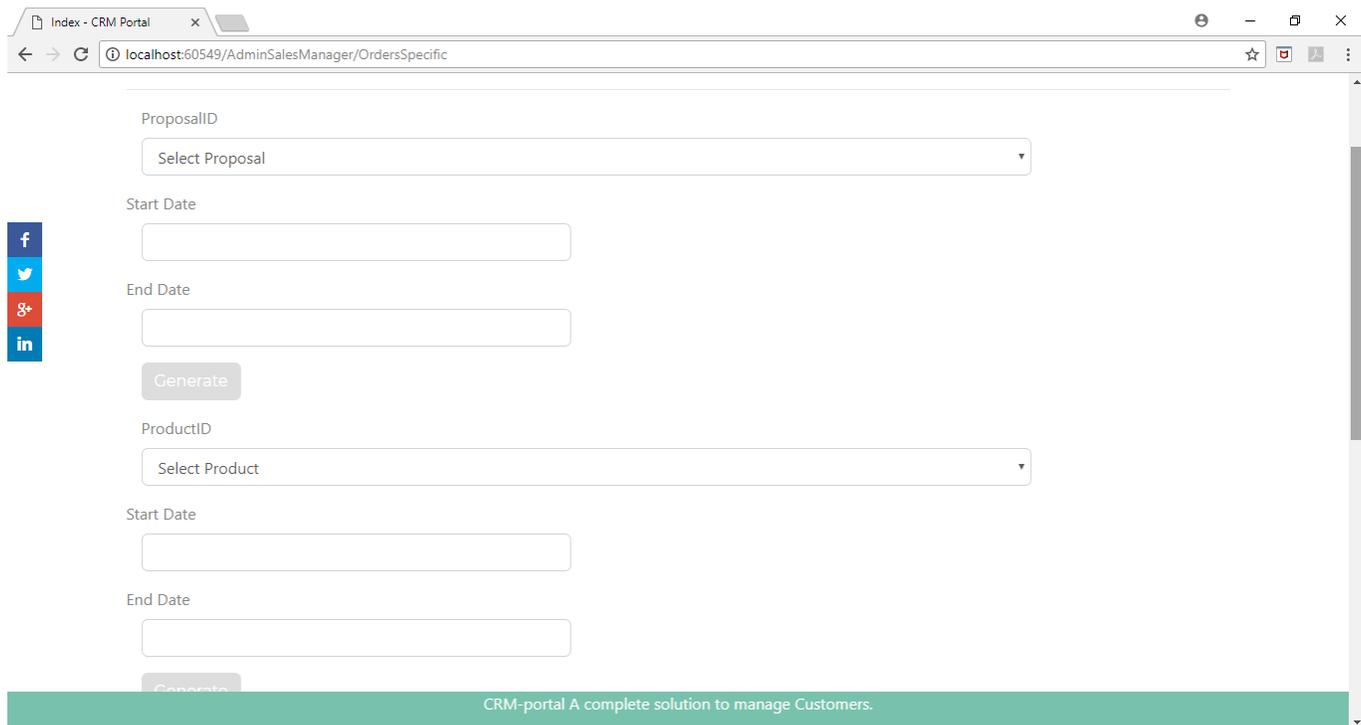


Figure 5.13

This is the dashboard of the manager(cont.) and it shows the reports which can be generated using the CustomerID, StaffID and time duration.

