**Normalization Exercise Worksheet 3 - Veterinary Clinic**

**Team members:**

This spreadsheet represents the data for a small neighborhood veterinary clinic. Clients bring their pets (dogs, cats, and birds) to this clinic for medical treatment(s). List assumptions. List functional dependencies. Normalize this database to 3NF, showing all steps to achieve 1NF, 2NF, and 3NF. Describe how the database design supports your assumptions.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ClientID | FirstName | LastName | Address | City | St | Zip | PetID | PetName | PetTypeID | PetTypeDesc | VisitDate | VisitID | Charge | VisitNotes |

**Assumptions: (add your own)**

1. Clients may have more than one pet.
2. A visit ID is specific to a single pet.

Convert to 1NF:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ClientID | FirstName | LastName | Address | City | St | Zip | PetID | PetName | PetTypeID | PetTypeDesc | VisitDate | VisitID | Charge | VisitNotes |

Convert to 2NF: [remove partial dependencies - fields dependent on only part of the current key]

Now create tables (which remove partial dependencies)

Convert 3NF: Handle determinants (no-key fields which functionally determine other non-key fields)

Now create tables:

Check Assumptions:

**Final database design is:**