***FINAL REPORT***

***PROJECT ON HEALTH CARE INSURANCE***

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| **Skill Assessment:** | |
| Technical Skills | **SQL, DBMS, DB2** |
| Functional Skills | **Building Database, Data Entry** |

**Business case analysis and the problems we wish to solve through this database approach:**

The database system that we have designed is for a health care provider company. US has the biggest Health Care system in the world. We are trying to monitor all the stakeholders involved in this business so that we can have a clear view of the data involved in this industry.

If all the data for the industry is present at one location, it would be easier for the insurance company and members to have access to the data. By looking at this data the companies can design further strategies such as which age group people are claiming more money for insurance or is there any proactive step insurance company can take so that they can give a heads up for the members saying your Health check-up is due by certain date and if you do it by this date then give them a gift voucher. This way it is a win-win situation for both members and the insurance company as well.

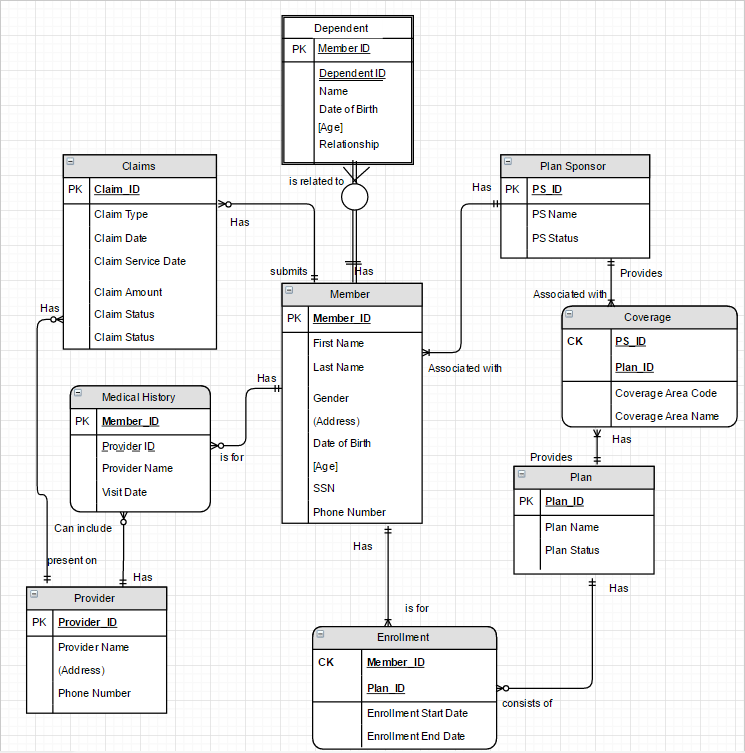
**Expected users of our DBMS application:**

* All the Members who have been enrolled for Health Insurance.

