

Assignment-

Apply normalization concept for below table and check whether the decomposed tables implement all the function dependencies

VisitNo	VisitDate	PatNo	PatAge	PatCity	PatZip	ProvNo	ProvSpecialty	Diagnosis
V10021	2/13/2021	P1	36	DENVER	80217	D1	INTERNIST	EAR INFECTION
V10022	2/13/2021	P1	36	DENVER	80217	D2	NURSE PRACTITIONER	INFLUENZA
V93030	2/20/2021	P3	17	ENGLEWOOD	80113	D2	NURSE PRACTITIONER	PREGNANCY
V82110	2/18/2021	P2	60	BOULDER	85932	D3	CARDIOLOGIST	MURMUR

PatNo → PatAge

PatZip → PatCity

VisitNo → VisitDate

PatNo → PatZip

ProvNo → ProvSpecialty

VisitNo → PatNo

VisitNo, ProvNo → Diagnosis

Normalization-(2NF)

Visitors table(R1)

<u>Id</u>	PatNo	ProvNo	Visitdate	Diagnosis
V10021	P1	D1	2/13/2021	EAR INFECTION
V10022	P1	D2	2/13/2021	INFLUENZA
V93030	P3	D2	2/20/2021	PREGNANCY
V82110	P2	D3	2/18/2021	MURMUR

Patients table-

<u>Id</u>	Age	City	zipcode
P1	36	DENVER	80217
P2	60	BOULDER	85932
P3	17	ENGLEWOOD	80113

Provisions Table-(R4)

<u>No</u>	Speciality
D1	INTERNIST
D2	NURSE PRACTITIONER
D3	CARDIOLOGIST

3NF-

Patients table(R2)

<u>Id</u>	Age	zipcode
P1	36	80217
P2	60	85932
P3	17	80113

PatientsZipcodeCity table(R3)

<u>zipcode</u>	City
80217	DENVER
85932	BOULDER
80113	ENGLEWOOD

Before Normalization-

VisitNo	VisitDate	PatNo	PatAge	PatCity	PatZip	ProvNo	ProvSpecialty	Diagnosis
V10021	2/13/2021	P1	36	DENVER	80217	D1	INTERNIST	EAR INFECTION
V10022	2/13/2021	P1	36	DENVER	80217	D2	NURSE PRACTITIONER	INFLUENZA
V93030	2/20/2021	P3	17	ENGLEWOOD	80113	D2	NURSE PRACTITIONER	PREGNANCY
V82110	2/18/2021	P2	60	BOULDER	85932	D3	CARDIOLOGIST	MURMUR

After Normalization -

Visitors table(R1)

<u>Id</u>	PatNo	ProvNo	Visitdate	Diagnosis
V10021	P1	D1	2/13/2021	EAR INFECTION
V10022	P1	D2	2/13/2021	INFLUENZA
V93030	P3	D2	2/20/2021	PREGNANCY
V82110	P2	D3	2/18/2021	MURMUR

Patients table(R2)

<u>Id</u>	Age	zipcode
P1	36	80217
P2	60	85932
P3	17	80113

PatientsZipcodeCity table(R3)

<u>zipcode</u>	City
80217	DENVER
85932	BOULDER
80113	ENGLEWOOD

Provisions Table-(R4)

<u>No</u>	Speciality
D1	INTERNIST
D2	NURSE PRACTITIONER
D3	CARDIOLOGIST

FD-s

R1(Visitors table)

VisitNo, ProvNo → Diagnosis

VisitNo → PatNo

VisitNo → VisitDate

Patients table(R2)

PatNo → PatAge

PatNo → PatZip

PatientsZipcodeCity table(R3)

PatZip → PatCity

Provisions Table-(R4)

ProvNo → ProvSpecialty