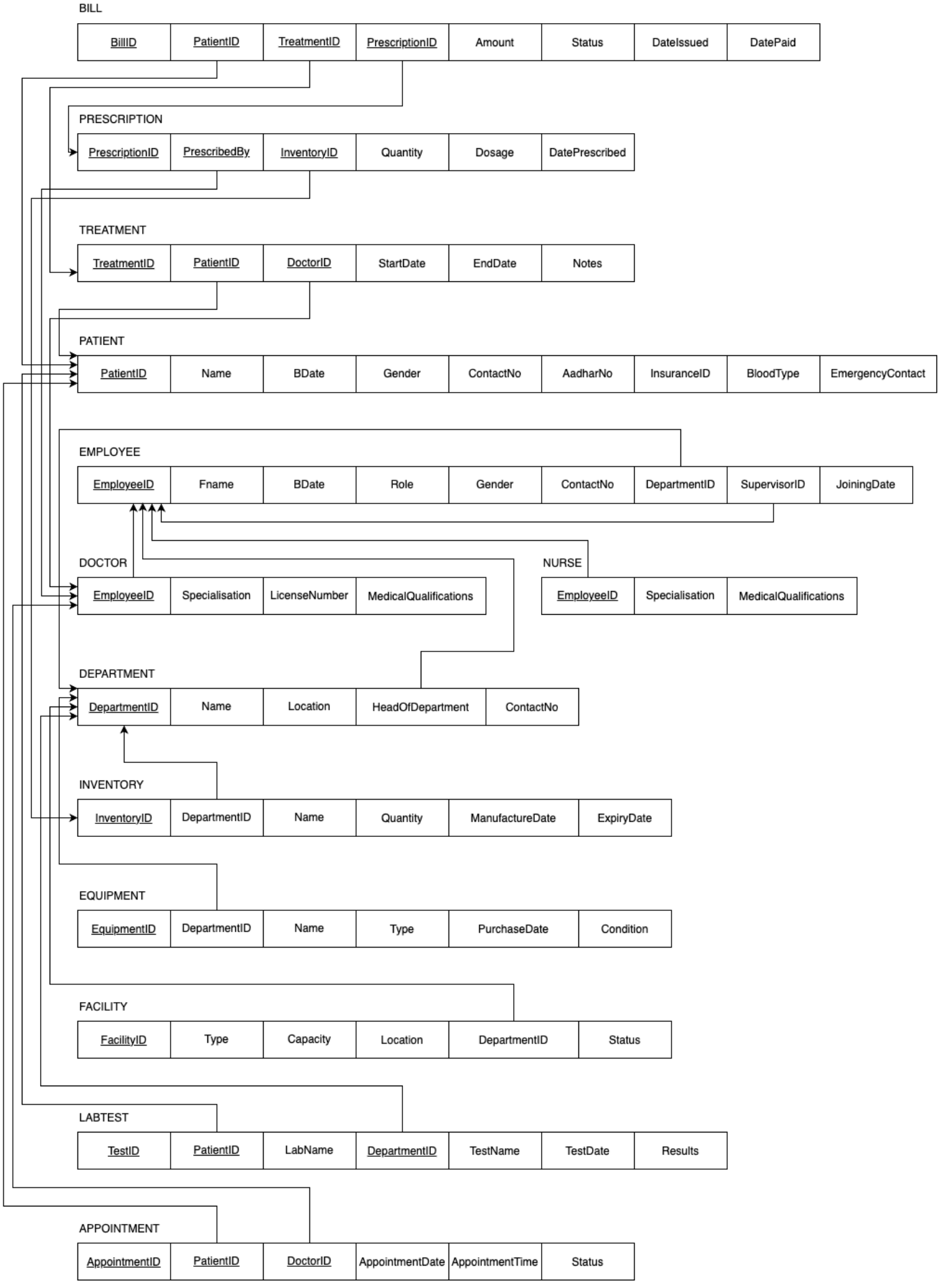
DnA Project Phase 3

Team 46

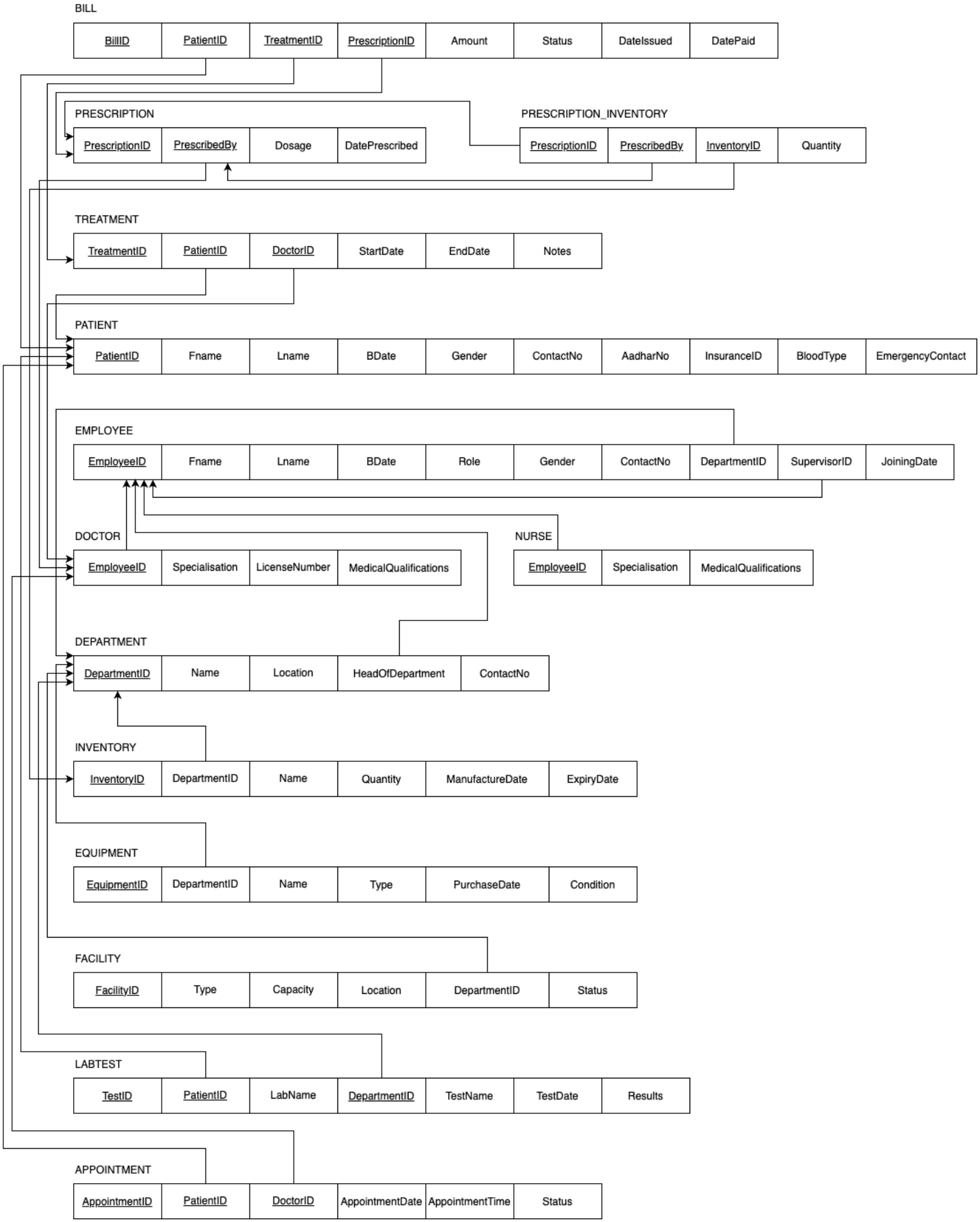
Relational Schema



Changes Made

- For Patient, updated ContactNo to be a single valued attribute.
- Also added Bdate for (date of birth) and adjusted names of attributes as suited.
- Derived attributes such as Age in Patient and Number of Employees in Department were removed.
- All dates were shifted from composite variables to data type of DATE along with appointment time shifted to data type of TIME.
- Names of several attributes were changed so that they made sense in the relational database.
- For Prescription, removed TreatmentID as it was redundant in the relational schema.

Relational Schema with 1NF



Changes Made

- For Prescription, the multi-valued attribute of InventoryID was removed to convert the relational schema into 1NF
- For Employee and Patient, updated Name to Fname and Lname to represent First Name and Last Name respectively.
- A new relation PRESCRIPTION_INVENTORY was added that maps the InventoryID to PrescriptionID along with Quantity.

Relational Schema with 2NF

No Changes Made

- For all weak entities, the composite primary keys have full dependency on the other non prime attributes. Since no non-key attribute is functionally dependent on a part of the primary key. The relation schema holds true for 2NF notation.

Relational Schema with 3NF

No Changes Made

- For all relations, they should not have a nonkey attribute functionally determined by another nonkey attribute (or by a set of nonkey attributes). That is, there should be no transitive dependency of a nonkey attribute on the primary key.
- This is true for our design as there is no transitive relationship.
- The schema also now follows 2NF along with 3NF.