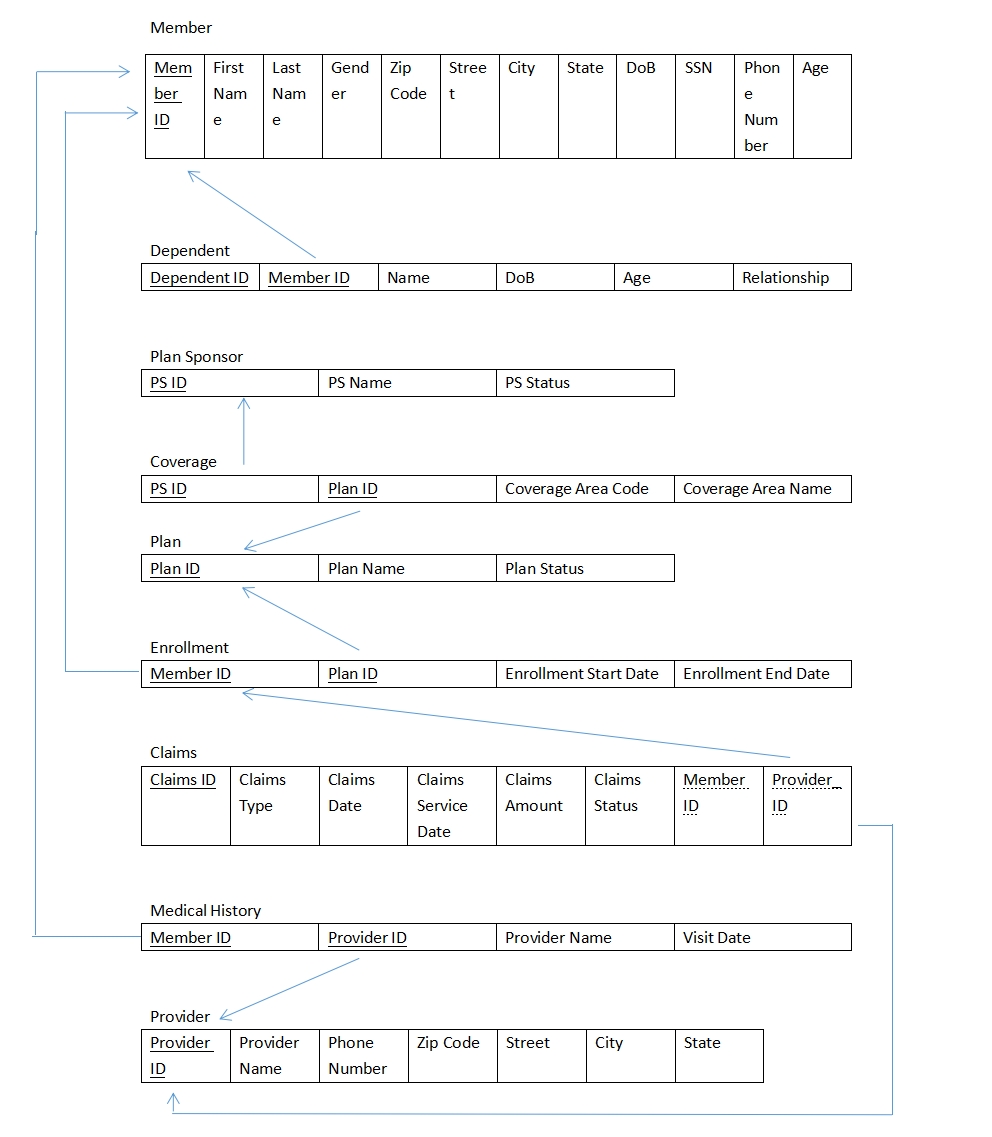
**Functionality of the database:**

* Single data base repository which stores data for all the stake holders and related entities.
* Modular database which is easy to understand and use.
* Easier for employees in insurance company to evaluate claims and plans.
* Easier for members to check their claims history and status.

***ER DIAGRAM [IN 3RD NORMAL FORM]:***

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***FUNCTIONAL DEPENDENCY DIAGRAM [3RD NORMAL FORM]:***



***FULL IMPLEMENTATION OF THE DATABASE:***

***SQL QUERIES:***

***MEMBER TABLE CREATION:***

CREATE TABLE Members(Member\_ID VARCHAR2(20) not null primary key,

First\_Name VARCHAR2(20) not null,

Last\_Name VARCHAR2(20) not null,

Gender VARCHAR2(1)not null,

Street VARCHAR2(20) not null,

city VARCHAR2(20) not null,

State varchar2(20) not null,

Date\_Of\_Birth Date not null,

Age number(20,0) not null,

SSN VARCHAR2(20) not null,

Phone\_Number NUMBER(10) not null,

PS\_ID varchar2(20) not null,

constraint PSID foreign key (PS\_ID) references Plan\_sponsor(PS\_ID),

constraint ck\_gender check (Gender in ('M', 'F'))

);

***PROVIDER TABLE CREATION:***

CREATE TABLE Provider(Provider\_ID varchar2(50) not null primary key,

Provider\_Name VARCHAR2(50) not null,

Provider\_Address VARCHAR(50) not null,

Provider\_Phone\_Number varchar2(50) not null

);

***CLAIMS TABLE CREATION:***

CREATE TABLE Claims(Claim\_ID varchar(20) not null primary key,

Claim\_Type VARCHAR2(14) not null,

Claim\_Date date not null,

Claim\_Service\_Date date not null,

Claim\_Amount number(10) not null,

Claim\_Status VARCHAR2(20) not null,

Member\_ID varchar(20) not null,

provider\_ID varchar2(20) not null,

constraint M\_ID foreign key (Member\_ID) references Members(Member\_ID),

constraint PR\_ID foreign key (Provider\_ID) references Provider(Provider\_ID)