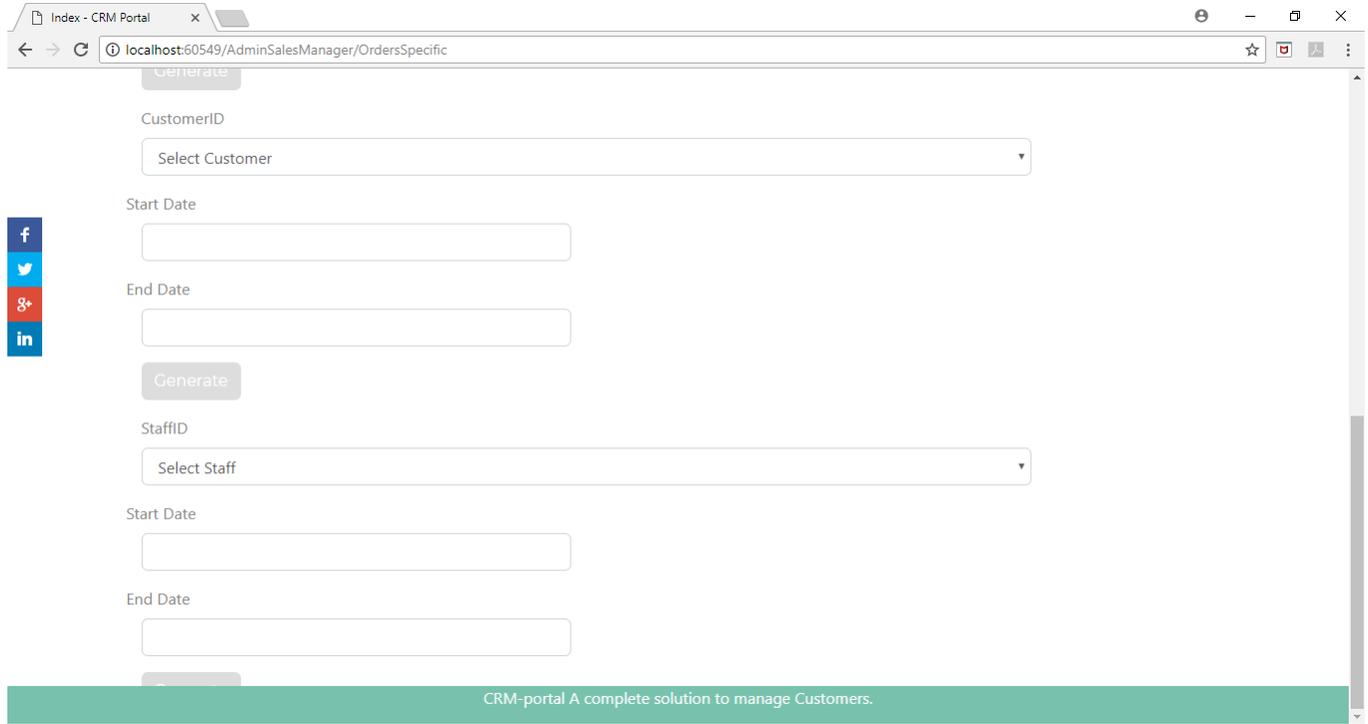


Figure 5.14

Creating a Customer: The manager can create a customer using the customer details and can also edit them in case of any change.

