

# 9 Lecture - CS403

## Important Subjective

1. **What is a relationship in the context of a database?**

Answer: In a database, a relationship is a connection between two or more tables based on their columns.

**What are the different types of relationships in a database?**

Answer: The different types of relationships in a database are one-to-one, one-to-many, and many-to-many.

**What is a one-to-one relationship in a database?**

Answer: A one-to-one relationship is a relationship between two tables where each row in one table is related to one and only one row in the other table.

**What is a one-to-many relationship in a database?**

Answer: A one-to-many relationship is a relationship between two tables where each row in one table can be related to one or more rows in the other table.

**What is a many-to-many relationship in a database?**

Answer: A many-to-many relationship is a relationship between two tables where each row in one table can be related to one or more rows in the other table, and vice versa.

**What is a foreign key in a database?**

Answer: A foreign key is a column or a set of columns in one table that refers to the primary key of another table.

**What is referential integrity in a database?**

Answer: Referential integrity is a feature of a database that ensures that the relationships between tables are maintained by enforcing certain rules, such as preventing the deletion of a row in a table if it is referenced by another row in a different table.

**How do you represent a relationship in an entity-relationship diagram?**

Answer: A relationship in an entity-relationship diagram is represented by a line connecting the related tables, with the cardinality and optionality of the relationship indicated by symbols on the line.

**What is the difference between a strong and weak entity in a database?**

Answer: A strong entity is an entity that has a primary key, while a weak entity is an entity that depends on another entity for its existence and has a partial key.

**What is the purpose of a junction table in a many-to-many relationship?**

Answer: The purpose of a junction table in a many-to-many relationship is to connect the two related tables by storing the primary keys of each table as foreign keys in the junction table.