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Assumptions made for Assignment 1A

Relationships:

Artwork & Artist:

1. An Artist paints a minimum of one Artwork, and a max of many Artworks.
2. An Artwork is painted by a minimum of one Artist and a maximum of one Artist (An Artwork has to have an Artist)

Artwork & Gallery:

1. An Artwork is exhibited by a minimum of zero Galleries (Since the Gallery can choose to exhibit an Artwork) and a maximum of one Gallery (Since I assume an Artwork can only be exhibited at one Gallery at a given time)
2. A Gallery can exhibit a minimum of one Artwork and a maximum of many Artworks.

Artwork & Style:

1. An Artwork is assigned a minimum of one and a maximum of one style as per requirement.
2. A Style is assigned to a minimum of one and a maximum of many Artworks as there can be many Artworks which follow the same style.

Artwork & Gallery:

1. An Artwork will be exhibited if the gallery wishes to, and it can only be exhibited at one gallery at a time. (Each Artwork will be exhibited in a max of one Gallery at any one given time)
2. A Gallery exhibits a minimum of one Artwork and a maximum of many Artwork's at any given time.

Gallery & Sale:

1. A Gallery can generate a minimum of no sales(zero sales) and a maximum of many sales.
2. A Sale is generated by a minimum of one Gallery and a max of one Gallery as the Sale recorded in each Gallery can differ.

Sale & Customer:

1. A sale is made by a minimum of one Customer and a max of one Customer. '
2. A Customer makes a minimum of zero sales(when he/she doesnt purchase anything) and a maximum of many sales(when he/she decides to purchase 1 or more Artworks)

Keys:

Artwork:

Since all the artworks are assigned an artwork number specific to an artist, I will incorporate a composite key of "artist_code" & "artwork_no". I take artist_code from the artist table.

Style:

The unique identifier for Style can simply be the composite key from the parent, Artwork, this is because the key can uniquely determine each style for the artwork and this will be enough and won't require another attribute. I assume the person entering the record details already knows to classify each artwork by style, therefore they will be able to determine the style_parent if the style_child is given, otherwise in the other case, where the style_parent is already known, we can simply leave the style_child to be Null.

Gallery:

I used attributes from Artwork just so I can distinguish each artwork separately which is being exhibited in the Gallery at a given time. I assume the Gallery has only one exhibition at any one time.

Sale, Customer & Artist:

This was given clearly in the assignment spec.

Entities:

Style:

This Entity represents the style of the work. I assume that the person entering the record of each Artwork already knows what each style is, therefore they will be able to derive the parent style through the child style.

Attributes:

In Gallery:

gallery_exhibit_start_date: This attribute will store the date in which a particular exhibit started to be displayed at the gallery.

gallery_is_artwork_on_display: This attribute is to show that a particular artwork is on display as the gallery can choose to return the artwork back to Mau if it attracts less attention.

UML:

Artist:

- I broke down the artistName into firstName and lastName as I assumed artistName to be a composite attribute. (A person has a first name and last name)
- I broke down the artistAddress into street, town and postCode as I assumed artistAddress to be a composite attribute.
- I broke down the artistPhoneNumber into areaCode and lineNumber as I assumed artistPhoneNumber to be a composite attribute. lineNumber is the attribute that holds the rest of the phone number.
- artistNoOfWork is a calculated variable that increments each time an Artist submits a new artwork to MAU.

Gallery:

- I broke down the galleryManager into firstName and lastName as I assumed galleryManager to be a composite attribute. (A person has a first name and last name)
- I broke down the galleryAddress into street, town and postCode as I assumed galleryAddress to be a composite attribute.
- I broke down the galleryContact into areaCode and lineNumber as I assumed galleryContact to be a composite attribute. lineNumber is the attribute that holds the rest of the phone number.

Customer:

- I broke down the customerName into firstName and lastName as I assumed customerName to be a composite attribute. (A person has a first name and last name)
- I broke down the customerAddress into street, town and postCode as I assumed customerAddress to be a composite attribute.
- I broke down the customerPhone into areaCode and lineNumber as I assumed customerPhone to be a composite attribute. lineNumber is the attribute that holds the rest of the phone number.