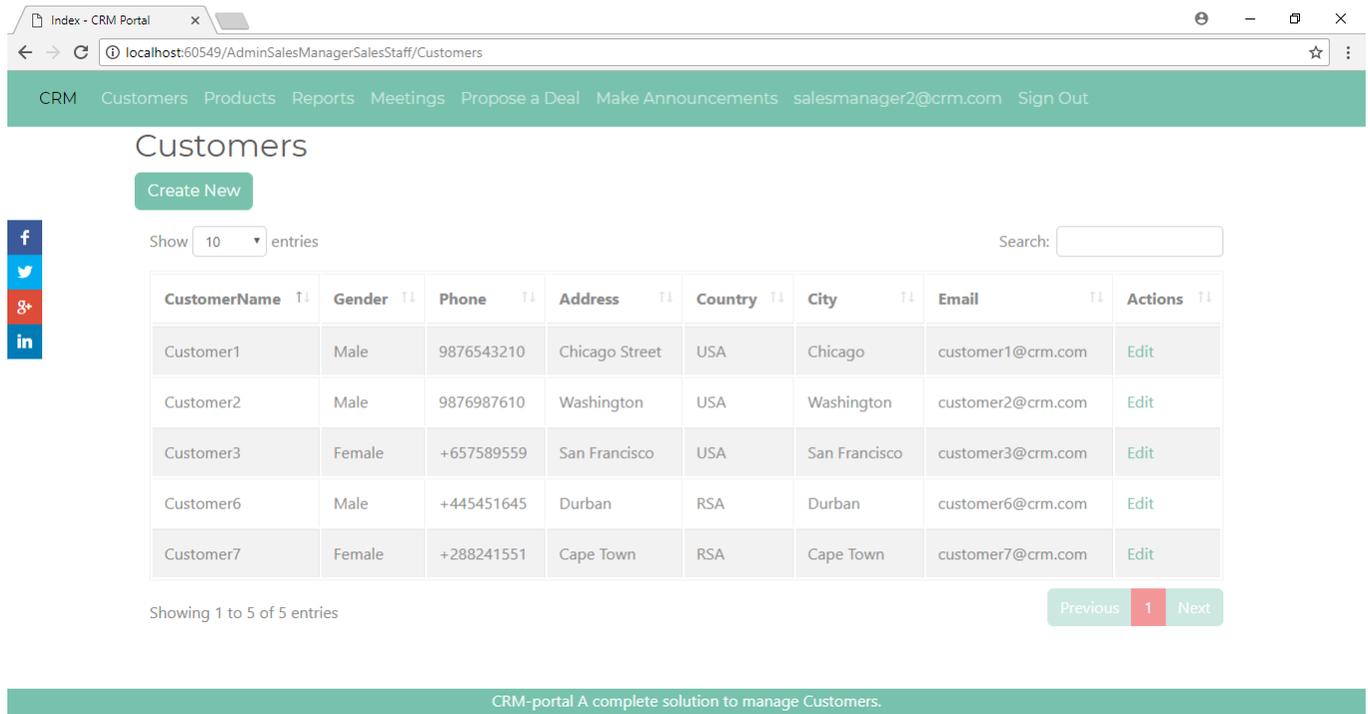
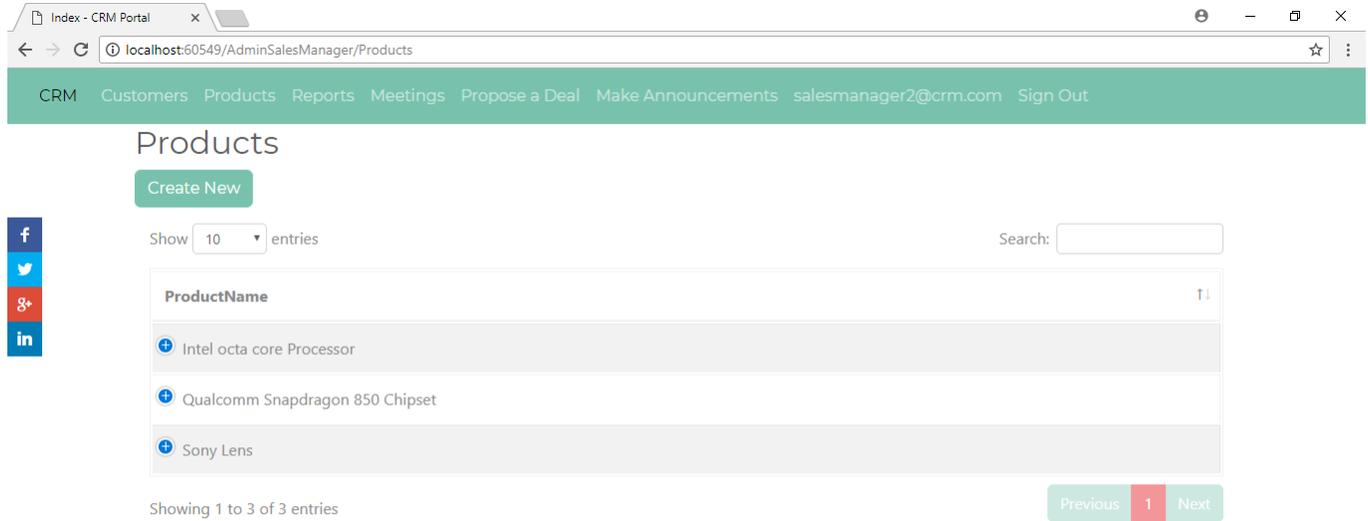


