

**Federated Insurance
Customer Relation Management System**



IT-380

Gold Team

By: Nicholas , Erich, Salman, Jake, Kshitiz

Letter of Introduction

Gold Team
Minnesota State University, Mankato
Mankato, MN 56001

Date: 02/13/2018

Brian Carlson and Nick Wilson
Federated Mutual Insurance Company
PO Box 328
121 E Park Square
Owatonna, MN 55060-0328

Dear Mr. Brian Carlson and Mr. Nick Wilson:

Thank you for choosing Minnesota State University IT consultancy. We are excited to be working with your department on this project.

We will be starting with a few preliminary investigations to find out more details on how we can help you build a system that fits the current existing system. Some of the additional features we shall look into are:

Sales tracking

Scheduling meeting

Tracking phone calls made to customers

Setting reminders

Managing current and potential customers

Mapping out tasks

Organizing notes

Lastly, our team is looking forward to working with you in the weeks to come. We will be gathering the information needed to develop the CRM in the coming weeks. Please be patient as we transition towards the implementation and testing phase of the CRM.

Sincerely,

Gold Team

IT Department

Team Description

Erich | Skills: Python, SQL, Operating Systems

Salman Omar | UI Specialist - Skills: Python, SQL, OSX

Jacob | - Skills: Python, SQL

Kshitiz | Skills: Python, SQL, HTML

Nicholas | Skills: SQL, Network Security, Python

General Description of Federated Insurance

Federated Mutual Insurance Company headquartered in Owatonna is an insurance company providing its service to businesses through valued insurance protection.

General information

- Federated sells various insurances to other types of businesses
- They sell life, property, casualty, and disability insurances
- Their production clients include auto, woodworking, contractors, building, farm, funeral services, printers, machining, jewelry, retail, industrial, and more
- Specializes in “Prime Classes”
- Mission statement - “We believe our value is measured by the success of our clients”

Employees Who Will Use the System

MR:

Marketing Representatives are the ones who will be using the CRM daily. They will use the system to log and manage interaction with their designated customers and will have the access to both read and write. They will use this system to manage the customers in the territories they are responsible for.

DMM:

DMMs are the district marketing managers and will be referred to as “DMM” in this section. People who fall into the category of DMM need to be able to have read and write access for district managers and marketers in their respective territory. They will use this system to oversee their regional marketing managers and the marketers within their managed territories

RMM:

RMMs are the Regional Marketing Managers. They will be using the CRM to manage and oversee their DMMs and MRs in the region. They will be needing read/write access for region, their district/district employees, and their territory/territory employees.

Home Office Representatives:

Home Office Representatives are employees that work from a remote location and help the marketers with scheduling their appointments. They need to be able to have read and write access for all regions, to view and edit appointments that will fit within the marketer’s busy schedules.

System Request Form

Name: Bryan

Department: IT

Employee ID: 2321656

Email: bryan.carlson@federated.com

Title: Project Manager

Location: Headquarters (Owatonna, MN)

Request

☐

System enhancement

☒

New System

☐

System Access

Request Summary

Description: We need a new customer relationship management system. Customer information is vital to the business and the way we collect, organize and look up that information needs to be approved. We ask that you come up with a more efficient and better way to collect and retrieve this information so that our sales team can better work with our customers daily without a hassle and bring in more revenue for the company.

Completion By: May 4, 2018

To be completed by IT Department

☒

Approved

☐

Denied

☐

Modified

Assigned to: IT380 Team 9

Fact Finding Assignment Questions

- What is the Field Marketing and ARMS division?
- What is the classification for insured, suspect, prospect, and member list customers?
- What is MR, and what is the relationship between MR and your customers?
- What kind of internal collaboration do you do within the company, and who participates?
- What do you consider to be a “360 view” of your customers?
- What do you define mobility as in terms of the application?
- What is the extent of integration that you need with Microsoft Outlook?
- How many employees do you think will be accessing this database at once?
- Is there anything that we can transfer over from our current system to the new one?
- What functionality is need for the new CRM?
- How are the territories separated?
- Will there be any connections between territories?
- What format of systems do you have now that will need to be integrated into the CRM?
- What access levels will be needed for the CRM?
- What are some goals and fields you would want in a field report?
- What makes the system you have now inefficient?
- What security risks exist with your current system?
- What scale of development is expected for the CRM?
- Will the system be used mobile?

Results of Fact Finding

The current system used by Federated Insurance is very vague between marketers. The current process consists of individual employees using their own methods to keep track of customer information and appointments, some use Excel, or Word, and some simply use pen and paper. The main issue that arises from this current system is that it makes it extremely difficult to accurately track and follow up with customers. This also makes communication between marketers and their management a chore, as to congregate all the necessary customer information to follow up with management takes more time than the marketer and management discussion would.

