* In the context of a database, an attribute refers to a characteristic or property that describes an entity. Attributes are the building blocks of database tables, representing the columns in a relational database. Each attribute defines a specific aspect of the entity being modelled.
* **It is important to have a unique identifier for each item (or entity) in a database for several reasons:**

1. **Uniqueness**: A unique identifier ensures that each item in the database can be uniquely identified. This is crucial to avoid data duplication and ensuring data integrity.
2. **Referential Integrity**: Unique identifiers serve as references for establishing relationships between entities in the database. They enable accurate linking of related data across different tables.
3. **Efficient Retrieval**: Unique identifiers facilitate efficient data retrieval by providing a quick and reliable means of accessing specific records within the database.
4. **Data Management**: Unique identifiers simplify data management tasks such as updates, deletions, and modifications by providing a clear reference point for each item.

* **Examples of attributes associated with a "Patient" entity in a hospital database:**

1. Patient ID (Unique identifier/primary key)
2. Name
3. Date of Birth
4. Gender

* **Characteristics that help distinguish one specific book from another:**

1. Title
2. Author

Single-valued attribute vs. multi-valued attribute:

1. **Single-valued attribute**: A single-valued attribute is an attribute that holds a single value for each instance of an entity. For example, in a "Student" entity, the attribute "Age" would typically be single valued because each student has only one age.
2. **Multi-valued attribute**: A multi-valued attribute is an attribute that can hold multiple values for each instance of an entity. For example, in a "Student" entity, the attribute "Phone Numbers" could be multi-valued because a student may have more than one phone number.