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**CS 4750: DB Project Milestone 3:**

**3NF Proving -- Eddie**

Tables:

Coupon: {A, B, C, D}

FD’s:

A-> A, B, C, D

* Table 1, Coupon(A, B, C, D)
  + FD’s: { A → ABCD }
  + A is a superkey, no other FD’s exist so this is in 3NF
* Table 2, Customer(A, B, C, D)
  + FD’s: { A → ABCD, B → ABCD }
  + A and B are both candidate keys, A was chosen to be the super key because B is an email that could be updated later
* Table 3, Location(A, B, C, D, E)
  + FD’s: { A → ABCDE, D → C }
  + A already implies D which implies C, A is a superkey, so this table is in 3NF
* Table 4, Manufacturer(A, B)
  + FD’s: { A → B }
  + This table has only 2 fields so it must be in 3NF
* Table 5, Orders(A, B, C)
  + FD’s: { A → ABC, B → C }
  + A is a super key, B → C is not in Canonical Coverage because A has B and can get to C separately so this is in 3NF
* Table 6, Product(A, B, C, D, E)
  + FD’s: { A → ABCDE }
  + A is a super key, no other FD’s exist so this is in 3NF
* Table 7, Promotion(A, B)
  + FD’s: { A → B }
  + Only 2 attributes in table so this must be in 3NF
* Table 8, Line\_Item(A, B, C, D, E, F)
  + FD’s: { AB → ABCDEF }
  + AB is a superkey, no other FD’s exist so this is in 3NF
* Table 9, Returns(A, B, C, D)
  + FD’s: { AB → ABCD }
  + AB is a superkey, no other FD’s exist so this is in 3NF
* Table 10, AppliedTo(A, B)
  + FD’s: { A → B }
  + Only two attributes in this table, therefore the table is in 3NF
* Table 11, Creates(A, B)
  + FD’s: { A → B }
  + Only two attributes in this table, therefore the table is in 3NF
* Table 12, LineItem\_has\_Orders(A, B, C)
  + FD’s: { AB → C }
  + AB is a superkey, no other FD’s exist so this is in 3NF
* Table 13, LineItem\_has\_product(A, B)
  + FD’s: { A → B }
  + Table has only two attributes so it must be in 3NF
* Table 14, LocatedIn(A, B)
  + FD’s: { A → B }
  + Table has only two attributes so it must be in 3NF
* Table 15, Makes(A, B)
  + FD’s: { A → B }
  + Table has only two attributes so it must be in 3NF
* Table 16, Refunds(A, B, C, D)
  + FD’s: { AB → ABCD }
  + AB is a superkey and no other FD’s exist therefore the table is in 3NF

**User Creation and Permissions - Josh**

* Sub Accounts for our database
  + Username: Ja7ad\_a Password: IeXmTnYi
  + Username: Ja7ad\_b Password: IeXmTnYi
  + Username: Ja7ad\_c Password: IeXmTnYi
  + Username: Ja7ad\_d Password: IeXmTnYi
* User Types in our database
  + Technical Administrators
    - Technical Administrators will be able to have full admin privileges for our database. They will be able to fix any issues regarding any any of the data within our database as well as the schema of the database (if the issue is severe enough). The admins will have full read and write access to all of the tables in the database so that they are not limited to any of the limiting privileges given to other users in the database.
  + Store Managers
    - Store Managers will be able to read and write into the database, however they will not be able to change the schema of the tables. This will limit them from making any mistakes of changing tables and/or dropping a table on accident. Store managers will need to read and write into the database so that they are able to process orders and edit changes depending on how the store is processing the incoming orders from the customers.
  + Customers
    - The customers will have limited control

**First Pages of Website - Josh, Farid, Jeff**

1. There are adjusted php files in the folder that currently allow you to search customers by last name.
   1. Link to add customer:
      1. <http://www.cs.virginia.edu/~jl9qc/DBconn/CustomerInsert.html>
   2. Link to update customer:
      1. <http://www.cs.virginia.edu/~jl9qc/DBconn/CustomerUpdate.html>
   3. Link to delete customer:
      1. <http://www.cs.virginia.edu/~jl9qc/DBconn/CustomerDelete.html>
   4. Link to search for customer:
      1. <http://www.cs.virginia.edu/~jl9qc/ajax/searchCustomer_project.html>