For the new CRM, Federated is mainly focused on having the ability to schedule and manage appointments efficiently, have efficient and recurring reminders that can be customized, have some form of dashboard system to get reports from progress made, and to have a singular unified system to store customer information.

The CRM will be used mostly by the marketers who are interacting with customers. They will use the system for inputting customer information, management of their schedule, setting appointments, and receiving reminders from the CRM. The district marketing managers will use the CRM to manage and track the progress of the marketers under them. It would be rare for a member of management to input information directly into the CRM, but in the case of a marketer quitting or being fired a manager will need read and write access to the CRM. This way, customer data can be modified if a manager has to temporarily take the duty of a previously-employed marketer.

Data should that needs to be stored includes necessary customer information such as address, customer status, company name, individual name, email, phone, territory, and notes for individuals, expiration date of current policies. Most if not all this data will come from the interactions between the customers and the marketing representatives.

This system needs to have a report system that should include how many new customers have the marketers brought in, and a dashboard look ahead for the day, whole week, and following week.

The only hardware constraints that we would assume is the lack of hardware overall. With their current system or lack thereof, they may not have the technology required to handle the CRM that is being designed. A new and improved system of servers may need to be implemented to handle the execution of this CRM, and the many connections that will exist from marketers accessing this CRM system nationwide.

Project Scope and Recommendations

In Scope

- Logging system for when you meet people or have meetings (Name, Job Title, Time, Date, Phone Number, Email, Notes)
- Customer relations with the marketing representative.
- Creating CRM system that interfaces w/Outlook
- Calendar
- Reminders of insurance policy expiration date of Federated's clients (Prospects, Insured, Uninsured)
- Hiding of companies that are out of their territory (Don't need to see them)
- Upper management needs to see productivity of lower tiers
- Note taking capabilities to work with every function implemented in the new design
- Dashboard recommended (Keep track of Schedule)
- Generate reports for upper management

Out of Scope

- Mobile App
- Sales
- Network Security
- Keeping track of personal expenses used on clients
- Existing system integration
- Creating use for external clients to view their account
- Network Security of Clients Data (Assuming existing security is sufficient)
- Large way to import customer data
- Map Radius if an appointment gets cancelled you can see the nearest businesses that you could possibly go to.

Feasibility Analysis

Operational feasibility

- The new system will be supported by the markers and their higher ups.
- The system will require the end users to go through some training to understand the ins and outs of the new system. It will like the current, but different in its own ways such as how the inputs and outputs are generated.

- The system needs the users to be involved in the making of the new system because it will be they will be using daily.
- The system will be built to perform faster and stronger than the current system without too much sacrifice. We will make to display more information to the end user and let them decide how they want to organize it.
- This system will not affect the customers in any way as it built directly for the marketers.

Economic feasibility

- The system should have an initial \$65 cost to develop. From there, the operating cost will be lower than the current system.
- Tangible costs - the license to run the software will be an annual cost per operation will be \$10,000. There will be tech available to assist with any software bugs or roadblocks that the end users' face. The maintenance cost for the year will be around \$6,000 as this will cover the updates and make sure the system is running effectively.
- Intangible cost - we are certain that the end users will like the new system better than the current as it will be more user friendly and easier to use.
- We hope that the new system will help with the quality of the marketers and help them bring in at least \$200 million in sale yearly for the company.

Buy/Build Feasibility

- Buy Pros
 - Already available
 - Lots of customization potential
 - Deployable on multiple operating systems
 - Both cloud and desktop operations
 - Scalable, based on business size
- Buy Cons
 - Cost would grow per user added to the system (Average of about \$40 x n users per month)
 - Not custom made to a business
 - Additional features would be charged per user per addition (About \$15 x n users per month per feature added)
- Build Pros

- Custom solution encompassing everything needed for a specific business
- Cost would be a one-time payment
- System help would be on-site
- Build Cons
 - Time to completion would be longer than instantly buying one
 - Workers are accountable for system errors and updates