Figure 5.15

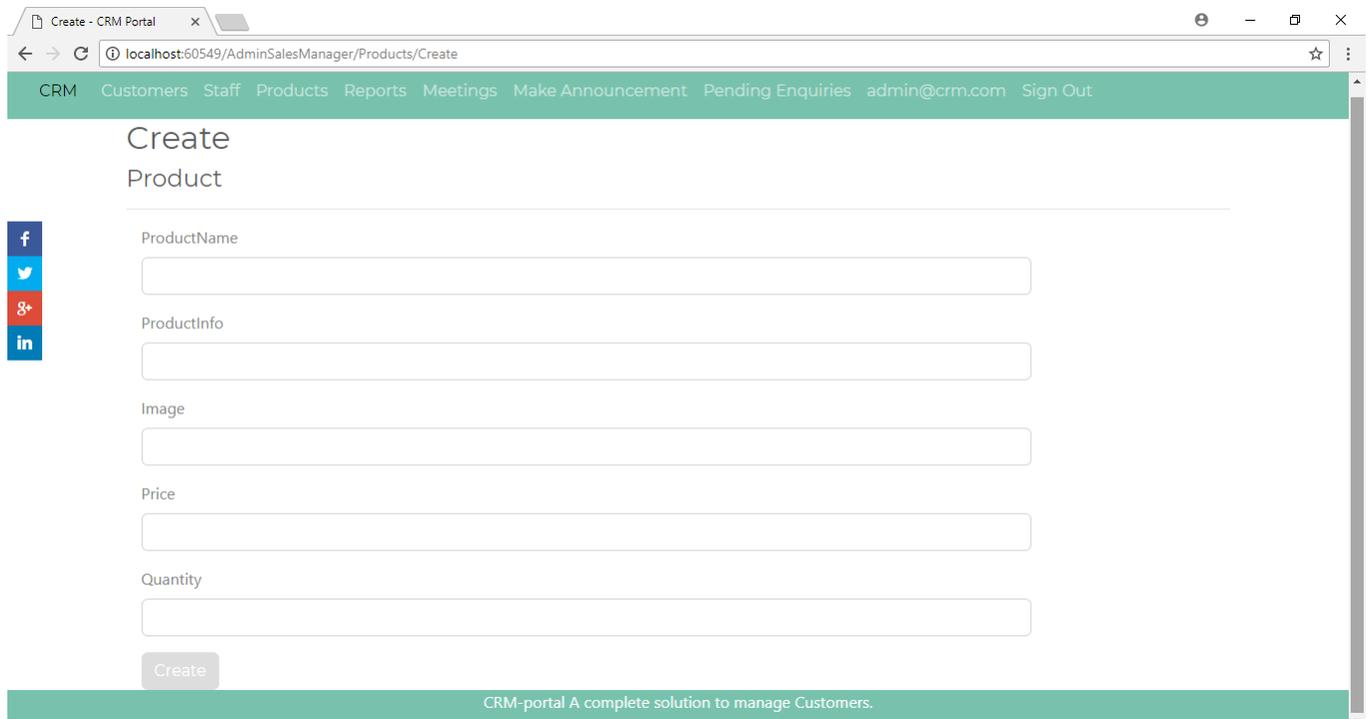
Creating Products: Manager is responsible to create new product and edit existing products in case there is a change in quantity, price, image, product info and name.



CRM-portal A complete solution to manage Customers.

Figure 5.16

Creating products: This is the page where the admin can create new products.



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Figure 5.17

Scheduling Meetings: Similar to sales staff, a manager can schedule a meeting with the customer or can appoint a sales staff to attend the meeting.

