1) Insertion anomalies: Attempt to add new grade to a student which is not exist or attempt to assign a grate to a tutorial which is not presented. Attempt to add grade for a student from a tutorial or topic from which he already has a grade.

Update anomalies: If we update a tutor which provides a course, we should update it for all entries or update only one which is inconsistent.

Delete anomalies: If we delete some student, we have all his grades on the system which is inconsistent. If we delete some tutor, his ID stays as the grades table, which is also inconsistent. Attributes Date, Topic, Room, Book, TutorID, TutEmail are dependent on UnitID

Attribute Grade depends on StudentIT and UnitID

To make it full dependent we need to divide data into tables

3)

## 2<sup>nd</sup> form

- Study (UnitID, StudentID, Grade)
- Unit (UnitID, Date, Topic, Room, Book, TutorID, TutEmail)

## 3<sup>rd</sup> form

- Study (UnitID, StudentID, Grade)
- Unit ( UnitID, Date, Topic, Room, TutorID )
- Topic (Topic, Book)
- Tutor (TutorID, TutEmail)

4)

Study: UnitID and StudentID are primary keys

Unit: UnitID is a primary key, TutorID is a foreign key

Topic: Topic is a primary key

Tutor: TutorID is a primary key