Context Diagram

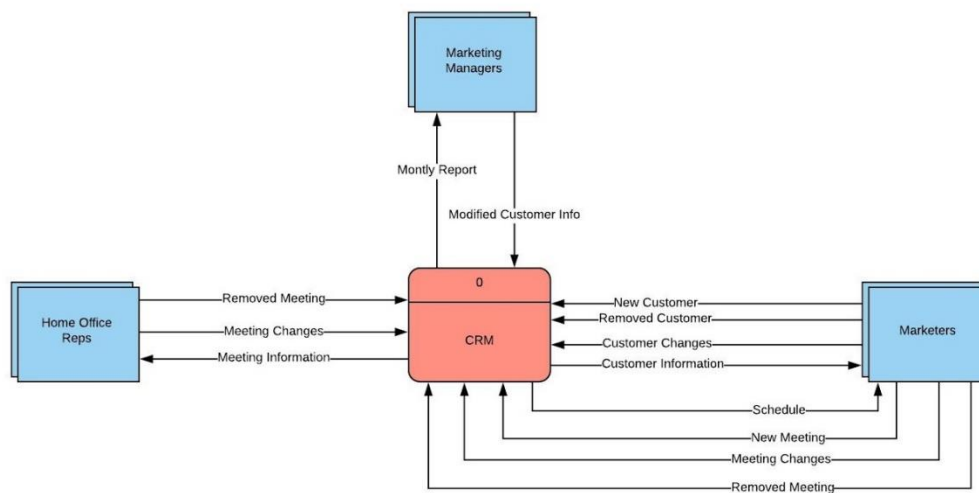
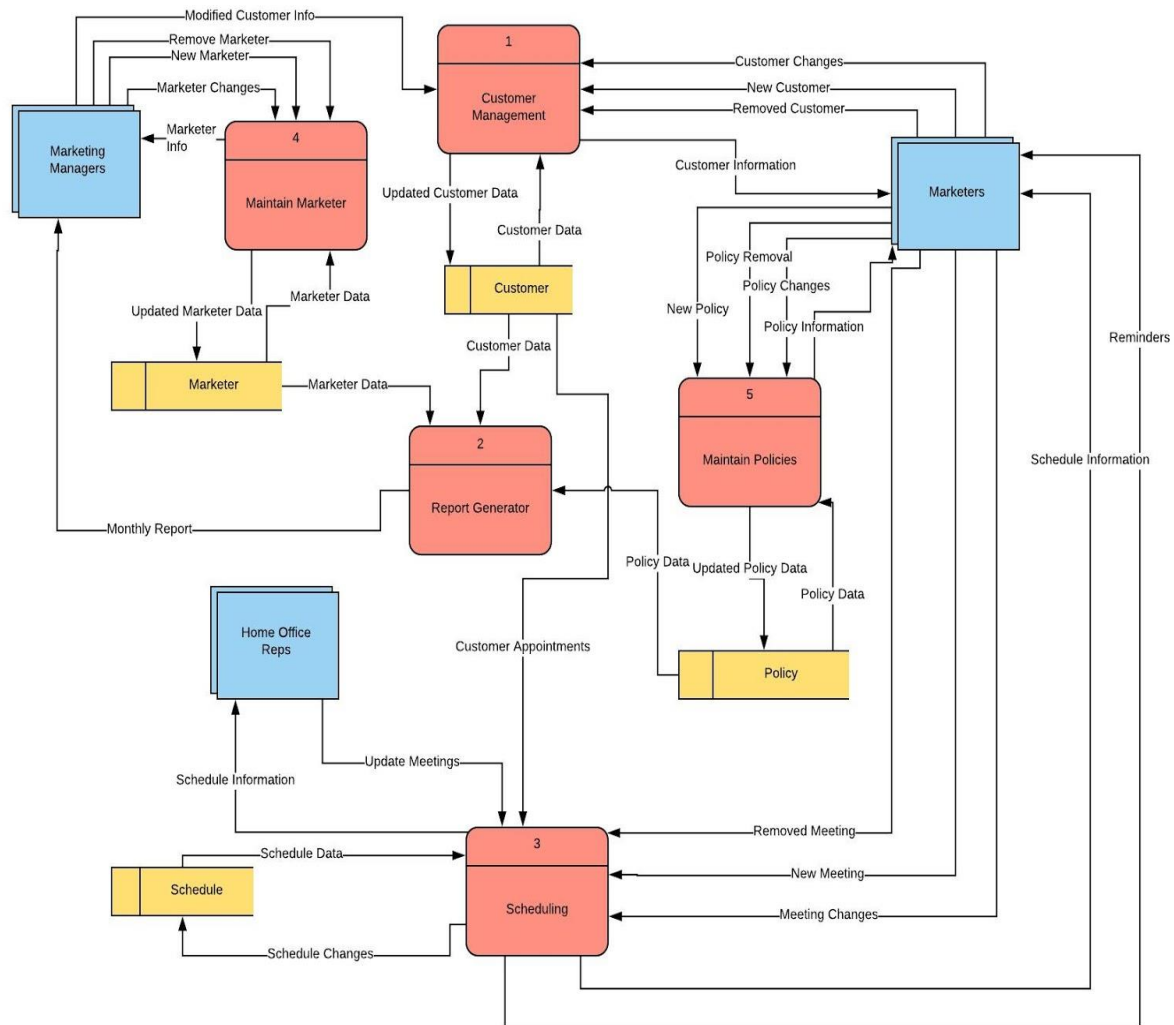


