

Project Part 2

1. Strong Entities

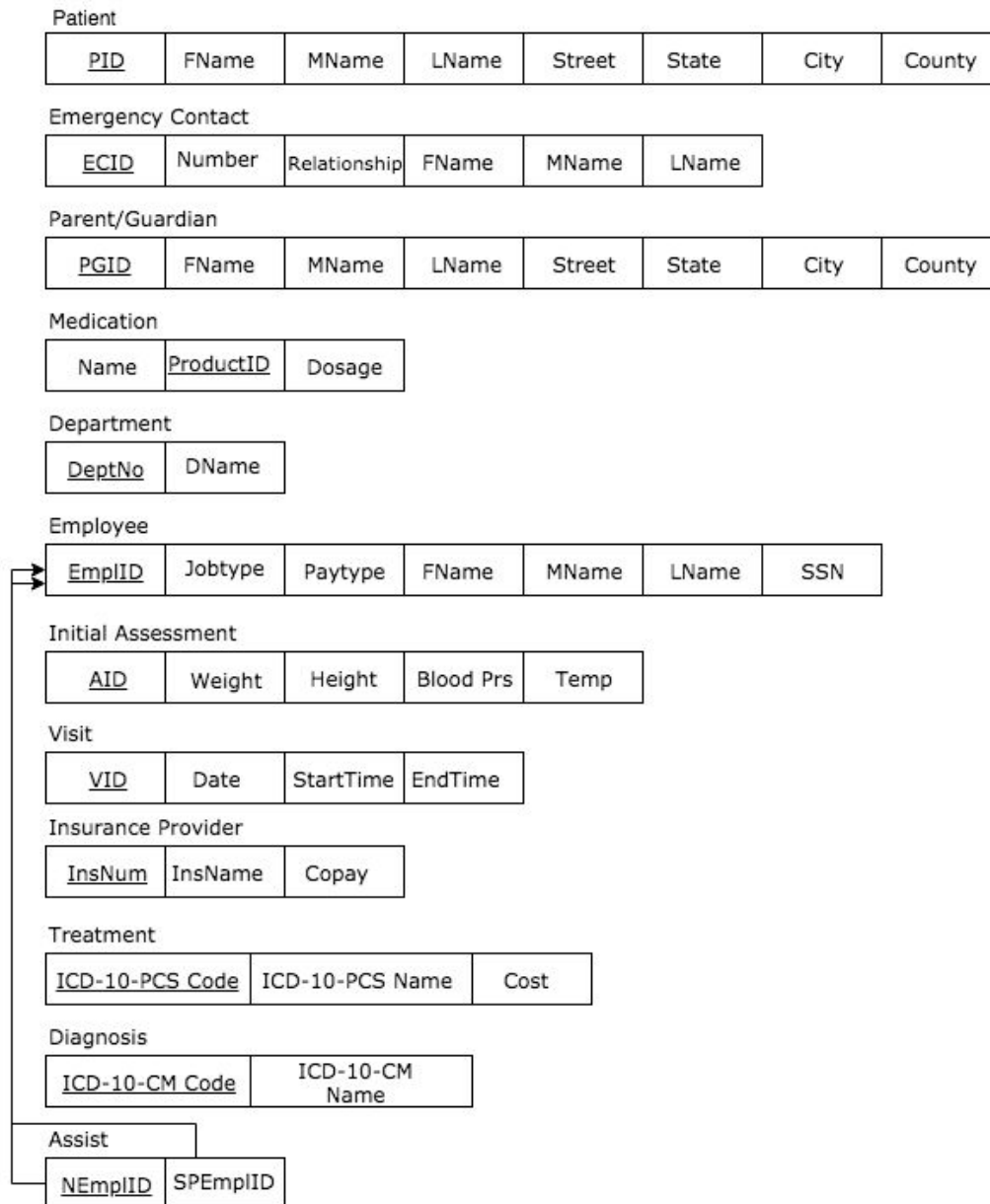
Patient							
<u>PID</u>	FName	MName	LName	Street	State	City	County
Emergency Contact							
<u>ECID</u>	Number	Relationship	FName	MName	LName		
Parent/Guardian							
<u>PGID</u>	FName	MName	LName	Street	State	City	County
Medication							
Name	<u>ProductID</u>	Dosage					
Department							
<u>DeptNo</u>	DName						
Employee							
<u>EmplID</u>	Jobtype	Paytype	FName	MName	LName	SSN	
Initial Assessment							
<u>AID</u>	Weight	Height	Blood Prs	Temp			
Visit							
<u>VID</u>	Date	StartTime	EndTime				
Insurance Provider							
<u>InsNum</u>	InsName	Copay					
Treatment							
<u>ICD-10-PCS Code</u>	ICD-10-PCS Name	Cost					
Diagnosis							
<u>ICD-10-CM Code</u>	ICD-10-CM Name						

