



Name: Jairus Galang
Section: Block 2 Schedule: _____

Class number: _____

Date: _____

B. MAIN LESSON

- 1) Activity 2: Content Notes (33 mins) For supplementary reading, students should go through this directory: "documents/FLM/ITE314/Resources/Day8"

NORMALIZATION RULES

Here are the different types of normalization rules:

1. FIRST NORMAL FORM (1NF)

First Normal Form which is more like the Step 1 of the Normalization process. The 1st Normal form expects you to design your table in such a way that it can easily be extended, and it is easier for you to retrieve data from it whenever required. As per the rule of first normal form, an attribute (column) of a table cannot hold multiple values. It should hold only atomic values.

2. SECOND NORMAL FORM (2NF)

To be in second normal form, a relation must be in first normal form and relation must not contain any partial dependency. A relation is in 2NF if it has **No Partial Dependency**, i.e., no non-prime attribute (attributes which are not part of any candidate key) is dependent on any proper subset of any candidate key of the table.

Partial Dependency – If the proper subset of candidate key determines non-prime attribute, it is called partial dependency.

3. THIRD NORMAL FORM (3NF)

Third Normal Form is an upgrade to Second Normal Form. When a table is in the Second Normal Form and has no transitive dependency, then it is in the Third Normal Form.

A **transitive** is a type of functional dependency which happens when it is indirectly formed by two functional dependencies.

First Normal Form

1. It should only have single(atomic) valued attributes/columns.
2. Values stored in a column should be of the same domain
3. All the columns in a table should have unique names.
4. And the order in which data is stored, does not matter.

Second Normal Form

1. It should be in the First Normal form.
2. And, it should not have Partial Dependency.

Third Normal Form

1. It is in the Second Normal form.
2. And, it doesn't have Transitive Dependency

Figure 1 Rules in Normal Forms

Note. To better understand the different types of normal forms, refer to the pdf file named "SupplementaryReading.pdf from the directory stated above.

2. Activity 3: Skill-building Activities (with answer key) (18 mins + 2 mins checking)