Diagram Zero



Child Diagrams

Diagram One

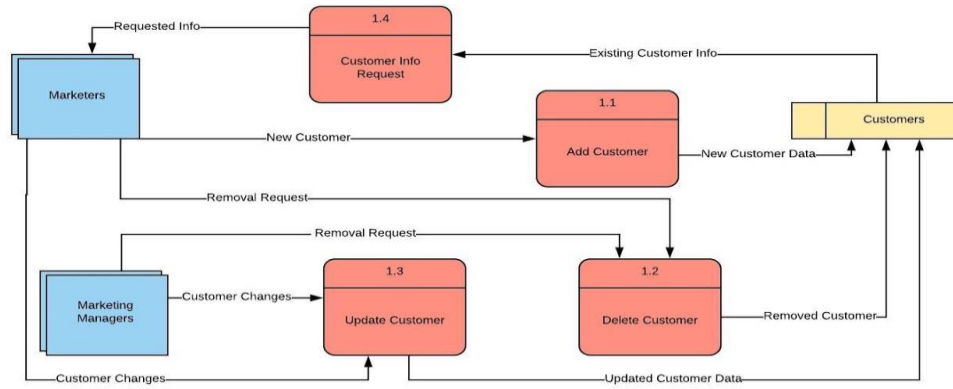


Diagram Two

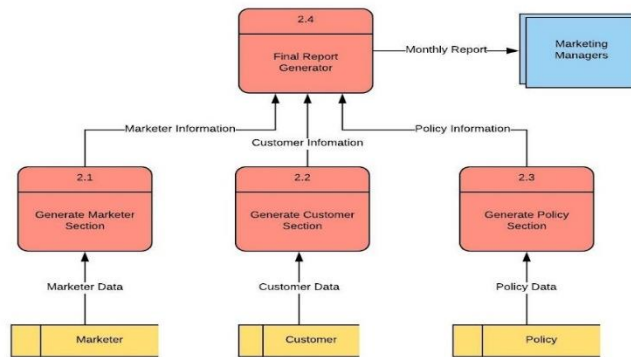


Diagram Three

