3.1

In analyzing the cross reference table and the data dictionary of the Medical Clinic Wellness Group we have found a list of important entities within the clinic. Some of the entities identified are the patients, medical personnel, and administrative staff. Furthermore, within the clinic we determined that there are many moving parts within the day to day operations of the clinic itself, this will have to be its own entity within.

In the creation of entities come with their own attributes. The attributes provide data based on a single fact of the entity. For example the entity “patient” will have some of the attributes “patientLastName”, “patientFirstName”, “PatientDOB.” As stated all these attributes fall under the single entity of “patient”. With that we have created the following list of entities:

* Patient
* ProfesionalStaff
* Non-professionalStaff
* Operations
* Insurance
* Bills
* Treatment
* Schedule

**Schedule**

The Schedule entity represents both Daily Master and Weekly Coverage Schedules, which are permanently edited by Administrator.

Potential attributes (Weekly Coverage) :staffID, staffWorkingTimeMonday, staffWorkingTimeTuesday, staffWorkingTimeWednesday, staffWorkingTimeThursday, staffWorkingTimeFriday, staffWorkingTimeSaturday

For Weekly Coverage staffID is the primary key here, so every working time is defined for specific staff members. It has no unique attributes, so it is going to be just an output screen, which uses appointmentID, which can give access for all other data, such as staffName, staffNumber etc.

**Patient**

Potential attributes of a patient are:

patientResponsibility, patientAge, patientAllergies, patientCheckIn, patientCheckOut, patientDOB, patientFirstName, patientID, patientLastName, patientName, patientPhoneNumber, patientPostalCode, patientCreditCardNumber, patientsPhoneNumber, patientStreet, patientType, patientSocialSecurityNumber, patientTaxIDNumber

**Treatment:**

Prescription, diagnostic tests,

**Operations**

Possible attributes of Operations include:

Date, medicalRecordNumber, patientID, patientFirstName, patientLastName, patientDOB, operationPerformed, surgeon, attendingNurse, notes, roomID#, sexOfNewborn, weightOfNewborn, typeOfDelivery, midwife, followUpAppointments, height, IVsites, painLevel, patientAllergies, pulseRate, reasonForStay, recoveryPlan, respirationRate, timeIn, timeOut, weight

We can create a composite attribute patientName using patientFirstName and patientLastName. Calculated or ephemeral data include date, weightOfNewborn, height, painLevel, pulseRate, respirationRate.

We can exclude patientFirstName, patientLastName, and patientDOB since they are attributes under the Patient entity.

The attributes for the Operations entity are Date, medicalRecordNumber, patientID, patientFirstName, patientLastName, patientDOB, operationPerformed, surgeon, attendingNurse, notes, roomID#, sexOfNewborn, weightOfNewborn, typeOfDelivery, midwife, followUpAppointments, height, IVsites, painLevel, patientAllergies, pulseRate, reasonForStay, recoveryPlan, respirationRate, timeIn, timeOut, weight. Medical Record Number is the key in this entity since it uniquely identifies an operation and/or birth.

**Insurance**

amountPaid, amountDue, patientFirstName, patientLastName, sumInsured, policyNumber, purchaseDate, policyNumber, physiciansFaxNumber, physicianOrderingTest, physicianSignature, physicianStamp, primaryPhysician, patientPhoneNumber, patientPostalCode, patientsCreditcardnumber, patientsPhoneNumber, patientStreet, physiciansFaxNumber, physicianSignature, physicianStamp, primaryPhysician, taxIdentificationNumber(SSN).

**Bill**

billID#, description, statementDate, amountPaid, amountDue, dueDate, dueNow, patientsCreditcardnumber, expirationDate, visa, mastercard, otherCard, provider, case, description, description/note, charges, credit, cvsCode, totalOutstanding, estimatedInsuranceResponsibility, patientResponsibility