

The Vitals Crew

Prof. Xinda Wang

CS 4347.005: Database Systems

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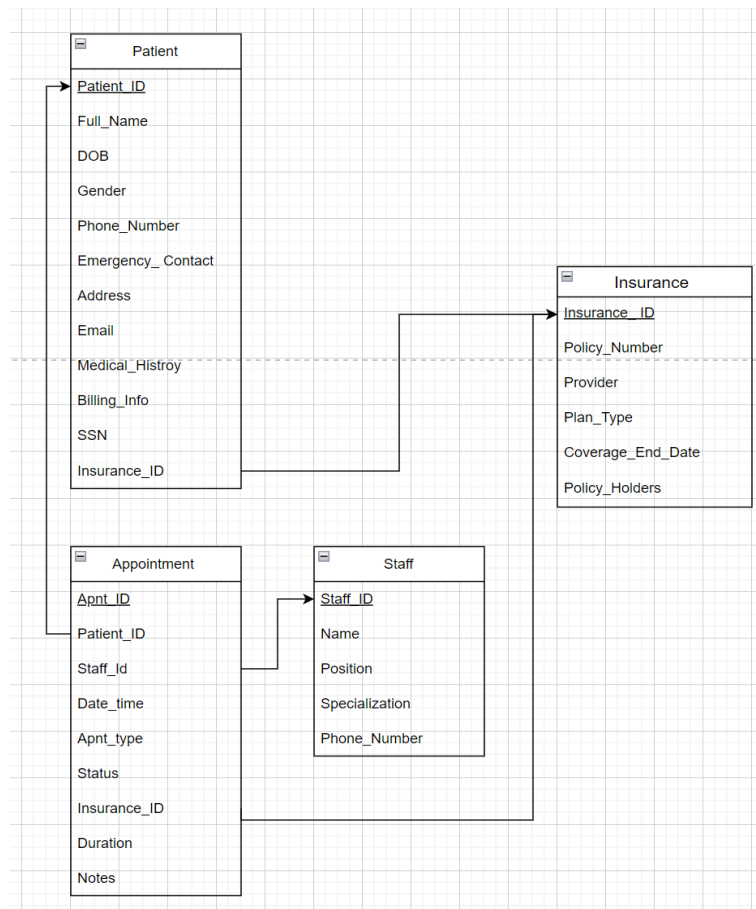
## Phase 3 Project Report

Vitals: Appointments made easier

Members:

- Hana Al-Jaser: hza220000
- Eva Branco: EJB180000
- Om Dalvi: opd200000
- Faizan-Ali Lalani: FBL230000
- Jennah Shahein: JXS220148.

Task A:



Functional Dependencies (FDs):

No decomposition is needed; all relationships are already in BCNF.

Entity	Attributes	Notes
Patient	Patient_ID(PK), SSN(Unique), Full_Name, DOB, Gender, Phone_Number, Emergency_Contact, Address, Email, Medical_History, Billing_Info, Insurance_ID(FK)	Already in BCNF
Insurance	Insurance_ID(PK), Policy_Number(Unique), Provider, Plan_Type, Coverage_End_Date, Policy_Holder	Already in BCNF
Appointments	Apnt_ID(PK), Patient_ID(FK), Date_Time, Apnt_Type, Status, Duration, Insurance_ID(FK), Note, Staff_ID(FK)	Already in BCNF
Staff	Staff_ID(PK), Name, Position, Specialization, Phone_Number	Already in BCNF

All relations have been evaluated for BCNF compliance. Since every non-trivial functional dependency has a candidate key as its determinant, no decomposition was needed. This ensures a robust and normalized schema design that supports efficient querying and maintains data integrity.