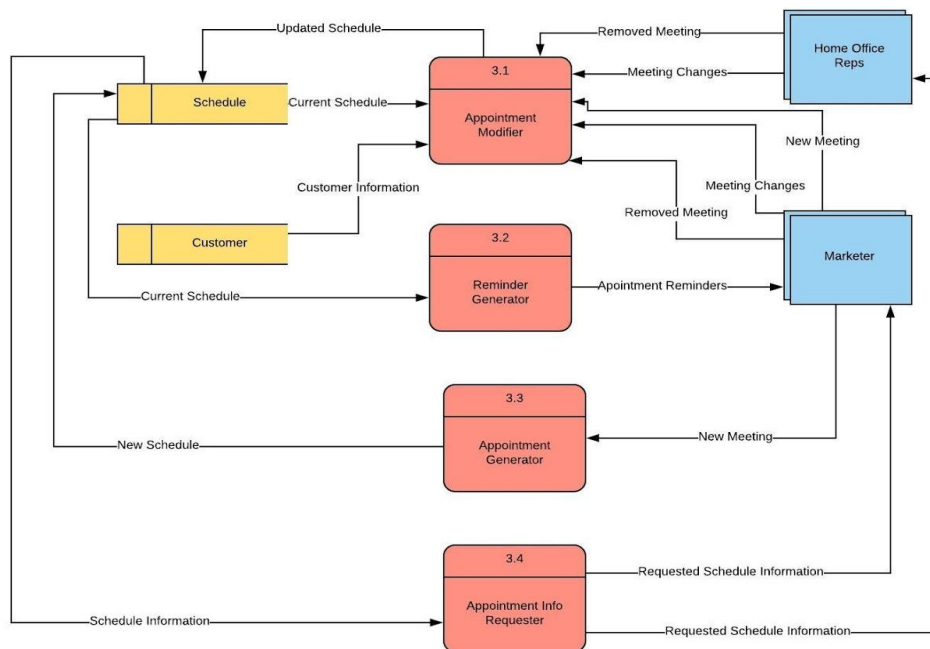


Diagram Four

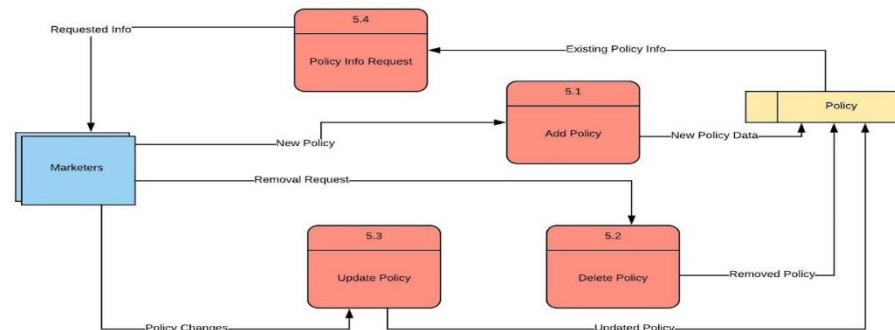
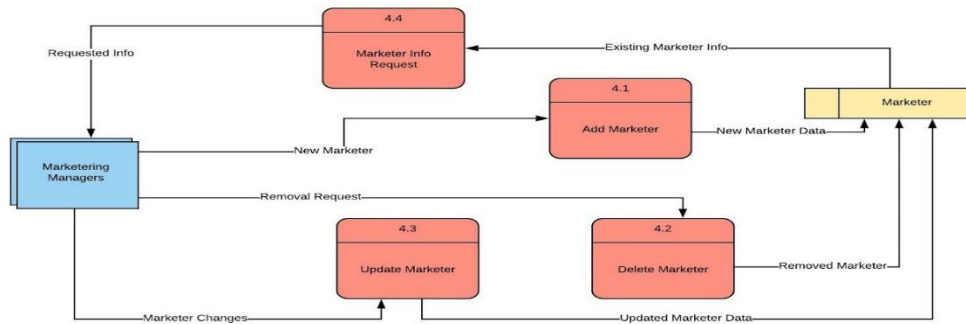
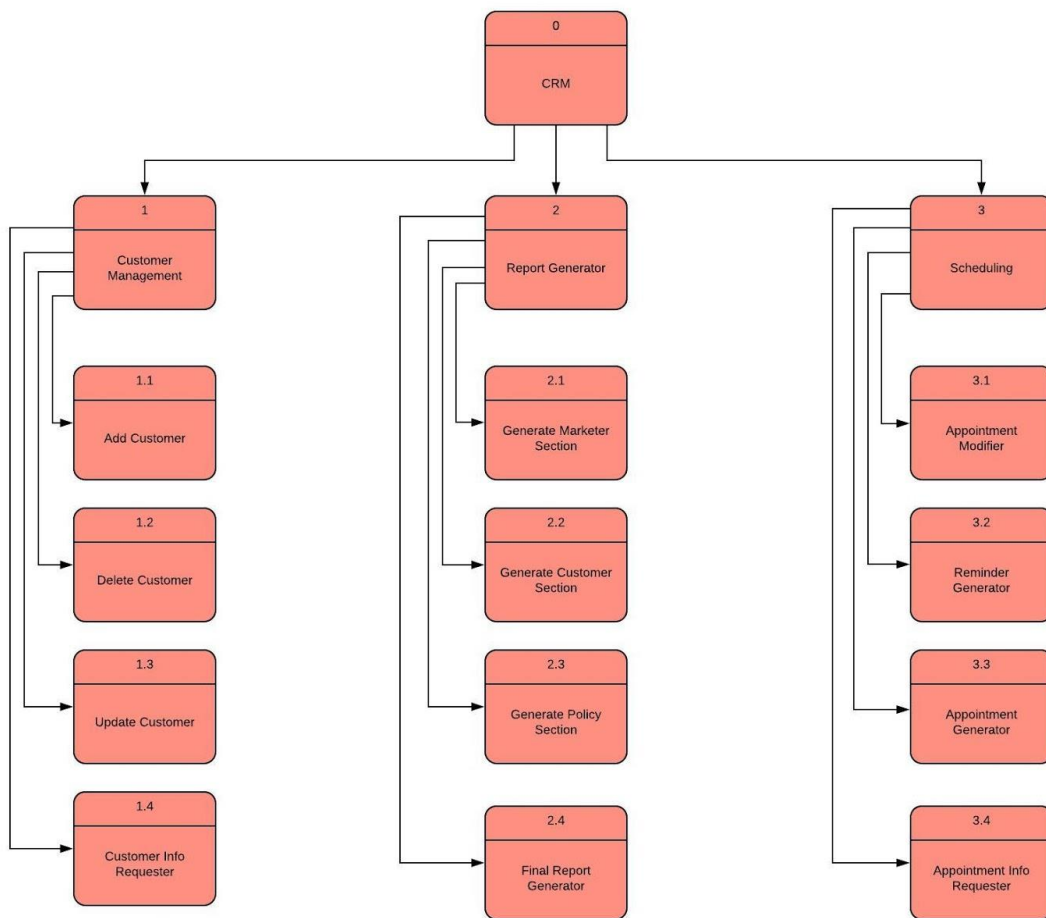


