



## Entity Relationship Diagram (CRM Systems)



BY:

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GROUP NUMBER: 6

WEEKLY MEETING: WEDNESDAY 8:30 PM (ICE- BOX, HINDS HALL)



## OVERVIEW

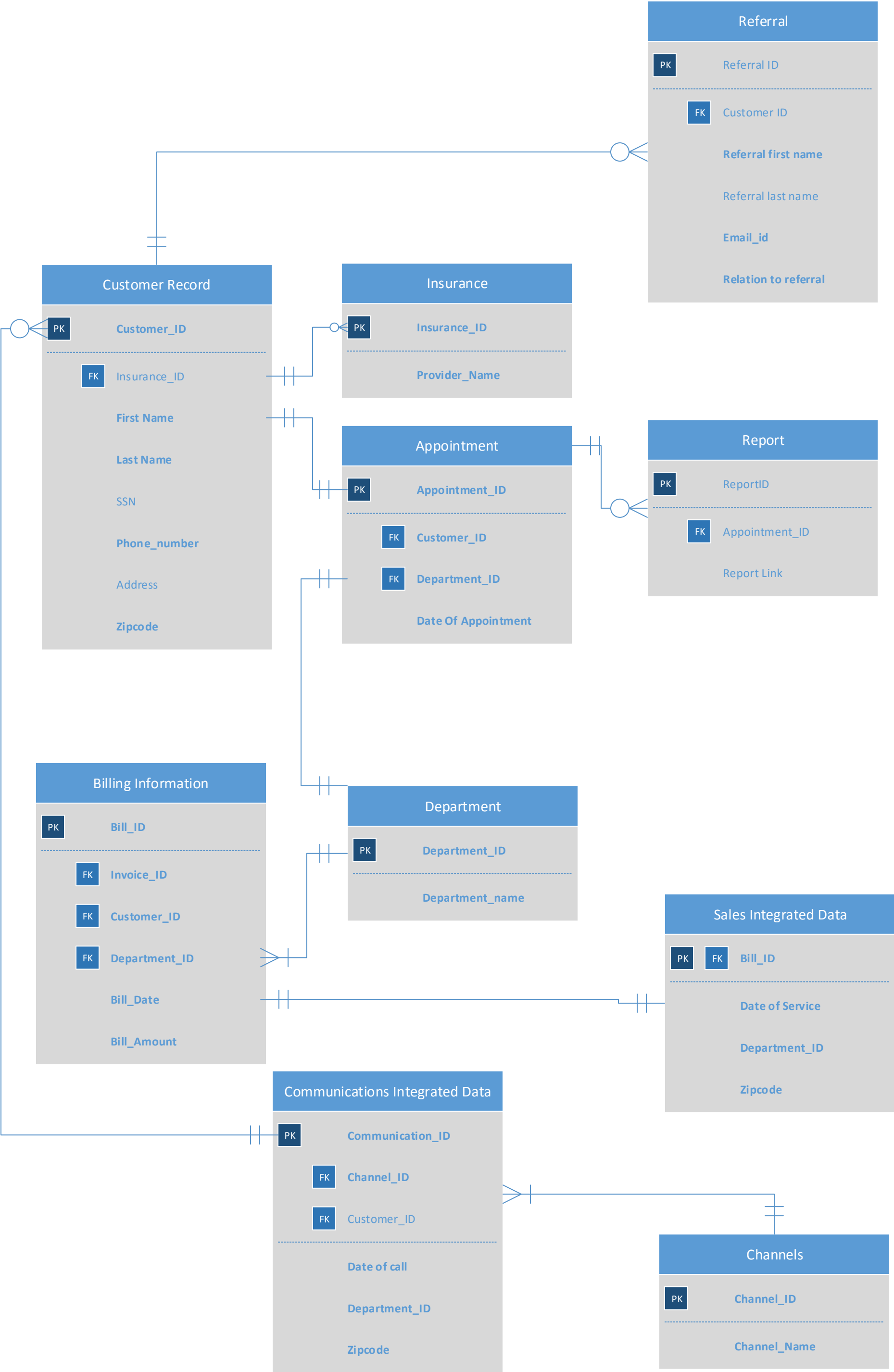
In this section of the document we will be defining the database table used by the CRM systems. Before designing any system, we will be defining the Business rules.

