

# 21 Lecture - CS403

## Important Subjective

### 1. What is normalization?

Normalization is a process of organizing data in a database to reduce data redundancy and improve data integrity.

### What are the common levels of normalization?

The common levels of normalization are First Normal Form (1NF), Second Normal Form (2NF), and Third Normal Form (3NF).

### What is a repeating group in a database?

A repeating group is a group of non-key attributes that are dependent on each other.

### What is a partial dependency?

A partial dependency is an attribute that is dependent on only part of the primary key.

### What is a transitive dependency?

A transitive dependency is an attribute that is dependent on another non-key attribute.

### Why is normalization important?

Normalization is important because it helps to improve data integrity, reduce data redundancy, and make the database more efficient.

### Can a database be over-normalized?

Yes, a database can be over-normalized, which can result in slower performance and more complex database designs.

### What is the difference between First Normal Form (1NF) and Second Normal Form (2NF)?

1NF eliminates repeating groups, while 2NF eliminates partial dependencies.

### What is denormalization?

Denormalization is the process of intentionally introducing redundancy into a database to improve performance.

### What are the benefits of normalization?

The benefits of normalization include improved data integrity, reduced data redundancy, and a more efficient database design.