

# Group 3 Term Project Part 2 - Relational Schema (Data Dictionary)

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# Narrative

This document serves as a Data Dictionary as well as an explanatory reference for our Database Schema.

## Important Links

- [Group 3 Term Project Part 2 - Relational Schema Diagram](#)

## Project Team

1. James Bradley (Programmer)
2. Morgen Senior (Programmer)
3. Lakeisha Stanton (Programmer)
4. Morrese Morrison (Programmer)

## Database Schema Narrative

The overall approach for this Schema was to have all tables interconnected through a primary key and foreign key relationship. This promotes easibility when constructing queries as well as a speed performance boost due to each table essentially being indexed. Speed and performance is also promoted through the use of the CHAR data type instead of using the data type VARCHAR. Opting to use CHAR as opposed to VARCHAR allows each row to be indexed which speeds up each query.

Also with each table being interconnected through a Primary Key and Foreign Key, various joins can be implemented to retrieve the required data. One child table is implemented with 6 child tables with supporting data. This top level design was selected for feasibility and overall data organization. When appropriate, certain columns have an auto incremented ID to make that entity unique as well as providing a fresh reference per each record.

### Staff (Parent Table)

The staff table has been designated as the parent table due to it being the only table without a foreign key. The Staff table is the smallest table, however with this top down level approach, each entity relates back to that table somehow. Each SSN is unique to promote table integrity. Again, this table has simple information on the staff that are currently employed.

- Staff\_ID (Primary Key, INT 10, AUTO INCREMENT)
- Staff\_SSN (CHAR 35, NOT NULL, UNIQUE)

- First\_Name ( CHAR 35, NOT NULL)
  - Last\_Name ( CHAR 35, NOT NULL)
- 1 Primary Key

## Collector (Child Table)

The collectors table is a table that houses information on collectors. Basic information about their name, address, as well as their preferred Artist, art type, style and medium. SSN numbers are also Unique in this table. However this table has a Foreign Key named “Staff\_ID\*”. This key is referenced by the “Staff\_ID\*” column in the Staff table. The reason being is that each collector is interviewed by a staff member. That staff member's ID number is associated with that specific interview. Also the preference of that collector is indicted by the second foreign key “Artist\_ID” which is linked by the Primary Key “Artist\_ID” in the Artist table.

- Collector\_ID (Primary Key, CHAR 10, AUTO INCREMENT)
- Collector\_SSN (CHAR 10, NOT NULL, UNIQUE)
- First\_Name ( CHAR 35, NOT NULL)
- Last\_Name (CHAR 35, NOT NULL)
- Interview\_Date (DATE, NOT NULL)
- Staff\_ID (Foreign Key, INT 10, NOT NULL)
- Street (CHAR 35, NOT NULL)
- City (CHAR 35, NOT NULL)
- State (CHAR 2, NOT NULL)
- Zip (INT 5, NOT NULL)
- Phone (INT 11, NOT NULL)
- Artist\_ID (Foreign Key, INT 10, NOT NULL)
- Usual\_Type (CHAR 35, NOT NULL)
- Usual\_Style (CHAR 35, NOT NULL)
- Usual\_Medium (CHAR 35, NOT NULL)

1 Primary Key  
2 Foreign Keys

## Artist Table (Child Table)

The Artist table is a collection of personal information of a particular artist. This table has one foreign key which is “Staff\_ID\*”. This links to the “Staff” table. The staff member that is listed is who has interviewed that Artist. This table also has a primary key which is the Artist’s ID.

- Artist\_ID (Primary Key, INT 10, AUTOINCREMENT)
- Artist\_SSN (CHAR 10, NOT NULL, UNIQUE)
- First\_Name (CHAR 35, NOT NULL)
- Last\_Name (CHAR 35, NOT NULL)

- Interview\_Date (DATE, NOT NULL)
- Staff\_ID (Foreign Key, NOT NULL)
- Street (CHAR 35, NOT NULL)
- City (CHAR 35, NOT NULL)
- State (CHAR 2, NOT NULL)
- ZIP (INT 5, NOT NULL)
- Phone (INT 11, NOT NULL)
- Usual\_Type (CHAR 35, NOT NULL)
- Usual\_Style (CHAR 35, NOT NULL)
- Usual\_Medium (CHAR 35, NOT NULL)

1 Primary Key  
1 Foreign Keys

## CustomerTable (Child Table)

The customer table is a collection of personal information of a customer. This information is used for sales and receipt purposes, but also serves as a marketing opportunity for mail campaigns. Each customer has a customer ID attached to them. This table has one Primary key which is "Customer\_ID" and one foreign key which is "Artist\_ID\*".

- Customer\_ID (Primary Key, INT 10, AUTO INCREMENT)
- First\_Name (CHAR 35, NOT NULL)
- Last\_Name (CHAR 35, NOT NULL)
- Street (CHAR 35, NOT NULL)
- City (CHAR 35, NOT NULL)
- State (CHAR 2, NOT NULL)
- ZIP (INT 5, NOT NULL)
- Phone (INT 11, NOT NULL)
- Artist\_ID (Foreign Key, INT 10, NOT NULL)
- Usual\_Type (CHAR 35, NOT NULL)
- Usual\_Style (CHAR 35, NOT NULL)
- Usual\_Medium (CHAR 35, NOT NULL)

1 Primary Key  
1 Foreign Keys

## Artwork Table (Child Table)

The artwork table comprises of various artwork information such as who created the artwork, the title of the artwork and the year it was completed. Each artwork has a inventory id attached to it that auto increments. It also has an Invoice\_ID if it is sold. The artist that created the art worked is also linked to the artwork as well. This table has one primary key and two foreign keys. An

explanation on the size column with its 6 CHAR restraint is to categorize the size of the artwork as either Small, Medium or Large.

- Inventory\_ID (Primary Key, INT 10, Auto Increment)
- Invoice\_ID (Foreign Key, INT 35)
- Artist\_ID (Foreign Key, INT 10, NOT NULL)
- Title (CHAR 35, NOT NULL)
- Year\_Completed (DATE, NOT NULL)
- Type (CHAR 35, NOT NULL)
- Medium (CHAR 35, NOT NULL)
- Style (CHAR 35, NOT NULL)
- Size (CHAR 6, NOT NULL)
- Asking\_Price (INT 10, NOT NULL)
- Date\_Listed (DATE, NOT NULL)
- Date\_Sold (DATE, NOT NULL)

## Show Table (Child Table)

The show table only comprises of four different columns. The date of a show, the theme that the artist has chosen, artwork displayed in the show and the Show ID. Each new show has a new ID auto incremented.

- Show\_ID (Primary Key, INT 10, AUTO INCREMENT)
- Show\_Date (DATE, NOT NULL)
- Artist\_Theme (INT 10, NOT NULL)
- Inventory\_ID (Foreign Key, NOT NULL)

1 Primary Key

1 Foreign Key

## Sales Table (Child Table)

This table is the sale table that hold multiple columns regarding sales This table has the most foreign keys.

- Invoice\_Num (Primary Key, INT 35, AUTO INCREMENT)
- Inventory\_ID (Foreign Key, INT 10, NOT NULL)
- Artist\_ID (Foreign Key, INT 10, NOT NULL)
- Customer\_ID (Foreign Key, INT 10, NOT NULL)
- Staff\_ID (Foreign Key, INT 10, NOT NULL)
- Sale\_Date (DATE, NOT NULL)
- Saff\_Commission (INT 6, NOT NULL)