The screenshot shows the 'Meetings' page in the CRM Portal. The browser address bar indicates the URL is localhost:60549/AdminSalesManagerSalesStaff/Meetings. The navigation menu includes CRM, Customers, Products, Reports, Meetings, Propose a Deal, Make Announcements, salesmanager2@crm.com, and Sign Out. The page title is 'Meetings'. There is a search bar and a dropdown menu set to '10' entries. A table lists four meetings with columns for MeetingDate, Time, Place, CustomerName, StaffName, ProposalName, and Status. The status for all meetings is 'Pending'. A pagination bar at the bottom shows 'Showing 1 to 4 of 4 entries' and 'Previous 1 Next'.

MeetingDate	Time	Place	CustomerName	StaffName	ProposalName	Status
4/22/2018 12:00:00 AM	10:00	The Platinum Business Hotel	Customer2	James	Chipset Sale	Pending
4/22/2018 12:00:00 AM	12:15	Minerva Coffee Shop	Customer1	James	Chipset Sale	Pending
4/23/2018 12:00:00 AM	1:20	Park Continential Hotel	Customer2	James	Lenskart on Sony Lens	Pending
4/24/2018 12:00:00 AM	11:00	Starbucks	Customer2	John	Lenskart on Sony Lens	Pending

Figure 5.18

Proposing a Deal: The manager can create new deals which will be shown to the customers directly. Specific deals can be created for specific customers.

The screenshot shows the 'Proposal' page in the CRM Portal. The browser address bar indicates the URL is localhost:60549/SalesManager/Proposals. The navigation menu includes CRM, Customers, Products, Reports, Meetings, Propose a Deal, Make Announcements, salesmanager2@crm.com, and Sign Out. The page title is 'Proposal'. There is a 'Create New' button, a search bar, and a dropdown menu set to '10' entries. A table lists five proposals with columns for ProposalName, DateAdded, ExpiryDate, ProductName, StaffName, and an Edit link. The status for all proposals is 'Pending'. A pagination bar at the bottom shows 'Showing 1 to 5 of 5 entries' and 'Previous 1 Next'.

ProposalName	DateAdded	ExpiryDate	ProductName	StaffName	
Chipset Sale	4/18/2018 12:00:00 AM	7/20/2018 12:00:00 AM	Qualcomm Snapdragon 850 Chipset	James	Edit
Go Instant with Intel	4/21/2018 12:00:00 AM	4/24/2018 12:00:00 AM	Intel octa core Processor	Sales Manager2	Edit
Lenskart on Sony Lens	4/19/2018 12:00:00 AM	7/21/2018 12:00:00 AM	Sony Lens	James	Edit
Test	4/21/2018 12:00:00 AM	9/20/2018 12:00:00 AM	Test	Sales Manager2	Edit
testing deal	4/21/2018 12:00:00 AM	10/25/2018 12:00:00 AM	Sony Lens	Sales Manager2	Edit

Figure 5.19

This shows the creation of proposal.