Diagram Five

Decomposition Diagram



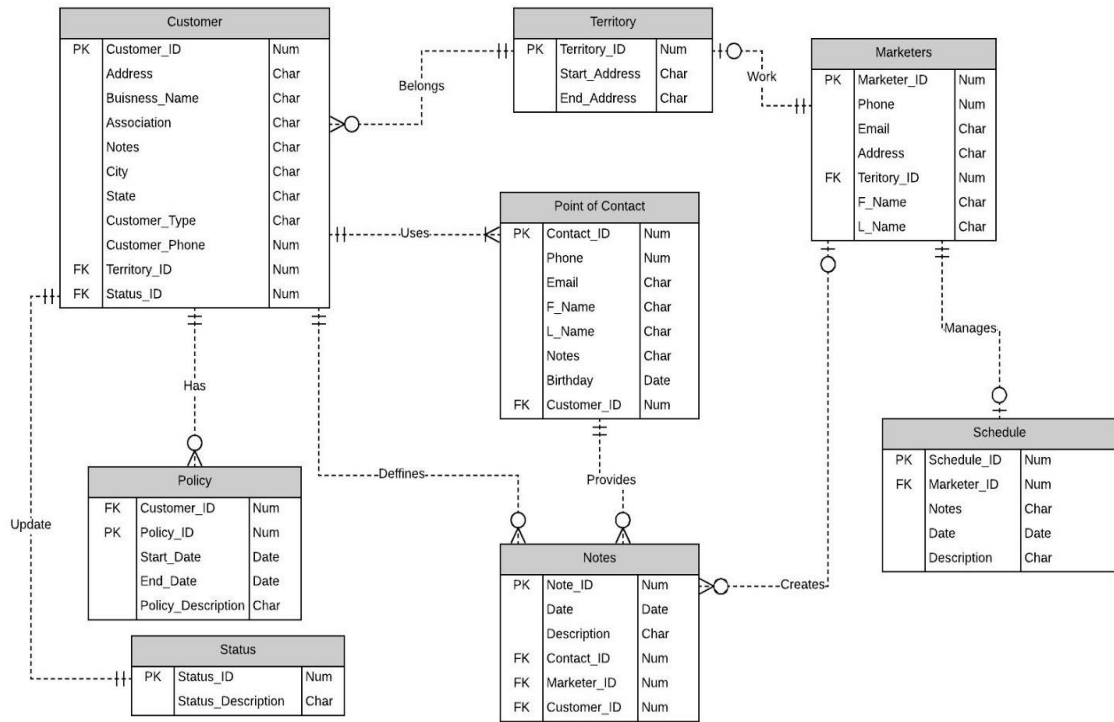
Data Dictionary

External Entities	Description	Data Flow Out	Data Flow In	Data Flow	Fields
Marketing Managers	The RMM and DMM of Federated	Edit Customers	Reports	Monthly Reports Modified Customer Info	Customer Marketers Policy
Marketers	The representatives that sell insurance for federated (Main Users)	Edit Customers Remove Customer Add Customer Notes	Customer Information	New Customer Removed Customer Customer Changes Customer Information Schedule New Meeting Meeting Changes Removed Meeting	Customer Marketers Schedule
Home Office Reps	Provide support from headquarters to Marketing reps	Edit Meetings Remove Meetings Add meetings Dates	Customer Information	Removed Meeting Meeting Changes Meeting Information	Schedule

Process Number	Process Name	Data Flow In	Description	Data Flow Out
1	Customer Management	Customer Changes New Customer Removed Customer Modified Customer info	In this process, customer information is entered and altered. The process is triggered when a marketer or manager requests to enter, view, or edit information. The output is displayed in table format.	Updated Customer Data Customer Information
2	Report Generator	Marketer Data Policy Data Customer Data	In this process customer, marketer, and policy information come in to form reports. The process is triggered when a manager selects a report and requests it to be generated. The output is displayed in the form of a report designed by the team.	Monthly Reports
3	Scheduling	Removed Meeting New Meeting Meeting Changes Customer Appointments Update Meetings Schedule Data	In this process customer, and schedule data comes in to create and maintain a schedule for each marketer. This process is triggered when a marketer requests to view their schedule.	Schedule Changes Schedule Information Reminders

