Entity-Relationship Diagram

BUYER
Buyer_ID	Name

Buyer_ID — A unique integer that identifies a buyer in 5 digits

Buyer_name — A buyer's name that can be a maximum of 40 characters

INSPECTION_COMPANY
Company_ID	Name	Phone_Number	Email

Company_ID — A unique integer that identifies an inspection company in 5 digits

Company_name — The name of an inspection company in a max of 100 characters

Company_phone_and_email — (domains defined below)

TOURS
Buyer_ID	House_ID	Date	Time

Tour_date_and_time — (domain already defined below)

INSPECTS
Company_ID	House_ID	Report

Report_file_path — Can be up to 4096 characters

PROPERTY
Property_ID	Utilities	Distance_to_city_limits	House_number	Street_name	State	City	Zip_code	Listing_agent	Price	Date_listed	Status

Property_ID — A unique integer that identifies a property in 5 digits

Property_distance_to_city_limits — The distance in miles from a property to the nearest city limits in 4 total digits with 1 after the decimal

House_number — The property number that can be up to 10 characters

Street_name — The property street name that can be up to 50 characters

State_name — Name of the state in a max of 14 characters

Property_city — Same domain as city defined below

Zip_code — The property zip code that can be a max of 10 characters EX: 5 digits + a dash + 4 digits

Price — The price of a property. Can be a max of 15 total digits including 2 after the decimal for cents

Date_listed — (same as date domain defined below)

Status — The status of a property. Can be Active, Pending, or Sold

UTILITIES
Property_utility	Property_ID

Property_utility — The name of the utility in no more than 50 characters. EX: electricity

PIECE_OF_LAND
Land_ID	Acreage	Terrain

Land_acreage — The amount of land in acres up to 10 total digits with 2 of those after the decimal point

Land_terrain — The type of terrain the land is in a maximum of 50 characters

HOUSE
House_ID	Basement	Garage	Bedrooms	Bathrooms	Stories	Year_built	Square_footage

Basement — Can be 0 (no basement) or 1

How_many_car_garage — Can be 0 (no garage) or up to a 10 car garage

Number_of_bedrooms — Can be no more than 2 digits

Number_of_bathrooms — Can be no more than 3 digits with 1 after the decimal point for half baths

Number_of_stories — The number of floors in a house. Can be no more than 10

Year_built — A 4 digit year that the house was built

Square_footage — The square footage of a house in ft^2 in a maximum of 8 total digits with 2 after the decimal for precision

OPEN_HOUSE
House_ID	Date	Time	Posting_agent

Open_house_date — The date of the open house in the format: YYYY-MM-DD

Open_house_time — The time of the open house in the format: HH:MM:SS

AGENT
Agent_ID	Name	Email	Phone_number	Employment_agency

Agent_name — A real estate agent's name that can be a maximum of 40 characters

Agent's_phone_number_and_Agent's_email — (both follow the same domains defined for phone numbers and emails below)

Agent's_employment_agency — The name of an agent's employment agency that can be a maximum of 100 characters

CONTACTS
Buyer_ID	Agent_ID	Agent_name	Phone_number	Email	Message

Buyer's_message — A short message from the buyer to the listing agent that can be a maximum of 255 characters. EX: I'm interested in this house.

Buyer's_phone_number_and_Buyer's_email — (both follow the same domains defined for phone numbers and emails below)

PREFERENCE
Preference_ID	Type	Yes_or_no	Value	Min	Max	Buyer

Preference_ID — A unique integer that identifies an individual preference in 5 digits

Preference_type — The type of a preference it is. This can be Yes_or_no, Value, or Min_max

Yes_or_no — This can be yes, no, or null

Preference_value — A value can describe a preference for the number of stories, bedrooms, or bathrooms. It can be 3 total digits with 1 after the decimal point for half bathrooms.

Min — The minimum value for a preference where that's applicable, such as the number of stories, bedrooms, or bathrooms. It can be 3 total digits with 1 after the decimal point

Max — A maximum value for a preference where that's applicable, such as the number of stories, bedrooms, or bathrooms. It can be 3 total digits with 1 after the decimal point

NEIGHBORHOOD
City	Name

Neighborhood_city_name — The name of the city where a neighborhood is located in a maximum of 50 characters

Neighborhood_name — The name of a neighborhood in a maximum of 100 characters

EXISTS_IN_NEIGHBORHOOD
City	Neighborhood_name	Property_ID

HOA
Neighborhood	Name	Phone_Number	Email

HOA_name — A name for an HOA that can be a maximum of 100 characters

HOA_phone_number — A phone number for an HOA that can be a maximum of 15 characters to include formatting characters and country codes EX: +1 123-456-7890

HOA_email — An email for the HOA that is no longer than 320 characters

HOA_FEE
HOA_ID	Name_of_service	When_collected	Amount

Name_of_service — A name for an HOA service that can be a maximum of 100 characters

When_collected — A short description of how often an HOA fee is collected in a maximum of 30 characters

Fee_amount — An amount of money that a fee requires in a 10 digit decimal number where 2 of those digits can come after the decimal point

HOA_RULE
HOA_ID	Name_of_rule	Description

Name_of_rule — A name for an HOA rule that can be a maximum of 100 characters

Rule_description — A description of an HOA rule that can be a maximum of 500 characters

EXISTS_IN_SCHOOL_DISTRICT
District_ID	Property_ID

SCHOOL_DISTRICT
District_ID	Name	Type

District_ID — A unique integer that identifies a school district in 5 digits.

District_Name — A unique name for a school district that can be a maximum of 100 characters

District_Type — The type of school district can be Elementary, Middle, or High School