);

***PLAN SPONSOR TABLE CREATION:***

CREATE TABLE Plan\_Sponsor(PS\_ID varchar2(20) not null primary key,

PS\_Name VARCHAR2(20) not null,

PS\_Status VARCHAR(20) not null

);

***PLAN TABLE CREATION:***

CREATE TABLE Plan(Plan\_ID varchar(20) not null primary key,

Plan\_Name VARCHAR2(24) not null,

Plan\_Status VARCHAR(20) not null

);

***DEPENDENT TABLE CREATION:***

CREATE TABLE Dependent (

Member\_ID VARCHAR2(20) not null,

Dependent\_ID VARCHAR2(20) not null primary key,

Dependent\_Name VARCHAR2(24) not null,

constraint FK\_MB foreign key(Member\_ID) references members(member\_ID),

Dependent\_DOB date not null,

Age NUMBER(2) not null,

Relationship VARCHAR2(24) not null

);

***COVERAGE TABLE CREATION:***

CREATE TABLE Coverage(PS\_ID varchar(20) not null references

Plan\_Sponsor(PS\_ID) ,

Plan\_ID VARCHAR2(20) not null references Plan(Plan\_ID),

constraint PK\_D primary key (PS\_ID, Plan\_ID),

coverage\_area\_code varchar(24) not null,

coverage\_area\_name varchar(24) not null

);

***MEDICAL HISTORY TABLE CREATION:***

CREATE TABLE Medical\_History(Member\_ID varchar2(20) references Members(Member\_ID),

Provider\_ID varchar2(20) not null,

constraint PK\_MH foreign key(Member\_ID) references members(member\_ID),

constraint PID foreign key (Provider\_ID) references Provider(Provider\_ID),

Visit\_Date date not null

);

***CREATING ENROLLMENT TABLE:***

CREATE TABLE Enrollment(Member\_ID varchar(20) references Members(Member\_ID) ,

Plan\_ID varchar2(20) not null references Plan(Plan\_ID ),

constraint EK\_C primary key (Member\_ID, Plan\_ID),

Enrollment\_Start\_Date Date,

Enrollment\_End\_Date Date

);

***Insert Queries for enrollment.***

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M1','PL01',to\_date('2014-01-01','yyyy-mm-dd'),to\_date('2014-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M1','PL02',to\_date('2013-01-01','yyyy-mm-dd'),to\_date('2013-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M1','PL03',to\_date('2015-01-01','yyyy-mm-dd'),to\_date('2015-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M2','PL01',to\_date('2014-03-04','yyyy-mm-dd'),to\_date('2015-03-04','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M3','PL04',to\_date('2016-01-01','yyyy-mm-dd'),to\_date('2016-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M3','PL05',to\_date('2015-01-01','yyyy-mm-dd'),to\_date('2015-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M4','PL04',to\_date('2014-05-05','yyyy-mm-dd'),to\_date('2015-05-05','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M4','PL05',to\_date('2015-05-06','yyyy-mm-dd'),to\_date('2016-05-06','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M5','PL02',to\_date('2014-02-02','yyyy-mm-dd'),to\_date('2015-02-01','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M5','PL04',to\_date('2015-02-02','yyyy-mm-dd'),to\_date('2016-02-01','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M7','PL02',to\_date('2015-06-06','yyyy-mm-dd'),to\_date('2016-06-05','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M7','PL04',to\_date('2016-06-06','yyyy-mm-dd'),to\_date('2017-06-05','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M8','PL01',to\_date('2014-01-01','yyyy-mm-dd'),to\_date('2014-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M8','PL02',to\_date('2015-01-01','yyyy-mm-dd'),to\_date('2015-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M8','PL03',to\_date('2016-01-01','yyyy-mm-dd'),to\_date('2016-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M9','PL01',to\_date('2015-09-09','yyyy-mm-dd'),to\_date('2016-09-08','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M10','PL02',to\_date('2014-06-28','yyyy-mm-dd'),to\_date('2015-06-27','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M10','PL04',to\_date('2015-06-28','yyyy-mm-dd'),to\_date('2016-06-27','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M11','PL01',to\_date('2014-05-28','yyyy-mm-dd'),to\_date('2015-05-27','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M11','PL03',to\_date('2015-05-28','yyyy-mm-dd'),to\_date('2016-05-27','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M11','PL05',to\_date('2016-05-28','yyyy-mm-dd'),to\_date('2017-05-27','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M12','PL04',to\_date('2014-03-03','yyyy-mm-dd'),to\_date('2015-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M12','PL05',to\_date('2015-03-03','yyyy-mm-dd'),to\_date('2016-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M13','PL03',to\_date('2014-07-07','yyyy-mm-dd'),to\_date('2015-07-06','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M13','PL04',to\_date('2015-07-07','yyyy-mm-dd'),to\_date('2016-07-06','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M14','PL03',to\_date('2014-03-03','yyyy-mm-dd'),to\_date('2015-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M14','PL04',to\_date('2015-03-03','yyyy-mm-dd'),to\_date('2016-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M15','PL01',to\_date('2015-03-03','yyyy-mm-dd'),to\_date('2016-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M15','PL02',to\_date('2016-03-03','yyyy-mm-dd'),to\_date('2017-03-02','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M6','PL01',to\_date('2015-01-01','yyyy-mm-dd'),to\_date('2015-12-31','yyyy-mm-dd'));