Data flow of the organization has been already defined in the DFD diagram. CRM acts as a unifier system for all the sales and communication data at GenNex.

Apart from being the unifier, CRM also stores the customer data which is been shared between the internal and the external stakeholders.

### Business Rules:

- A Customer may have zero or many insurance
- An Insurance Policy can be bought by exactly one and only one customer
- Billing information can be from only one department
- A department can have one or many billing information
- Sales integrated data may have one or many billing information
- Billing Information may have exactly one Sales information
- Communications Integrated data can exactly have one channel information
- A referral can be given by only one customer
- A customer can give zero or more referrals
- A report must have one and only one appointment details



## Table Name      Customer Record

Attribute Name	Description	PK/FK	Not Null
Customer_ID	ID number for customer record	Primary Key	Yes
Insurance_ID	ID number for Insurance record	Foreign Key	No
First Name	First Name of Customer		Yes
Last Name	Last Name of Customer		Yes
SSN	SSN of Customer		No
Phone_number	Phone number of Customer		Yes
Address	Address of Customer		No
Zipcode	Zip code of Customer		Yes

## Table Name      Insurance Record

Stores Insurance details of customers

Attribute Name	Description	PK/FK	Not Null
Insurance_ID	ID number for Insurance record	Primary Key	Yes
Provider_Name	Name of Insurance Provider		Yes

## Table Name      Referrals

Stores details about referrals

Attribute Name	Description	PK/FK	Not Null
Referral_ID	ID number for Referral record	Primary Key	Yes
Customer_ID	ID number for customer record	Foreign Key	Yes
Ref First Name	First Name of Customer		Yes
Ref Last Name	Last Name of Customer		Yes
Email_Id	email_ID of customer		Yes
Relation to Referral	Relation of customers		No

## Table Name Billing Information

Stores details about Billing data

Attribute Name	Description	PK/FK	Not Null
Bill_ID	ID number for Bill record	Primary Key	Yes
Department_ID	ID number of Department	Foreign Key	Yes
Customer_ID	ID number for customer record	Foreign Key	Yes
Bill_date	Date of Bill Generated		Yes
Billing_Amount	Amount of Bills		Yes

## Table Name Department

Stores details about Department

Attribute Name	Description	PK/FK	Not Null
Department_ID	ID number of Department	Foreign Key	Yes
Department_Name	Name of Department		Yes

## Table Name Appointment

Stores details about  
Appointments

Attribute Name	Description	PK/FK	Not Null
Appointment_ID	ID of Appointments	Primary Key	Yes
Customer_ID	ID number for customer record	Foreign Key	Yes
Department_ID	ID number of Department	Foreign Key	Yes
Date_Of_Appointment	Date Of Appointment		Yes

## Table Name Report

Stores details about Reports  
Generated

Attribute Name	Description	PK/FK	Not Null
Appointment_ID	ID of Appointments	Foreign Key	Yes
Report_ID	ID number for customer report	Primary Key	Yes
Report Link	Report Link to department		Yes

## Table Name

## Channels

Stores details about Different Channels

Attribute Name	Description	PK/FK	Not Null
Channel_ID	ID of Particular Channel	Primary Key	Yes
Channel Name	Name of Particular Channel		Yes

## Communication Channel

## Table Name

## Integrator

Integrates data from different channels

Attribute Name	Description	PK/FK	Not Null
Communication_ID	ID number Communication record	Primary Key	Yes
Channel_ID	ID number for channel record	Foreign Key	Yes
Customer_ID	ID number of Customer		Yes
Date of Call	Date Of Call		Yes
Department_ID	ID of each department		Yes
Zipcode	Zipcode of Customer		Yes

## Table Name

## Sales Integrated Data

Integrates data from different channels

Attribute Name	Description	PK/FK	Not Null
Bill_ID	ID number of Bill ID	PK/FK	Yes
Date of Services	Date Of services availed		Yes
Customer_ID	ID number of Customer		Yes
Department_ID	ID of each department		Yes
Zipcode	Zipcode of Customer		Yes