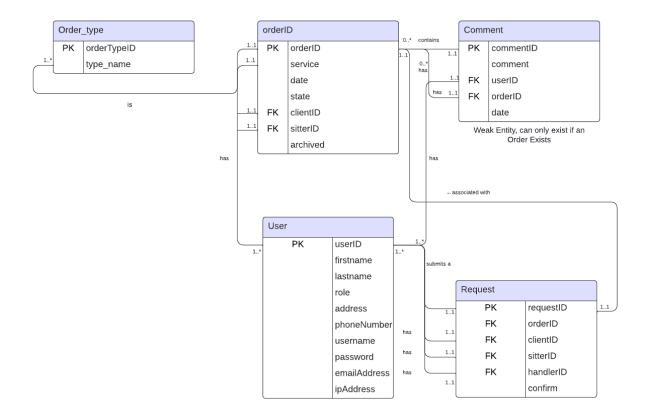CSC 263-002 Final Project Report

PSIRT - Pet Sitter Response Tracker

Team RAM - Roya, Aaron, Michael

ERD

Normalization

Unnormalized Form (UNF):

UNF will represent the initial structure of the entities and their attributes.

User (userID [PK], username, password, firstname, lastname, type, address, phoneNumber, emailAddress, ipAddress)

Order (orderID [PK], service, date, state, clientName, clientAddress, clientPhoneNumber, sitterName, sitterAddress, sitterPhoneNumber, archived)

Comment (commentID [PK], comment, userName, orderID [FK], date)

Request (requestID [PK], orderID [FK], clientName, clientAddress, clientPhoneNumber, sitterName, sitterAddress, sitterPhoneNumber, handlerName, handlerAddress, handlerPhoneNumber, confirm)

Order_type (orderTypeID [PK], typeName)

First Normal Form (1NF):

User (userID [PK], firstname, lastname, type, address, phoneNumber, username, password, emailAddress, ipAddress)

Order (orderID [PK], service, dat, state, clientID [FK], sitterID [FK], archived)

Comment (commentID [PK], comment, userID [FK], orderID [FK], date)

Request (requestID [PK], orderID [FK], clientID [FK], sitterID [FK], handlerID [FK], confirm)

Order_type (orderTypeID [PK], type_name)

In this step, we removed repeating groups and made sure each attribute contains only atomic values.

User: no changes were made, the attributes were already atomic

Order: moved client and sitter information to a separate table to avoid repeating groups, added clientID and sitterID as FK

Comment: no changes were made, the attributes were already atomic

Request: moved client, sitter, and handler information to separate tables, added clientID, sitterID, and handlerID as fk

Order_type: no changes were made, the attributes were already atomic

Second Normal Form (2NF):

User (userID [PK], firstname, lastname, type, address, phoneNumber, username, password, emailAddress, ipAddress)

Order (orderID [PK], service, dat, state, clientID [FK], sitterID [FK], archived)

Comment (commentID [PK], comment, userID [FK], orderID [FK], date)

Request (requestID [PK], orderID [FK], clientID [FK], sitterID [FK], handlerID [FK], confirm)

Order_type (orderTypeID [PK], type_name)

No changes needed for 2NF: all non-key attributes are fully functionally dependent on the primary key.

Third Normal Form(3NF):

User (userID [PK], firstname, lastname, type, address, phoneNumber, username, password, emailAddress, ipAddress)

Order (orderID [PK], service, dat, state, clientID [FK], sitterID [FK], archived)

Comment (commentID [PK], comment, userID [FK], orderID [FK], date)

Request (requestID [PK], orderID [FK], clientID [FK], sitterID [FK], handlerID [FK], confirm)

Order_type (orderTypeID [PK], type_name)

No changes needed for 3NF: there are no transitive dependencies.