Notes:

- Each patient has a unique patient ID.
- Each emergency contact has a unique emergency contact ID
- Each parent/guardian has a unique parent/guardian ID
- Each medication has a unique project ID
- Each department has a unique department number
- Each employee has a unique employee ID
- Each initial assessment has a unique assessment ID
- Each visit has a unique visit ID
- Each insurance provider has a unique insurance number
- Each treatment has a unique ICD-10-PCS-Code
- Each diagnosis has a unique ICD-10-PCS-Code

2. There are no weak entities; no changes from step 1

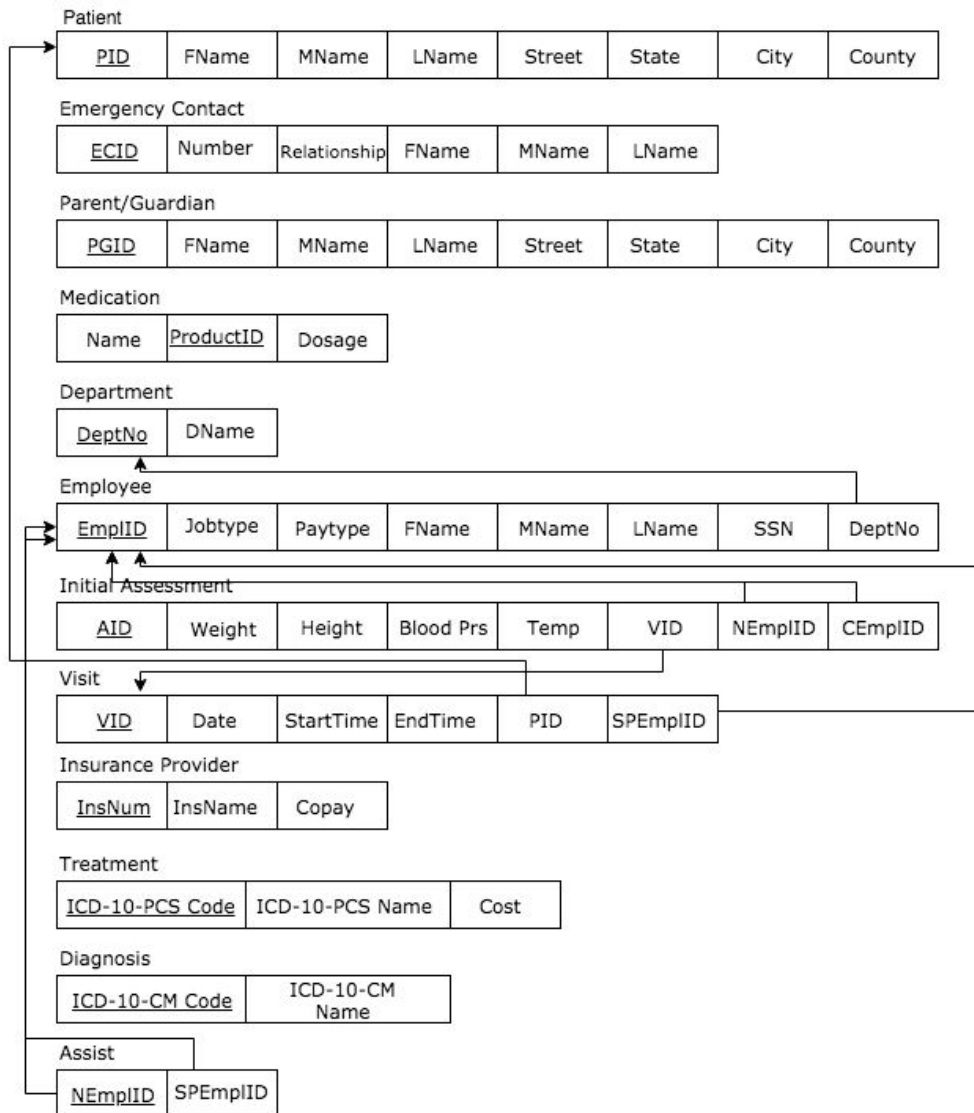
3. 1:1 relationships



Notes:

- Nurse assist zero to one service provider; service providers can be assisted by zero to one nurse
- Assist has one primary key NEmpID
- Assist has foreign keys "NEmpID" towards EmpID for Employee, "SEmpID" for Employee

