## Business Use Case Scenario

This case involves a Database creation for a small real estate agency owned by John Wick. In fact, his agency is so small that he is the only agent in the company along with a part-time data entry assistant. John wants to have a database that will keep track of key information for his agency. John has asked you to develop the database that will support a Website that is under development by another contractor.

Firstly, he would like to store information about listed properties like: the address (street, city, province and postal code), # of bedrooms, # of bathrooms, square area (ft2) and listing (selling) price. Some properties are single-family homes and John wants to store the lot (land) size; other properties are condos and he needs to display the monthly maintenance fee.

Information about the area in which each property is located is also important. John wants to track the name of the area, along with the names of the schools. Those include the high schools, elementary schools and middle schools. He wants to also store general comments about the area in paragraph form.

John uses a variety of advertising outlets such as newspapers, magazines and Web sites to advertise properties he is selling. He wants to track which advertising outlet is being used to promote each property and that advertising may repeat several times (in the same outlet). John also wants to know when each ad was placed and how much does it cost. And of course, he will store the name and main phone number of the advertising outlet.

He wants to store information about each client as well like: first and last name, main contact number and type along with an e-mail address. Client’s must be categorized such that he will know who is selling a house and who is looking to purchase a house. It is possible that each property may be shared by two or more people, and therefore John needs to know who owns what percentage of the ownership. Finally, he will record the actual selling price for each property sold. John also pays past clients for referring other people to his agency. When such a referral results in a sale, he pays the referring client a small cash fee.

Finally, John sometimes sells properties that are listed by other agencies. For this case he wants to know which agency listed the property by tracking its name and main phone number.

## Tasks

Each will produce:

* an Entity Relationship Diagram of their design using MS Visio of other electronic software
* the creation script for creating all tables, fields and relationships in the database
* a separate file that contains insertion scripts for inserting a minimum of 10 records per table where appropriate. This will be fake made up data, but it must make sense.
* Produce Views to create a minimum of 4 reports that will enable John to see the state of his business, the properties currently for sale, a client list and a report of his total sales for a year of his choosing. (i.e. parameter input).

Note:

* Design to 3NF
* Use the documented style guide for all naming, sql scripts and ERD formatting.
* Create meaningful names for all attributes and use # symbol for Primary Key and use FK for Foreign Key.
* Show all table names and column names
* Show all business rules that you used to determine the relationship types between tables