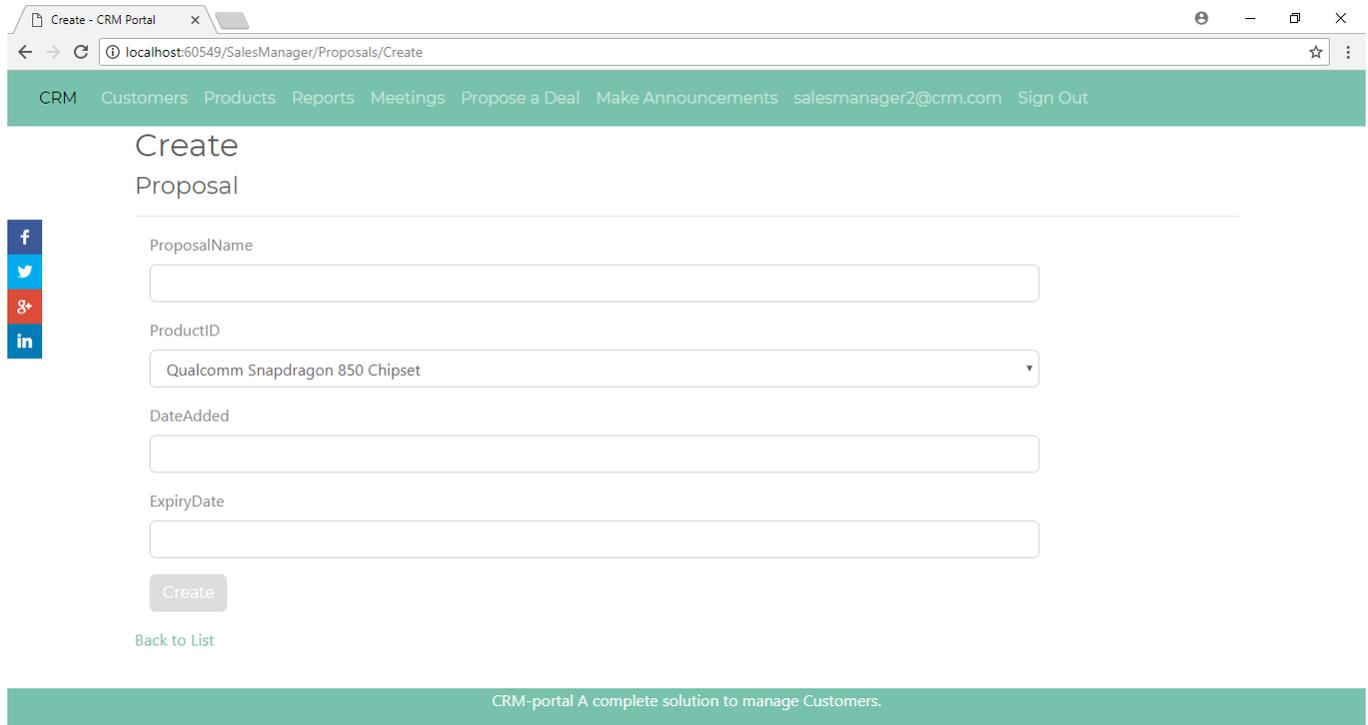


Figure 5.20

Make Announcements: The manager can create announcements which will be shown to all the other managers and sales staff.