Data Store Identifier	Field Names	Metadata
Customer	Customer_ID	Number
	Address	Character
	Buisness_Name	Character
	Current_Insurance_Provider	Character
	Exp_Date_Current_Policy	Date
	Status	Character
	Association	Character
	Notes	Character
	City	Character
	State	Character
Policy	Policy_ID	Number
	Start_Date	Date
	End_Date	Date
Territory	Territory_ID	Number
	Start_Address	Character
	End_Address	Character
Marketers	Marketer_ID	Number
	Phone	Number
	Email	Character
	Address	Character
Schedule	Schedule_ID	Number
	Appointments	Character
	Reminders	Character

Entity Relationship Diagram




CRUD Matrix


CRUD Matrix	Data Stores			
Processes	Marketer	Policy	Customer	Schedule
1.1 Add Customer		R	C	
1.2 Update Customer	R		U	
1.3 Delete Customer			D	
2.1 Add Meeting			R	C
2.2 Remove Meeting				D
2.3 Update Meeting				U
3.1 Send Reminder			R	C
4.1 Request Appointment Information			R	C
4.2 Request Customer Information	R		C	
4.3 Request Policy Information		C	R	
5.1 Create Note	R	C	R	
5.2 Delete Note		D		
5.3 Update Note		U		

User Interface Sketches

Help

Reports

Account 

Settings 

Search...



Select Report

Marketer name:

Time:

Date:

New clients added:

Issued:

Existing clients reissued:

of amount of

Submit

Add Report

By: Gold Team

9:00 am

Remove Report

By: Gold Team

9:00 am

Customer Info Page

Account A	Settings *	Searcher: <input type="text"/>
-----------	------------	--------------------------------

Customer Information

Select Customer

CustomerId:	LName:	MI:	FName:
Email:	Phone:	Company Name:	
Type of business:	Territory:	Policy Exp date:	
Notes:			Select

Add Customer

Customer Id:	LName:	MI:	FName:
Email:	Phone:	Company Name:	
Type of business:	Territory:	Policy Start date:	
Notes:	Policy Exp date:		Add

Remove Customer

Customer Id:	LName:	MI:	FName:
Email:	Phone:	Company Name:	
Type of business:	Territory:	Policy Start date:	
Notes:	Policy Exp date:		Remove

By: Gold Team

9:18 AM

Help

Home Page

"CRM System Name"

Account A

Settings*

Search...

Q

Calender

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Customer

- Select Customer
- Add Customer
- Remove Customer
- Customer Filter

Reports

- Select Report
- Add Report
- Remove Report

By: Gold Team

9:18 AM

Marketers

Description

Marketers will have read/write permission of Customer Data. They will be able to add and remove customer data as they please. The marketers will also have read/write permission of the scheduling system. Marketers will be able to add and remove data from the scheduling system. Marketers do not full have access to report generating. Marketers will only be able to read reports, not edit them.

Permissions

- Customer Management- Read/Write
- Scheduling- Read/Write
- Report Generator- Read Only

Marketing Manager

Description

Marketing Managers have read only permission for customer data. They will only be able to view customer data that is gathered by the marketers. Also marketing managers have read only permission for reports that are generated. This gives the ability to view monthly reports that are generated for a certain marketer. Marketing managers will not have any access to the scheduling system.

Permissions

- Customer Management- Read Only
- Scheduling- None
- Report Generator- Read Only

Office Home Rep

Description

Office Home Reps have read/write access of the Scheduling system. This gives them the ability to receive scheduling information and also update schedule/meetings. Office Home Reps do not have access to customer data or report generator.

