PROJECT TAMPA RAILWAY COMPANY

Morgan Harrison, Celso Santiago, Linda Valencia and Michelle Yin

Verifying Normal Forms

For the 1st Normal Form (1NF), we reviewed that each cell in the table has single values by examining if there are any columns that contain more than one value or ensuring all columns are atomic. For 2nd Normal Form (2NF), we ensured that the whole key, rather than just a portion of it, is necessary to determine any non-primary attributes. This means there were no partial dependencies. For 3rd Normal Form (3NF), we made sure that there were no transitive dependencies by ensuring that a non-primary key attribute had the opportunity to determine another. We validated the 3rd Normal Form by cross-validating the 1st Normal Form and 2nd Normal Form. Finally, after validating the three normal forms, we concluded that all of our tables were normalized. Hence, all tables have been organized and structured in a way that reduces redundancy and inconsistencies in the data of Tampa Railway Company.

Normalization verification	First Normal Form	Second Normal Form	Third Normal Form
Customers	x	x	x
Department	x	x	x
Employee	x	x	x
Weeks	x	x	x
Routes_T	x	x	x
Trains	x	x	x
Travel_S	x	x	x
Travels	x	x	x
Locations	x	x	x
ClassCabin	x	x	x
Cabins	x	x	x
Discounts	x	x	x

Payments	x	x	x
Tickets	x	x	x
Salary	x	x	x
Supplier_Dept	x	x	x
Suppliers	x	x	x

Participation report

Everyone in the group participated equally.

ERD