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Databse Systems
HW7

ORTHODONTIC_VISITS

| | | | LaborCosts | SupplyCosts | | | | | | | | |

Doc#	DocName	Office#	TreatmentGiven	OAddress	PName	PAddress	TCost	Treatment#	Patient#	ApptDate	ApptTime	DocDeg

FD1
FD2
FD3
FD4
FD5

OFFICE

FD1

Office#	OAddress	Doc#

PATIENT

FD2

Patient#	PName	PAddress

DOCTOR

FD3

Doc#	DocName	DocDeg

TREATMENT

FD4

Treatment#	TreatmentGiven	LaborCosts	SupplyCosts	Patient#

APPOINTMENT

FD5

App#	AppDate	AppTime	Patient#	Office#	Doc#

1. The form was not in 1NF form because TCost is a composite attribute and 1NF does not allow for this. To fix the problem I took the TCost and divided it into LaborCosts and SupplyCosts.

2. The form was not in 2NF because FD5 did not have a primary key. I made a new primary key called App#, which allows the other attributes to be dependant on App#.

3. The form was not in 3NF because Visit contains data the describes data in another table(TreatmentGiven, TCosts). I fixed this problem by getting rid of Visit and dividing them between the tables TREATMENT and APPOINTMENT. Now the other attributes in these tables depend wholey on the primary key. I had to add a foreign key Patient# to TREARMENT to be able to relate or join the information together when querying data.

4. Patient# would be the primary key for ORTHODONTIC_VISITS because without a Patient their would be no visiting of an Orthodontist. The patient is the the primary concern.

Assumptions
1. I assumed that APPOINTMENT should include App# key for a scheduled appointment tracking.
2. I assumed that Patient# is needed in TREATMENT for relating TREATMENT table with other tables.