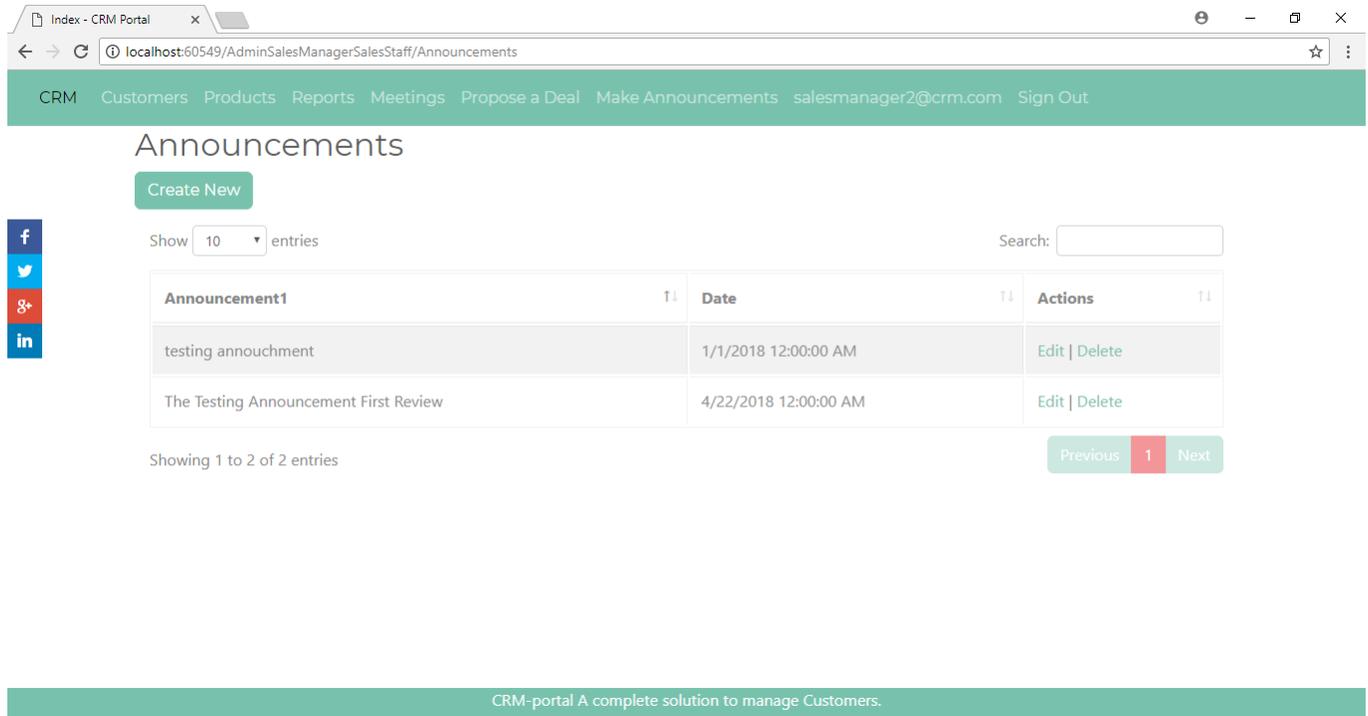


Figure 5.21

Administrator: Admin has all the functionalities as of the manager along with the functionality to create and accept new staff. This shows that the staff name “Receptionist” has been approved by the admin.

The screenshot shows a web browser window with the URL `localhost:60549/Admin/Staffs`. The page title is "Staff" and it features a navigation menu with items like CRM, Customers, Staff, Products, Reports, Meetings, Make Announcement, Pending Enquiries, admin@crm.com, and Sign Out. A sidebar on the left contains social media icons for Facebook, Twitter, Google+, and LinkedIn. The main content area includes a "Create New" button, a "Show 10 entries" dropdown, and a search box. Below these is a table of staff members with columns for StaffName, Designation, Experience, JoiningDate, Telephone, and Email. The first row, "Employee1" (Receptionist), is selected, and its details are displayed below the table, including the address "London" and a checked "IsApproved" checkbox. The "Action" menu for this entry includes "Edit" and "Delete".

StaffName	Designation	Experience	JoiningDate	Telephone	Email
Employee1	Receptionist	4 Yrs	4/21/2017 12:00:00 AM	+504542253	employee1@crm.com
James	Sales Manager	4 Yrs	4/19/2017 12:00:00 AM	+254632156	james@crm.com
John	Admin	23 Yrs	9/23/2010 12:00:00 AM	+657855256	admin@crm.com
Sales Manager2	Sales Manager	11 Yrs		+524545454	salesmanager2@crm.com
Sales Person 2	Sales	3 Yrs		+894848445	salesperson2@crm.com
SalesManager1	Sales Manager	13 Yrs		147852369	salesmanager1@crm.com

Figure 5.22

6 Design Units Impacts

The following is the complete database design which supports the CRM PORTAL:

