**Lesson Summary Databases**

What is table schema?

**A table** schema is a named schema for a set of Query Tables that completely defines the structure of those Query Tables, and ensures that all Query Tables in the set are identically defined.

What is the entity?

**An entity** is something that exists as itself.

What is an attribute?

**Attribute** is an identifying piece of information that serves to define further and expand the primary key.

What is the type of each attribute?

The types of each **attribute** are STRING, NUMERIC, and DATETIME.

**Synonyms**

|  |  |  |
| --- | --- | --- |
| Table | Row | Column |
| Relation | Record | Attribute |

We are ruled table is **one to one, one to many, many to many.**

**Example:**

Relation between student and classroom tables is **one** too **many**.

**MANY** TO **MANY** RELATION

**Example:**

Relation between **Student** and **Course.**

There are **three** major problems:

* Inserting anomaly/problem.
* Updating anomaly/problem.
* Deleting anomaly/problem.

+ What is NORMALIZATION?

**NORMALIZATION** is a technique to organize data into multiple related tables, to minimize data redundancy.

+ **First Normal Form NORMALIZATION is 4:**

* Each column of the table must be single values.
* A column should contain values of the same type.
* Each column/attribute in a table should have a unique name.
* The order in which you store the data does not matter.

What is a primary key?

A **primary key**, also called a primary keyword, is a column in a relational database tablethat's distinctivefor each record.

What is a foreign key?

A **foreign key** is a column or columns of data in one table that refersto the unique data values -- often the primary key data -- in another table.

What is an ERD?

**ERD** stands for entity relationship diagram

+ **Secon Normal Form:**

* Check the following tables and tell if it respect the 1st Normal Form If not, explain which rule it does not respect.
* Nonkey attributes that don’t relationship between primary keys.

+ **Third Normal Form:**

* Check the following tables and tell if it respect the 2nd Normal Form If not, explain which rule it does not respect.
* Nonkey attributes that don’t relationship between columns unext that is transitively dependent.