Normalization lesson

❖ The benefits of Normalization lessons are they can help us avoid data quality issues, reduce data redundancy, improve data analysis, and enhance data security. It can eliminate errors, inconsistencies, duplicates, or missing values that can affect the accuracy of your data and analysis.

❖ The problem with databases without Normalization is database systems can be inaccurate, slow, and inefficient and they might not produce the data you expect. We use the normalization process to design efficient and functional databases. By normalizing, we store data where it logically and uniquely belongs.

❖ Normal Form:

- First Normal Form
    - Rule 1

      All of Column has a single value.

    - Rule 2
      In one column have only one type of value.
    - Rule 3
      All of the attributes have a unique name.
    - Rule 4
      The value of the row can be in order or not.
- Second Normal Form
    - Rule 1
      The table should already be in 1st Normal Form.
    - Rule 2

      All non-key attributes are dependent on every column that composes the primary key.

- Third Normal Form
    - Rule 1
      The table should already be in 2nd Normal Form.
    - Rule 2
      The table has no transitive dependencies.