4. 1:Many relationships

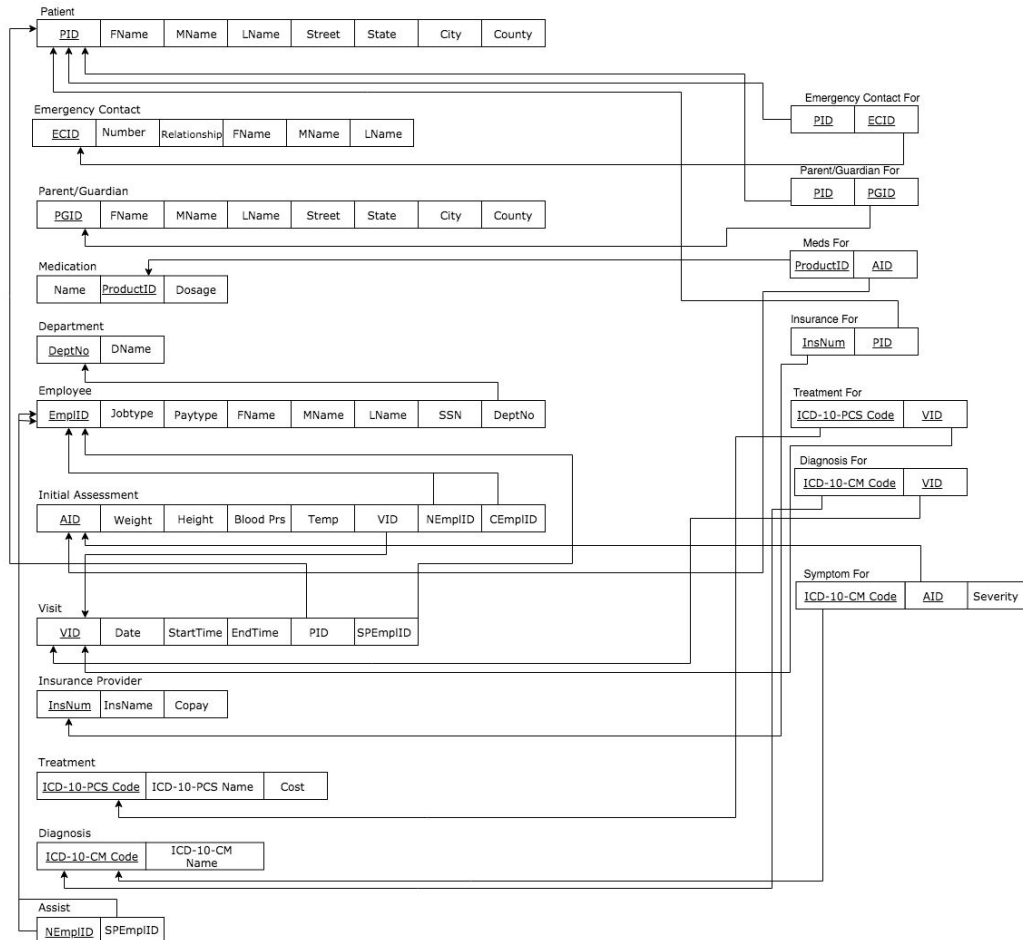


Notes

- Patient can make 1 to many visits; visits must have 1 and only 1 patient
 - Visit has foreign key "PID" for patient
- Visit assesses 1 to many initial assessments; initial assessment is assessed by 1 and only 1 visit
 - Initial assessment has foreign key "VID" for visit
- Visit is logged by 1 and only 1 service provider; service provider can log 0 to many initial assessments
 - Visit has foreign key "SPEmplID" for Employee
- Initial assessment is taken by 1 and only 1 nurse; nurse can take 0 to many initial assessments
 - Initial assessment has foreign key "NEmplID" for employee

- Initial assessment is created by 1 and only 1 intake clerk; intake clerk can create 0 to many initial assessments
 - Initial assessment has foreign key "CEmplID" for employee
- Employee can work in one and only one department; department can have one to many employees within
 - Employee has a foreign key "DeptNo" for department