Insert into Enrollment(MEMBER\_ID,PLAN\_ID,ENROLLMENT\_START\_DATE,ENROLLMENT\_END\_DATE) values('M6','PL03',to\_date('2016-01-01','yyyy-mm-dd'),to\_date('2016-12-31','yyyy-mm-dd'));

***INSERT QUERIES FOR DEPENDENT:***

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M3','D01','Shakti Kapoor',to\_date('1955-02-27','yyyy-mm-dd'),63,'Husband');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M1','D02','Joseph',to\_date('1986-11-02','yyyy-mm-dd'),27,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M13','D03','Felicia',to\_date('1965-07-25','yyyy-mm-dd'),51,'Wife');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M15','D05','Honey Singh',to\_date('1959-02-01','yyyy-mm-dd'),57,'Sister');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M3','D06','Kamal R.Khan',to\_date('1988-11-27','yyyy-mm-dd'),26,'Son');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M2','D07','J.Kaur',to\_date('1952-04-21','yyyy-mm-dd'),64,'Mother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M2','D08','Diljit',to\_date('1984-02-27','yyyy-mm-dd'),32,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M4','D09','K.Singh',to\_date('1960-07-25','yyyy-mm-dd'),56,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M5','D10','Honey Singh',to\_date('1988-02-01','yyyy-mm-dd'),28,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M8','D11','Katrina',to\_date('1980-11-27','yyyy-mm-dd'),36,'Sister');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M9','D12','W.Smith',to\_date('1955-02-27','yyyy-mm-dd'),61,'Mother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M10','D13','Matt Damon',to\_date('1955-02-27','yyyy-mm-dd'),61,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M10','D14','Scarlet',to\_date('1955-07-25','yyyy-mm-dd'),61,'Mother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M9','D15','Jason Statham',to\_date('1954-02-01','yyyy-mm-dd'),62,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M8','D16','Bryan fury',to\_date('1954-11-27','yyyy-mm-dd'),62,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M9','D17','Jessica Biel',to\_date('1992-02-27','yyyy-mm-dd'),24,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M1','D18','Startocaster',to\_date('1954-02-27','yyyy-mm-dd'),62,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M4','D19','Sheena Cole',to\_date('1956-07-25','yyyy-mm-dd'),60,'Mother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M6','D20','Blake Hanks',to\_date('1986-02-01','yyyy-mm-dd'),30,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M8','D21','Dexter',to\_date('1992-11-27','yyyy-mm-dd'),24,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M12','D22','Sonam Gupta',to\_date('1955-02-27','yyyy-mm-dd'),61,'Mother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M15','D23','Damien jameson',to\_date('1984-02-27','yyyy-mm-dd'),30,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M2','D24','Babbu Mann',to\_date('1960-07-25','yyyy-mm-dd'),58,'Father');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M4','D25','Johnny Walker',to\_date('1988-02-01','yyyy-mm-dd'),28,'Brother');

