**PROJECT PHASE 1**

**Assumptions:**

1. We have been given an art gallery database and the given below are descriptions of what all tables we have used.

* ARTIST—Stores information of the artists
* CONTARCT—Stores information about the contracts secured by the artists
* ARTWORK- Information about the artworks and the artists who own them
* CUSTOMERS- people who purchase the artworks are customers
* VISITORS- People who visits the art gallery but does not buy any art are categorized as visitors.
* PAYMENTS- Contains the payment information
* ARTFORMS- The different artforms are stored in this table
* STATE- Contains the state information and the address of the artists and the customers

2. This point given explanations on what tools we have used to construct the EER diagram:

* Oval: Attributes
* Rectangle- entities
* Dotted oval- Derived attribute
* Oval with an underlined attribute – primary and Unique keys
* Oval with dotted underlined attributes- foreign key
* Diamond- relationships

3. RELATIONSHIPS

* ***1:1 :***

--> 1 ARTIST can own only N contract (N can vary between 0-10)

-->1 Artist will belong to only 1 State

-->1 Customer can belong to 1 State

* ***1:N***

-->artist artwork

* ***N:M***

-->ARTWORK CUSTOMER

-->CUSTOMER VISITOR

-->CUSTOMER PAYMENT

-->ARTWORK ARTFORMS

4. The foreign and Primary and unique keys are mentioned below along with this point.

* ARTIST TABLE: PK: ARTISTD

FK: CONTRACT\_ID

* CONTRACT TABLE: PK: CONTRACT\_ID
* ARTFORM TABLE: PK: ARTFORM\_ID
* ARTWORK TABLE: PK: ARTWORK\_ID

FK: ARTFORM\_ID, ARTIST\_ID

* VISITOR TABLE: PK: VISITOR\_ID
* CUSTOMER TABLE: PK: CUSTOMER\_ID

FK: VISITOR\_ID

* PAYMENT TABLE: PK: PAYMENT\_ID

FK: ARTWORK\_ID, ARTIST\_ID

* STATE TABLE: PK: STATE\_ID

FK: CUSTOMER\_ID, ARTIST\_ID

5. It has been mentioned that new states can be added in the future, for this case, we have considered a STATE table that is linked to ARTIST and CUSTOMER Table. Initially say there are 5 states with different artists. In the future, when a new artist comes belonging to a new state, we append that to the STATE table, and it gets reflected in ARTIST table as well. We are also assuming that the state\_ab is unique for each state.

6. We have also created an ARTWORKFORM table that initially has 4 artforms. In the future new artwork forms can and will be added and will be reflected accordingly.

7. In the PAYMENT table we have defined two attributes, UPFRONT\_PRICE—that computes half the price+ commission then a FINAL\_PRICE—that stores rest of the price. The result of these two is stored in a variable called TOTAL\_PRICE.

8. When 2 or more customers buy an artwork together, we assume that they pay the money on the same date. Ie. Upfront date of the group customers irrespective of how they decide to pay is same.

8. We are assuming each artwork to have 1 id in the payment table. Say for example, an artist ‘A’ has 4 artworks under paint category, they are all numbered differently. This helps us to fetch customers who purchased as a group easily.