5. Many:Many relationships

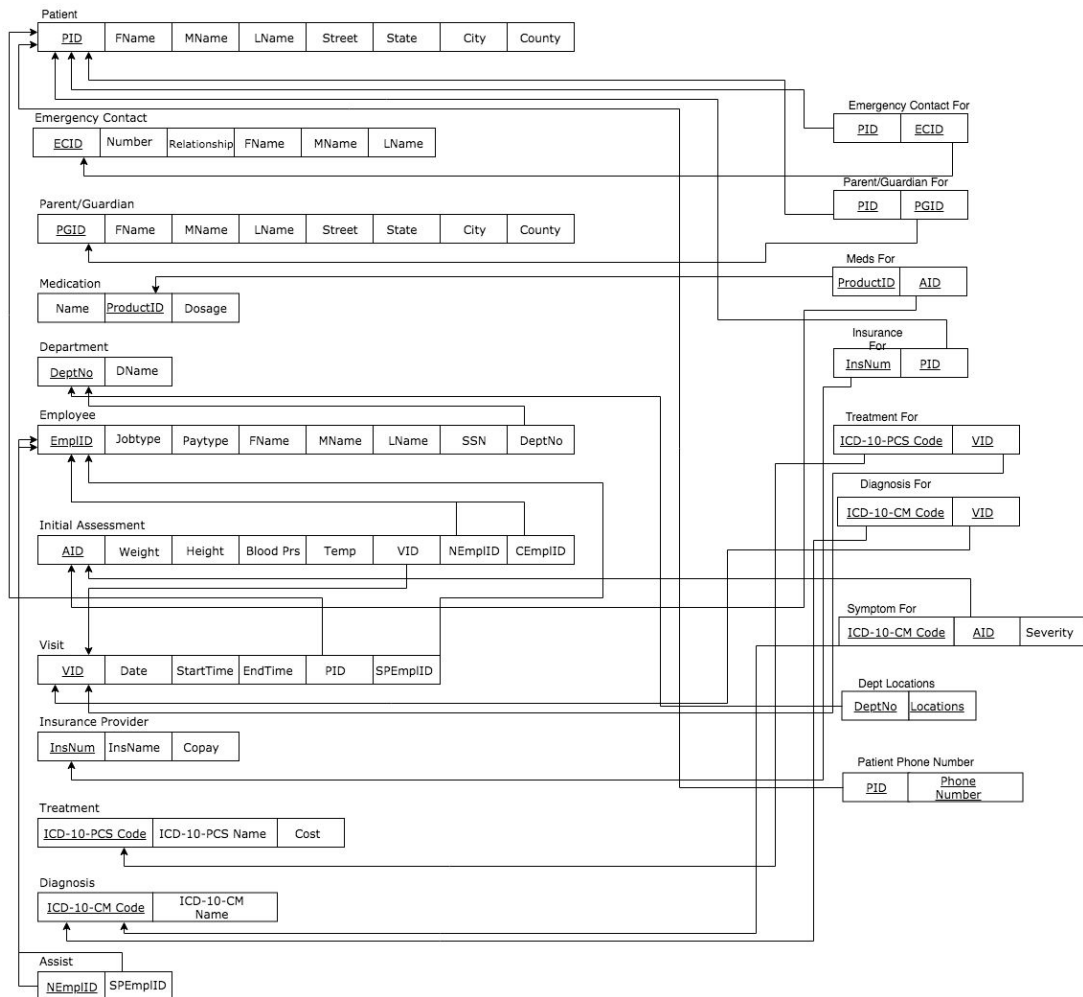


Notes

- A patient must have 1 to many emergency contacts; an emergency contact must be listed for 1 to many patients.
 - Emergency Contact For has foreign keys "PID" for patient and "ECID" for emergency contact.
- A patient can have 0 to many parent/guardians; parent/guardian can have 1 to many patients under 18.
 - Parent/guardian for has a foreign keys "PGID" for parent/guardian and "PID" for patient

- There can be 0 to many medications for an initial assessment; there can be 0 to many initial assessments with medication.
 - Meds For has foreign keys "ProductID" for medication and "AID" to assessment.
- Patients and insurance Patients are insured by 0 to many insurance providers; insurance providers can insure 0 to many patients
 - Insurance For has foreign keys "InsNum" for Insurance Provider, and "PID" for patient
- A visit can have 0 to many treatments and treatment can 0 to many visits.
 - Treatment For has foreign keys "ICD-10-PCS Code" and "VID"
- Initial assessment assess 0 to many symptoms at a diagnosis; diagnoses can assess 0 to many symptoms at the initial assessment
 - Symptom For has foreign key "ICD-10-CM Code" for diagnosis and "AID" for assessment
- There can be 0 to many diagnoses for a visit and there must be 1 to many visits with a diagnosis.
 - Diagnosis For has foreign key "ICD-10-CM Code" for Diagnosis and foreign key "VID" for Visit.