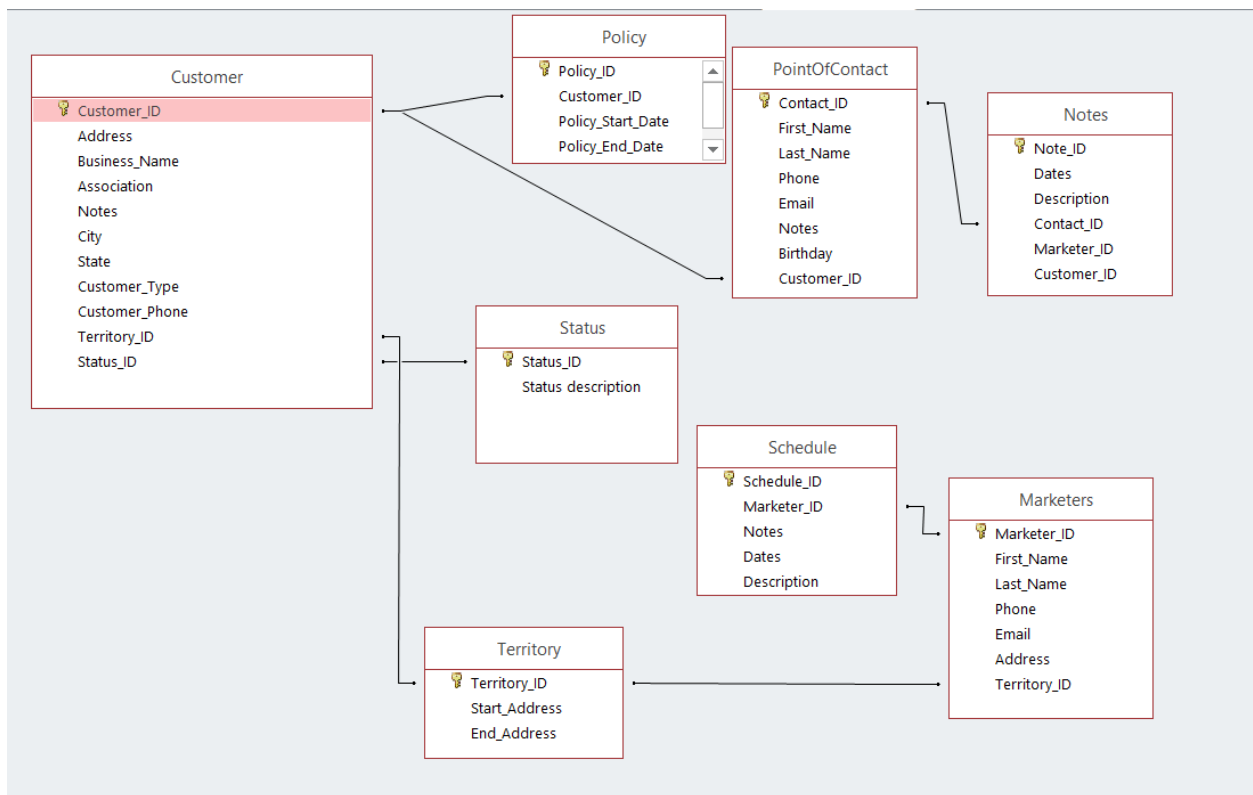
Permissions

- Customer Management- None
- Scheduling- Read/Write

- Report Generator- None

Access Implementation


Tables



Queries

Customer_ID	Business_Name	Policy_End_Date	Policy_Description
5	Caldwell Manufacturing	4 /20/2018	Casualty
3	Wilson Auto	4 /4 /2018	Property
6	Caldwell Manufacturing	4 /4 /2018	Property
9	Thomas Woodworking	4 /23/2018	Life
1	Johnson and Johnson	4 /27/2018	Casualty
*			

Homepage

FEDERATED
INSURANCE

Search _____ Marketer _____

Customer

Policy

Schedule

Business Name

Johnson and Johnson

Steves Rotors

Wilson Auto

Freud Psychology

Spanish Palms Mortuary

Caldwell Manufacturing

Bell Electronics

Jordan Refrigeration

Policy_ID

1

2

3

4

5

6

7

8

WEEK OF: _____ Month / Year: _____

TIME	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
Noon							
12:00							
14:00							
15:00							
16:00							
17:00							
18:00							
19:00							
20:00							
21:00							

Upcoming Expiring Policies

Customer Page

Edit Customer

Home

Customer_ID

1

Address

4376 Franklin Ave

Business_Name

Johnson and Johnson

Association

IEEE

Notes

City

Minneapolis

State

MN

Customer_Type

Jeweler

Customer_Phone

(996)-578-9030

Territory_ID

1

2

3

4

Status_ID

1

2

3

Insured

Uninsured

Prospect

Policy Page

Edit Policy		Home
Policy_ID		
Customer_ID	<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div>	
	<div>1</div>	
Policy_Start_Date	<div>2 /14/2018</div>	
Policy_End_Date	<div>8 /14/2018</div>	
Policy_Description	<div>Property</div>	

Schedule Page

Schedule		Home
Schedule_ID	<div>1</div>	
Marketer_ID	<div>1</div> <div>2</div> <div>3</div>	
Notes	<div>Meeting</div>	
Dates	<div>5/1/2018</div>	
Description	<div>Meet with Johnson and Johnson</div>	

Reports Page

Monthly Policy Expiration Report		Thursday, April 26, 2018	
		10:10:08 AM	
		Home	
Customer_ID	Business_Name	Policy_End_Date	Policy_Description
6	Caldwell Manufacturing	4 /20/2018	Casualty
3	Wilson Auto	4 /4 /2018	Property
6	Caldwell Manufacturing	4 /4 /2018	Property
9	Thomas Woodworking	4 /23/2018	Life
1	Johnson and Johnson	4 /27/2018	Casualty

Appendix