Insert into Dependent(member\_ID,DEPENDENT\_ID,Dependent\_Name,DEPENDENT\_DOB,age,RELATIONSHIP) values('M4','D26','John Label',to\_date('1980-11-27','yyyy-mm-dd'),36,'Sister');

***INSERT QUERIES FOR COVERAGE:***

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL01’,’PS100’,'33019','Georgia');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL02’,’PS100’,'33019','Georgia');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL03’,’PS100’,'33019','Georgia');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL04’,’PS100’,'122001','California');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL05’,’PS100’,'122002','South Carolina');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL01’,’PS200’,'30304','New York');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL02’,’PS200’,'95500','Florida');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL03’,’PS200’,'30304','New York');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL04’,’PS200’,'95500','Florida');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL01’,’PS300’,'80324','Ohio');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL02’,’PS300’,'75900','Texas');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL03’,’PS300’,'33919','Arizona');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL04’,’PS300’,'129001','South Carolina');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL05’,’PS300’,'125002','California');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL01’,’PS400’,'102001',’New Jersey');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL02’,’PS400’,'102001',’New Jersey');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL03’,’PS400’,'75900','Texas');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL04’,’PS400’,'75900','Texas');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL01’,’PS500’,'33919','Arizona');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL03’,’PS500’,'33919','Arizona');

Insert into coverage(PLAN\_ID,PS\_ID,COVERAGE\_AREA\_CODE,COVERAGE\_AREA\_NAME) values(‘PL05’,’PS500’,'33919','Arizona');

***INSERT QUERIES FOR MEMBERS:***

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M1','John','Hopkins','M','508 Main Street', 'Atlanta', 'Georgia',to\_date('1995-07-01','yyyy-mm-dd'),21,'SS1234',5643278901,'PS300').

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M2','Arshdeep','Kapoor','M','517 Back Street','Cleveland','Ohio',to\_date('1992-08-01','yyyy-mm-dd'),24,'SS1000',5000789001,'PS400');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M3','Shobhit','Gupta','F','Grand Street','Las Vegas','California',to\_date('1954-02-28','yyyy-mm-dd'),62,'SS0420',9811111111,'PS200');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M4','Ramandeep','Singh','M','80 Baker Street','London','South Carolina',to\_date('1982-02-07','yyyy-mm-dd'),34,'SS0007',9650263688,'PS300');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M5','Adarsh','KP','F','78 Pidemont Street','Miami','Florida',to\_date('1984-02-28','yyyy-mm-dd'),32,'SS0786',9891111111,'PS100');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M6','Tom','Hanks','M','12 Hacker Street','New York City','New York',to\_date('1955-06-28','yyyy-mm-dd'),61,'SS0001',892111111,'PS500');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M7','Michael','Cera','M','89 New Street','Orlando','Florida',to\_date('1985-01-28','yyyy-mm-dd'),31,'SS0002',1891111111,'PS200');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M8','Seth','Rogen','M','45 Old Street','Atlanta', 'Georgia',to\_date('1992-07-11','yyyy-mm-dd'),24'SS0003',239111111,'PS300');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M9','James','Franco','M','48 Peachtree','Cleveland', 'Ohio',to\_date('1984-06-06','yyyy-mm-dd'),32,'SS0004',6691111111,'PS500');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M10','Sarah','Silverman','F','46 Dead Street','Miami','Florida',to\_date('1985-08-29','yyyy-mm-dd'),31,'SS0005',9891199111,'PS100');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M11','Jason','Segel','M','89 Great Street','Pheonix','Arizona',to\_date('1964-05-28','yyyy-mm-dd'),52,'SS0006',9891111999,'PS200');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M12','Paul','Rudd','M','56 Grant Road','London','South Carolina',to\_date('1994-04-16','yyyy-mm-dd'),22,'SS0008',9891111888,'PS400');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M13','Vince','Vaughan','M','43 Joker Street','Houston','Texas',to\_date('1962-03-28','yyyy-mm-dd'),54,'SS0009',9891111786,'PS200');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M14','Michael','Vaughan','M','56 Super Street','Houston','Texas',to\_date('1984-02-10','yyyy-mm-dd'),32,'SS0010',9891123411,'PS500');