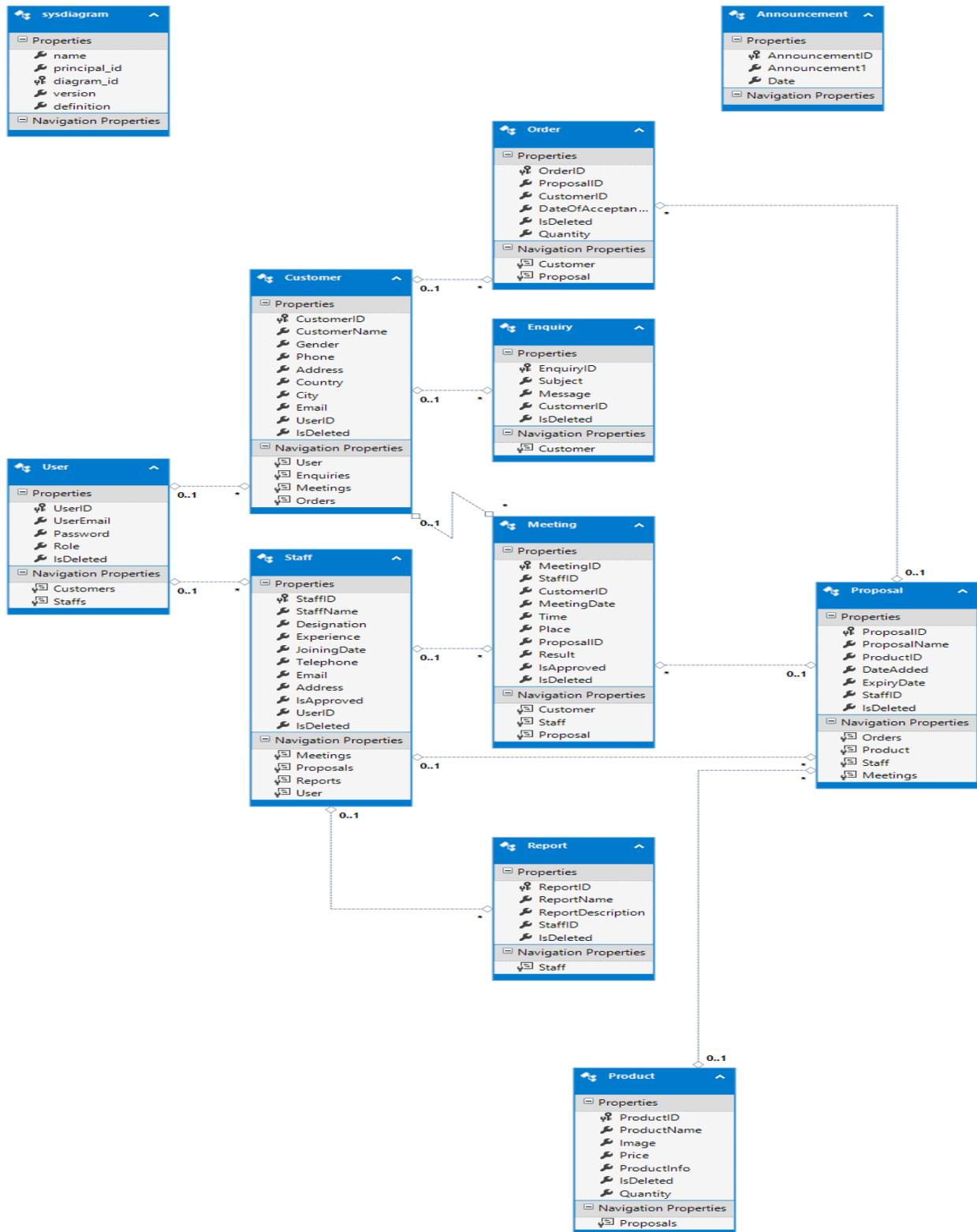


Figure 6.1- E.R. Diagram

6.1 Functional Area A/Design Unit A

6.1.1 Functional Overview

Administrator Module:

The administrator can perform operations like adding a customer, adding a staff, approving the already added staff, see the products, monitor the deals available for their customers and pull up reports.

Sales Manager Module:

The sales manager can also perform operations like adding a customer, add staff member which will be pending by administrator to approve. He/she can also see the pending meetings by its employees. The manager should also be able to pull up reports.

6.1.2 Impacts

System is running properly using both administrator and sales manager login.

6.2 Functional Area B/Design Unit B

6.2.1 Functional Overview

Sales Person Module:

The sales person module will have all the list of customers. He/she can schedule a meeting with his customer. He/she can also see his pending meetings and can also see the announcements made by their superiors.

Customer Module:

As soon as the customer logs in their account, he/she should see all the deals on the screen. When he clicks on accept deal, it will ask the customer to select the quantity of the item to be ordered. It will also show how many quantities are left. When the customer selects on the quantity of items to order, the screen will take them to payment page. Once the payment goes through, the customer will see an order confirmation page.

6.2.2 Impacts

System is running properly using both sales staff and customer login.

7 Open Issues

Currently, there are no issues related to our CRM portal but will be consider.

8 *Acknowledgements*

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10 Appendices

Not Required.