

## Quiz 2

### Question : Problem Solving with 3NF (5 Marks)

You are tasked with redesigning the following table to comply with **3NF**:

PatientID	PatientName	DoctorID	DoctorName	Specialty	Hospital	Location
P01	Alice	D01	Dr. Smith	Cardiology	CityMed	New York
P02	Bob	D01	Dr. Smith	Cardiology	CityMed	New York
P03	Carol	D02	Dr. Johnson	Neurology	TownCare	Boston

- Break the table into smaller tables that comply with **3NF**.
  - Explain how the new structure resolves redundancy and anomalies.
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### Question : Detect and Solve Anomalies (5 Marks)

The following table stores information about courses offered at a university:

CourseID	CourseName	Instructor	Department	Room
C101	Math 101	Prof. A	Mathematics	101
C102	Physics 101	Prof. B	Physics	102
C103	Math 101	Prof. A	Mathematics	101

- Part A: Identify one delete anomaly and explain its impact.
- Part B: Normalize the table to eliminate the anomaly and provide the resulting tables.