**Eggshell Database Entity Description**

1. subdivision
   1. A subdivision refers to a parcel of land that has been divided into smaller lots for the purpose of development, construction, or sale.
   2. Attribute:
      1. subdivision\_name
   3. Occurrence:
      1. Each subdivision has one school district
      2. Each subdivision has multiple lots
2. School district
   1. School district is a specific geographic area that is established to provide and manage public education for students within that region, such as elementary, middle and high school.
   2. Attribute:
      1. school\_district\_id
      2. elementary\_school
      3. middle\_school
      4. High\_school
      5. subdivion\_name
   3. Relationships:
      1. Each school district is associated with one subdivision
3. Lots
   1. A Lot represents a parcel of land within a subdivision.
   2. Attribute:
      1. lot\_id
      2. subdivision\_name
      3. style\_name
      4. longitude
      5. latitude
      6. Zipcode
   3. Relationships:
      1. One lot has multiple decorator\_choices
      2. One lot has one construction\_progress
      3. One lot has multiple rooms
      4. One lot has one sale
      5. One style may associated with multiple lots
      6. One subdivision has multiple lots
4. Style
   1. Style refers to the architectural design and aesthetic features of a house or residential building. It encompasses various elements such as the shape, layout, materials, and decorative features of a house.
   2. Attribute:
      1. style\_name
      2. description
      3. base\_price
      4. photo\_url
      5. Size
   3. Relationships:
      1. Multiple lots can use the same style
      2. One style has multiple elevations
5. Room
   1. A room is a defined space within a building, typically enclosed by walls, a floor, and a ceiling. Rooms serve various purposes and can vary in size, shape, and function.
   2. Attribute
      1. room\_id
      2. size
      3. floor
      4. comments
      5. windows
      6. Ceiling
      7. lot\_id
   3. Relationships:
      1. Multiple rooms would be exist in a lot
6. Elevation
   1. House elevation refers to the architectural drawing or representation that shows one side of a house, typically illustrating its design, proportions, and features.
   2. Attribute:
      1. elevation\_type
      2. description
      3. cost
      4. sketch\_url
      5. style\_name
   3. Relationships:
      1. One style has multiple elevations that can be chosen by the customers
7. decor\_choices
   1. Represents design decisions made by the client during the construction stage.
   2. Attribute:
      1. deco\_choice\_id
      2. stage
      3. date
      4. buyer\_signature\_date
      5. buyer\_signature\_url
      6. lot\_id
      7. staff\_id
   3. Relationships:
      1. One decorator choices has multiple decorator items, such as trim, roof and electrical outlet
      2. One lot has multiple decorator choices
      3. One staff can be responsible for multiple decorator choices
8. deco\_items
   1. Decorator items refer to various elements and accessories used in interior design and home décor to enhance the aesthetic appeal and functionality of a space.
   2. Attribute:
      1. decoo\_item\_id
      2. Room\_id
      3. Description
      4. Price
      5. Deco\_choice\_id
      6. Option\_id
   3. Relationships:
      1. One decorator choice can have multiple decorator items
      2. One option can be chosen by many decorators’ items. For example, the option of fixing the pipe can be chosen by many decorator items.
9. Options
   1. This entity is an exterior option that the client chose for the decorator choice.
   2. Attribute:
      1. option\_id
      2. description
      3. stage
      4. category
      5. Cost
   3. Relationships:
      1. One option can be chosen by many decorators’ items. For example, the option of fixing the pipe can be chosen by many decorator items.
10. Construction\_progress
    1. Construction progress is used by construction managers to track the progress of each house and evaluate the work crews based on that progress.
    2. Attribute:
       1. progress\_id
       2. city
       3. date
       4. stage
       5. photo\_url
       6. Time\_estimation
       7. Lot\_lot\_id
       8. staff\_staff\_Id
    3. Relationships:
       1. One lot can have multiple construction progresses
       2. Many tasks are involved in one construction progress
       3. One staff can manage multiple construction progresses
11. Task
    1. This entity is the major task remaining for the current stage in the construction progress.
    2. Attribute:
       1. task\_id
       2. description
       3. Percent\_completed
       4. progress\_progress\_id
    3. Relationships:
       1. Many tasks are involved in one construction progress
12. Sale
    1. This entity is more like an initial contract for the sale of a house that includes important information, such as details of house and lots and customer’s information and bank payment etc.
    2. Attribute:
       1. sale\_id
       2. Date
       3. base\_price
       4. financing\_method
       5. lot\_premium
       6. Escrow\_deposit
       7. Agreement\_received
       8. disclosure\_form\_received
       9. Contract\_received
       10. Staff\_staff\_id
       11. Customer\_customer\_id
       12. bank\_bank\_Id
       13. Escrow\_agent\_escorw\_agent\_id
       14. lot\_lot\_id
    3. Relationship:
       1. One sale is corresponding to one lot
       2. One bank can be on multiple sale
       3. One escrow agent can have multiple sales
       4. One customer have have multiple sales
       5. One lot is corresponding to one sale
13. Bank
    1. Banks play several crucial roles, primarily related to financing, transactions, and financial services, in this context, more related to housing transactions such as mortgages.
    2. Attribute:
       1. bank\_id
       2. bank\_name
       3. phone
       4. fax
       5. street
       6. city
       7. state
       8. Zip
    3. Relationship:
       1. One bank can be on multiple sale
14. Staff
    1. The staff here mainly indicates staff including in the process, such as sales representative, construction managers and employees in the decorator choices.
    2. Attribute:
       1. staff\_id
       2. staff\_title
       3. fname
       4. lname
       5. License\_number
    3. Relationship:
       1. One staff(construction manager) can be in charge of multiple construction process
       2. One staff(sale representative) can be responsible for multiple sales
       3. One staff(employee) can be responsible for multiple decorator choices
15. Customer:
    1. A Customer's entity refers to clients who signed the initial contract for the sale of a house.
    2. Attribute:
       1. customer\_id
       2. fname
       3. lname
       4. street
       5. city
       6. state
       7. Zip
    3. Relationship:
       1. A customer can sign multiple sales contracts
16. Escrow\_agent
    1. A neutral third party who handles the financial aspects of the sale.
    2. Attribute:
       1. escrow\_agent\_id
       2. fname
       3. lname
       4. street
       5. city
       6. state
       7. Zip
    3. Relationship:
       1. One escrow agent can work with multiple sales