6. Multivalued attributes



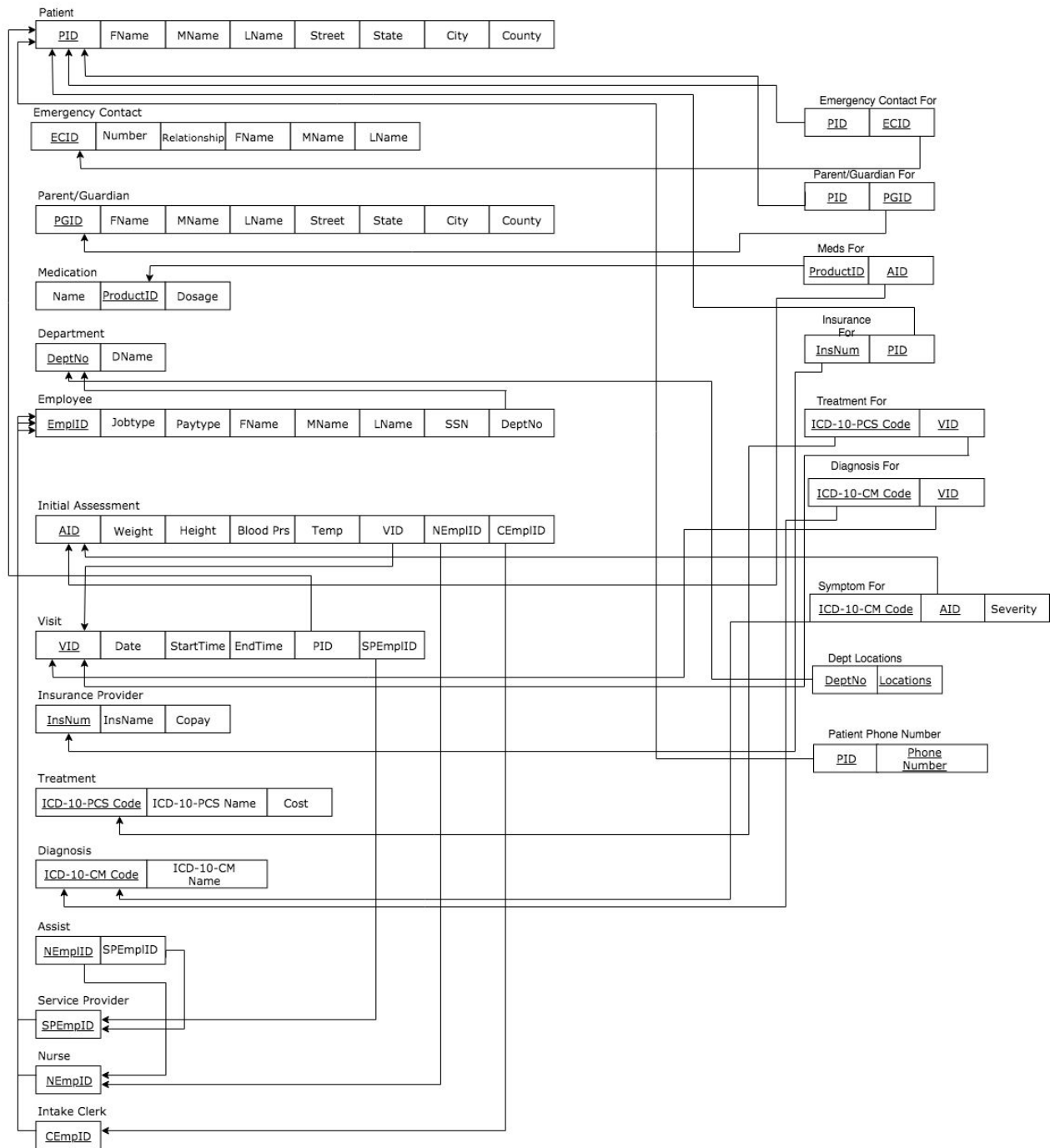
Notes:

- Patient Phone Number has foreign key "PID" for patient
- Department Location has foreign key "DeptNo" for Department
- The Primary key for Dept Locations is "DeptNo" and "Location" combined
- The Primary key for Patient Phone Numbers is "PID" and "Phone Number" combined

7.



8.



Notes:

- Employees have specialization attribute
 - Employees can be either an intake clerk, nurse or service provider.
 - An intake clerk is an employee
 - A nurse is an employee
 - A service provider is an employee

- Service provider has primary key SPEmpID
- Nurse has primary key NEmpID
- Intake Clerk has primary key CEmpID
- SPEmpID, NEmpID and CEmpID are foreign keys to EmpID in Employee