PROBLEM

1. You should identify insertion, update, and deletion anomalies in the sample rows of the big patient table shown in Table 1. You should identify one example of each type of anomaly. The combination of *VisitNo* and *ProvNo* is the only unique column(s) for the table.

VisitNo	VisitDate	PatNo	PatAge	PatCity	PatZip	ProvNo	ProvSpecialty	Diagnosis
V10021	2/13/2018	P1	36	DENVER	80217	D1	INTERNIST	EAR INFECTION
V10021	2/13/2018	P1	36	DENVER	80217	D2	NURSE PRACTITIONER	INFLUENZA
V93030	2/20/2018	P3	17	ENGLEWOOD	80113	D2	NURSE PRACTITIONER	PREGNANCY
V82110	2/18/2018	P2	60	BOULDER	85932	D3	CARDIOLOGIST	MURMUR

SOLUTION:

insertion anomaly:

--necessary to know two attributes visit and provider because combination of visitNo and provNo makes up the primary key.

update anomaly:

-- if we change ProvSpecialty with ProvNo D2 then two rows must be changed.

Deletion anomaly:

--if we delete d2 provNo we lose visitNo and patNo