Insert into Members(Member\_ID,First\_Name,Last\_Name,GENDER,STREET,CITY,STATE,DATE\_OF\_BIRTH,Age,SSN,PHONE\_NUMBER,PS\_ID)values('M15','Jenna','Jameson','F','67 Normal Street','New Jersey','New Jersey',to\_date('1959-02-16','yyyy-mm-dd'),57,'SS0011',9891111231,'PS200');

***INSERT QUERIES FOR PLAN:***

Insert into Plan(Plan\_ID,PLAN\_NAME,PLAN\_STATUS) values('PL01','P1\_Advantage','Active');

Insert into Plan(Plan\_ID,PLAN\_NAME,PLAN\_STATUS) values('PL02','Smart\_Health','Active');

Insert into Plan(Plan\_ID,PLAN\_NAME,PLAN\_STATUS) values('PL03','Medicare\_Plus','Inactive');

Insert into Plan(Plan\_ID,PLAN\_NAME,PLAN\_STATUS) values('PL04','Delta\_Health','Active');

Insert into Plan(Plan\_ID,PLAN\_NAME,PLAN\_STATUS) values('PL05','P2\_Advantage','Active');

***INSERT QUERIES FOR CLAIMS:***

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL01','Electronic',to\_date('2015-01-28','yyyy-mm-dd'),to\_date('2015-03-10','yyyy-mm-dd'),400,'Pending', 'M1', 'PR01');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL02','Electronic',to\_date('2015-02-27','yyyy-mm-dd'),to\_date('2015-03-10','yyyy-mm-dd'),600,'Adjudicated', 'M2', 'PR02');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL03','Paper',to\_date('2015-03-26','yyyy-mm-dd'),to\_date('2015-04-11','yyyy-mm-dd'),1600,'Adjudicated', 'M3', 'PR03');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL04','Electronic',to\_date('2016-01-16','yyyy-mm-dd'),to\_date('2016-05-10','yyyy-mm-dd'),800,'Adjudicated', 'M3', 'PR03');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL05','Electronic',to\_date('2016-05-26','yyyy-mm-dd'),to\_date('2016-06-10','yyyy-mm-dd'),600,'Adjudicated', 'M3', 'PR03');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL06','Electronic',to\_date('2016-06-23','yyyy-mm-dd'),to\_date('2016-07-18','yyyy-mm-dd'),700,'Adjudicated', 'M6', 'PR08');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL07','Paper',to\_date('2016-08-18','yyyy-mm-dd'),to\_date('2016-09-10','yyyy-mm-dd'),800,'Adjudicated', 'M6', 'PR08');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL08', 'Electronic',to\_date('2015-07-22','yyyy-mm-dd'),to\_date('2015-09-18','yyyy-mm-dd'),700,'In Progress', 'M7', 'PR05');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL09','Paper',to\_date('2015-08-21','yyyy-mm-dd'),to\_date('2016-09-10','yyyy-mm-dd'),800,'Denied', 'M8', 'PR01');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL10', 'Electronic',to\_date('2016-11-08','yyyy-mm-dd'),to\_date('2016-11-29','yyyy-mm-dd'),800,'In Progress', 'M12', 'PR04');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL11','Electronic',to\_date('2015-12-09','yyyy-mm-dd'),to\_date('2016-07-18','yyyy-mm-dd'),700,'Adjudicated', 'M13', 'PR09');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL12','Electronic',to\_date('2015-01-10','yyyy-mm-dd'),to\_date('2015-05-10','yyyy-mm-dd'),800,'Adjudicated', 'M13', 'PR09');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL13','Electronic',to\_date('2016-02-11','yyyy-mm-dd'),to\_date('2016-07-18','yyyy-mm-dd'),700,'Denied', 'M12', 'PR04');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL14', 'Electronic',to\_date('2015-03-12','yyyy-mm-dd'),to\_date('2015-05-10','yyyy-mm-dd'),800,'Adjudicated', 'M10', 'PR05');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL15','Electronic',to\_date('2015-05-07','yyyy-mm-dd'),to\_date('2016-07-18','yyyy-mm-dd'),700,'Denied', 'M8', 'PR01');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL16','Paper',to\_date('2015-06-06','yyyy-mm-dd'),to\_date('2015-09-10','yyyy-mm-dd'),800,'Denied', 'M8', 'PR01');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL17','Electronic',to\_date('2015-04-15','yyyy-mm-dd'),to\_date('2015-05-10','yyyy-mm-dd'),800,'In Progress', 'M9', 'PR02');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL18','Electronic',to\_date('2016-01-16','yyyy-mm-dd'),to\_date('2016-07-18','yyyy-mm-dd'),1700,'Adjudicated', 'M15', 'PR10');

