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Database Management
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Lab 2

2. Super key is a set of columns that uniquely identifies a row.

Candidate key would be a minimal set of columns that uniquely identifies a row.

Primary key is the column you choose to maintain uniqueness in a table at row level.

3. Unlike humans, a computer does not know the difference between “1234” and “abcd”. A data type is classification of the type of data that a variable or object can hold in computer programming. Examples of data types are integer, floating point unit number, character, string, and pointer.

P_Id	Last Name	First Name	Address	City	State
1	Ronaldo	Cristiano	13 Baker Street	NYC	New York
2	Messi	Lionel	14 Fulton Street	NYC	New York

P_Int (int, null)

Last Name (nvarchar (30), null)

First Name (nvarchar (30), null)

Address (nvarchar (50), null)

City (nvarchar (30), null)

State (nvarchar (30), null)

4. The ‘first normal form’ rule sets the fundamental rules for database normalization and relates to a single table within a relational database system.

First normal form rule states that:

- Every column in the table must be unique.
- Separate tables must be created for each set of related data.
- Each table must be identified with a unique column or concatenated columns called the primary key.

First normal form is important because it eliminates repeating groups in the individual tables. It creates a separate table for each set of related data. In addition, it identifies each set of related data with a primary key.

The ‘access rows by content only’ rule states that we can only retrieve rows by their content, the attribute values that exist in each row. So far as user queries are concerned, this implies that there is no order on the rows. It is useful to a DBA in examining situations where it is suspected that the table data is not stored in the proper way.

The “all rows must be unique” rule is that two tuples in a relation (rows in a table) cannot be identical in all column values at once. A relation can be thought of as a set of tuples, and of course a set never contains two identical elements; each tuple of the set must be unique.

The rule reflects certain mathematical assumptions that have important implications for the good behavior of the relational structures in various circumstances. For examples, the rule requires unique rows, simply reflects the mathematical idea that a relation is a set of tuples and a set never contains two identical elements.