Part B, 2, Normalization

1. Examples of anomalies

Insertion anomalies:

If the surgery is defined and null values are not accepted, a new patient without assigned surgery won’t be able to insert into the database.

Deletion anomalies:

If Jay Patel quit the physician job and deleted him from the database, the Liver Transplant surgery will also be ceased to exist because it’s only assigned to Jay Patel.

Modification anomalies:

If Robert Smith’s address is incorrect and needs to be updated, it needs to be updated for two times or there will be inconsistent data in the database.

1. 3NF

Physician:

Physician Name

Physician Office

Patient:

Patient Name

Patient Address

Appointment Date

Appointment:

Appointment Date

Patient Name

Physician Name

Surgery type

Assume that each physician has an assigned unique office, and each patient have an assigned address and appointment.

3.

House:

Home location

Age of the house

Construction material used

Type of residence

Home layout

Number and types of appliances

last sold transaction id

Owner:

Name

Lease type

lease start date

payment amount

payment date

transaction id

Payment:

Name

Payment type

Payment amount

Payment date

Transaction id