Insert into Claims(Claim\_ID,CLAIM\_TYPE,CLAIM\_DATE,CLAIM\_SERVICE\_DATE,CLAIM\_AMOUNT,CLAIM\_STATUS,Member\_ID,Provider\_ID) values('CL19', 'Electronic',to\_date('2016-05-28','yyyy-mm-dd'),to\_date('2016-09-10','yyyy-mm-dd'),800,'Adjudicated', 'M15', 'PR10');

***INSERT QUERIES FOR MEDICAL HISTORY:***

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M1','PR01', to\_date('2015-01-28','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M2','PR02', to\_date('2015-02-27','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M3','PR03', to\_date('2015-03-26','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M3','PR03', to\_date('2016-01-16','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M3','PR03', to\_date('2016-05-26','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M4','PR04', to\_date('2014-04-25','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M5','PR05', to\_date('2015-05-24','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M6','PR08', to\_date('2016-06-23','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M6','PR08', to\_date('2016-08-18','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M7','PR05', to\_date('2015-07-22','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M8','PR01', to\_date('2015-08-21','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M9','PR02', to\_date('2016-09-20','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M10','PR05', to\_date('2015-10-18','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M12','PR04', to\_date('2016-11-08','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M13','PR09', to\_date('2015-12-09','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M13','PR09', to\_date('2015-01-10','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID,VISIT\_DATE) values('M12','PR04', to\_date('2016-02-11','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M10','PR05', to\_date('2015-03-12','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M9','PR02', to\_date('2015-04-15','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M8','PR01', to\_date('2015-05-07','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M8','PR01', to\_date('2015-06-06','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M8','PR01', to\_date('2016-07-08','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M7','PR05', to\_date('2016-02-16','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M15','PR10', to\_date('2016-01-16','yyyy-mm-dd'));

Insert into Medical\_History(MEMBER\_ID,PROVIDER\_ID, VISIT\_DATE) values('M15','PR10', to\_date('2016-05-28','yyyy-mm-dd'));

***INSERT QUERIES FOR PROVIDER:***

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR01','Georgia', 'Mayo Clinic','5714982636');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR02','Ohio','Cleveland Clinic','5714982637');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR03','California','MIT General Hospital','5714982638');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR04','South Carolina', 'Johns Hopkins Hospital','5714982639');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR05','Florida','UCLA medical center','5714982635');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR06','Arizona','New York university hospital','5714982634');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR07','Las Vegas', 'UCSF Medical center','5714982633');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR08','New York', 'Northwestern Medical Center','5714982632');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR09','Texas', 'Northwestern Medical Center','5714982631');

Insert into Provider(PROVIDER\_ID,PROVIDER\_ADDRESS,PROVIDER\_NAME,PROVIDER\_PHONE\_NUMBER) values('PR10','New Jersey', 'Northwestern Medical Center','5714982630');

***INSERT QUERIES FOR PLAN SPONSOR:***

Insert into Plan\_Sponsor(PS\_ID,PS\_NAME,PS\_STATUS) values('PS100','Max Hospital','Active');

Insert into Plan\_Sponsor(PS\_ID,PS\_NAME,PS\_STATUS) values('PS200','Anathema','Inactive');

Insert into Plan\_Sponsor(PS\_ID,PS\_NAME,PS\_STATUS) values('PS300','Acivilate','Active');

Insert into Plan\_Sponsor(PS\_ID,PS\_NAME,PS\_STATUS) values('PS400','Anthem','Inactive');

Insert into Plan\_Sponsor(PS\_ID,PS\_NAME,PS\_STATUS) values('PS500','TQ','Active');

***SPECIAL QUERIES:***

**Creating a view for claim data:**

CREATE OR REPLACE VIEW Claim\_Data AS

SELECT m.Member\_ID,m.First\_Name, m.Last\_Name,

m.PS\_ID AS "Plan Sponsor",c.Claim\_ID,c.Claim\_Type,

c.Claim\_Date AS "Visited Date", c.Claim\_Service\_Date AS "Claim Date",

c.Claim\_Amount, c.Claim\_Status,p.Provider\_Name from Members m, Claims c, Provider P

where m.Member\_ID = c.Member\_ID AND c.Provider\_ID = p.Provider\_ID;

**View for Plan history:**

CREATE OR REPLACE VIEW PLAN\_HISTORY AS

SELECT m.Member\_ID, m.First\_Name, m.Last\_Name, m.Date\_Of\_Birth,

ps.PS\_Name, p.Plan\_ID, p.Plan\_Name,e.Enrollment\_Start\_Date,

e.Enrollment\_End\_Date

from Members m, Plan p, Plan\_Sponsor ps, ENROLLMENT e

where m.PS\_ID = ps.PS\_ID AND

m.MEMBER\_ID = e.MEMBER\_ID AND

e.PLAN\_ID = p.PLAN\_ID;

**Query to retrieve sum of claim amount for different age groups:**

Select sum(c.Claim\_Amount) AS "Claim Amount",

Case when m.age<=30 then '<30'

when m.age<=50 then '30-50'

ELSE 'Old'

End AS "AGE Group" from members m, claims c

where m.Member\_ID = c.Member\_ID

AND c.CLAIM\_STATUS = 'Adjudicated' group by

Case when m.age<=30 then '<30' when m.age<=50 then '30-50' ELSE 'Old' End;

**Additional information that facilitates our understanding about the project:**

By estimating the overall risk of health care and health system expenses, among a targeted group, an insurer can develop a routine finance structure, such as a monthly premium or payroll tax, to ensure that money is available to pay for the health care benefits specified in the insurance agreement. The insurer can try to minimize the money which is spent by reimbursing the claims.

### *CHALLENGES FACED:*

### Collecting Data: Data availability deals with the issues associated with accessing data in public and private setup which by large is influenced by the institutional policy differences.

### Accuracy of Data: A data quality/accuracy review step as part of the design review step in an overall development project.

### Integration Data: Establishing standard load and export interfaces for systems that provide data and take it on board on a regular basis.

### Backup and recovery: The problem of keeping a transaction atomic: successful or failed. What if some of the intermediate steps failed? Log of database activity: use the log to undo a failed transaction. More problems: when to write the log, failure of the recovery system executing the log.

### *LESSONS LEARNT:*

### When designing a data warehouse, it’s important to consider the business and design factors associated with the project.

### Get Buy-in from Business and Technical Groups - Get the approval from both the top-level executives and the business users—the last thing you want to do is build a data warehouse that doesn’t meet your users’ needs.

### Maintain Data Integrity - Minimize data replication in the table design and data inconsistency by vetting source data. Poor data quality is one of the biggest hurdles

### Provide User-Friendly Interfaces - Strive for user-friendly interfaces because a data warehouse without users is a failure, and a BI system that’s too complicated to learn and incorporate into everyday use is a disaster.

### Reduce Operational Costs - It’s important to make your data warehouse environment easy and cost-effective to support and maintain. Design implementation costs can quickly get out of control.

### Make Your Data Warehouse Scalable - Your business is going to change over time, so you need to make sure your data warehouse/BI environment can, too.

### Comply with Internal and External Standards - Having an enterprise overview of how and where data is used makes figuring out if you’re in compliance much easier. Compliance is another instance in which MDM becomes a “must-have” component in your organization.

1. **Data Warehouse Design Tips** – Don’t confuse measures with context. Measurements (measures) are usually numeric, can be aggregated, and are stored in fact tables, whereas context is descriptive and open-ended. Divide the context into logical groupings such as customers, store locations, and time, and store them as dimensions.