David Guido
CPSC 332
T / TH: 5:30-6:45pm
November 4, 2019

Assignment 3
Art Gallery E-R Diagram

Instructions: *"Design an E-R Diagram for an Art Gallery.*
ER must be done with Microsoft Visio or a similar tool."

Gallery keeps information about:

Artist: *Name (unique), Phone, Address, Birth place, Age & Style of Art*

Art Work: *Artist, Unique title, Type of art, date of creation, date acquired by gallery, Price, location*

Customer: *Customer Number, Phone, Art preferences*

Art Shows: *Artist, date and time, location, contact, contact phone*

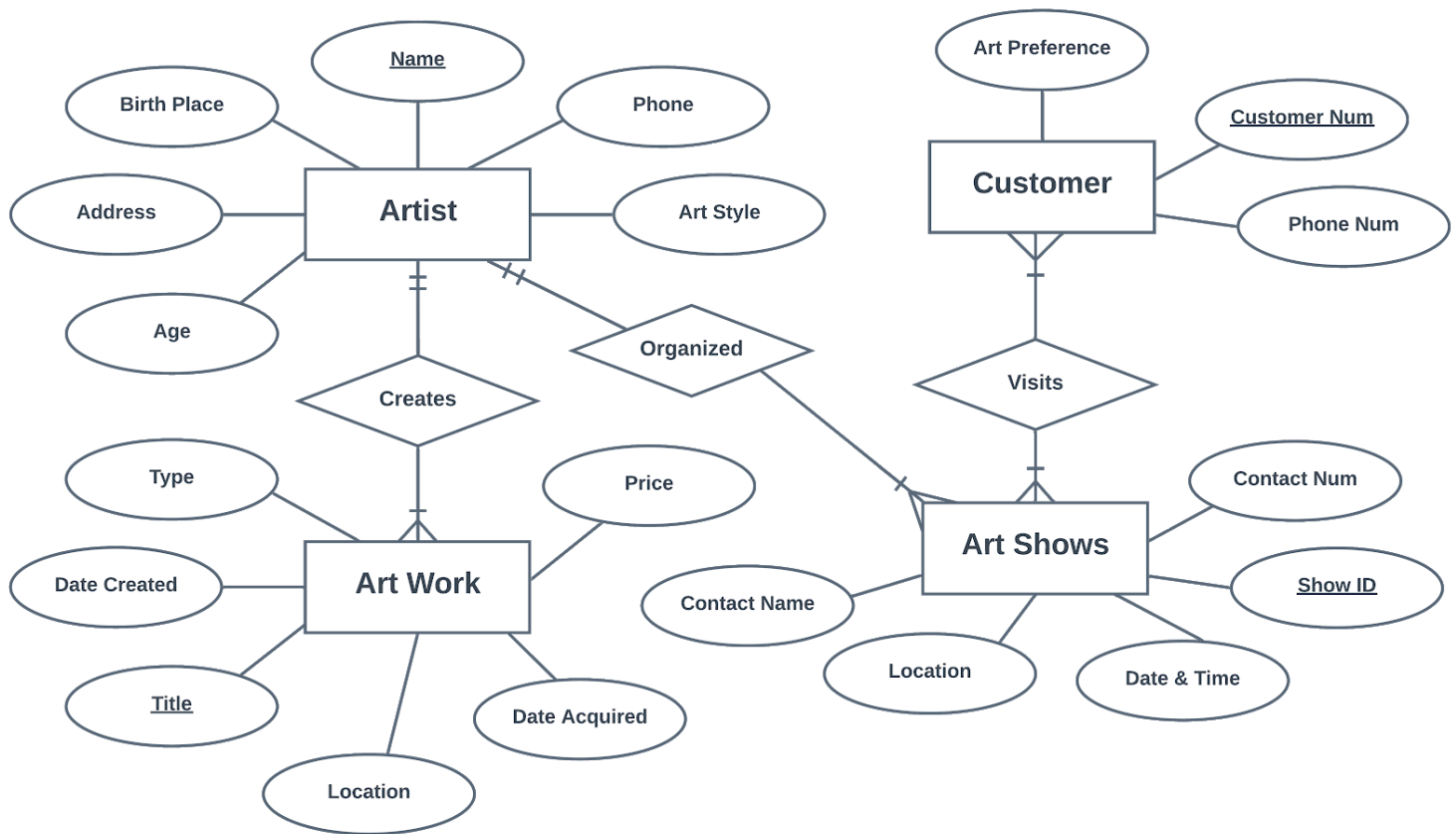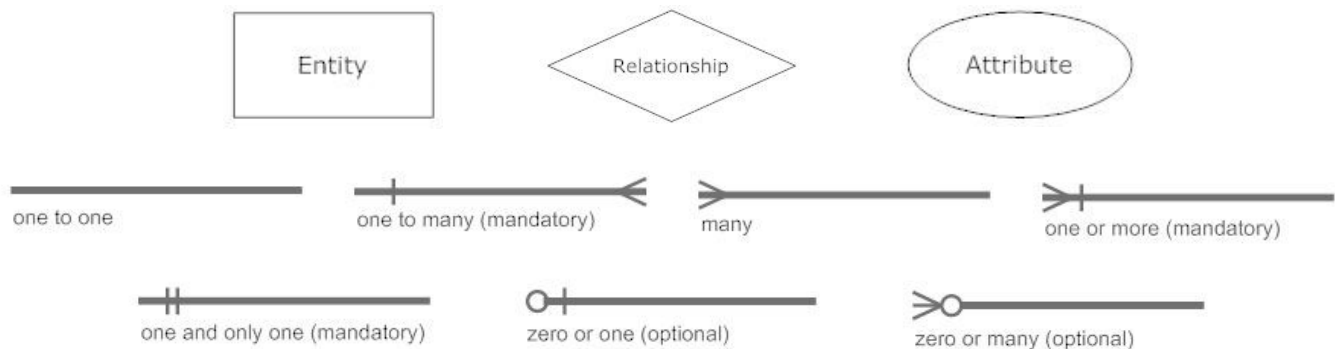## Solution:

*** E.R. Diagram is on page 2 ***

⇒ Made with *LucidCharts*, a popular solution for visualizing modern software engineering projects. Added using *LC add-on* for Google Docs.

Terms:

1. **Entities:**   Thing capable of an independent existence that can be uniquely identified.

2. **Relationships:**   Expresses the associations and dependencies between entities.

3. **Cardinality:**   How many instances of an entity relate to one instance of another entity.

Entity-Relationship Diagram

Artist (entity)
- Name (underlined - primary key)
- Birth Place
- Phone
- Address
- Art Style
- Age

Customer (entity)
- Art Preference
- Customer Num (underlined - primary key)
- Phone Num

Art Work (entity)
- Type
- Price
- Date Created
- Title (underlined - primary key)
- Date Acquired
- Location

Art Shows (entity)
- Contact Num
- Show ID (underlined - primary key)
- Contact Name
- Location
- Date & Time

Relationships:
- Creates (Artist — Art Work)
- Organized (Artist — Art Shows)
- Visits (Customer — Art Shows)

Key:

Entity	Relationship	Attribute

- one to one
- one to many (mandatory)
- many
- one or more (mandatory)
- one and only one (mandatory)
- zero or one (optional)
- zero or many (optional)

Notes:

⇒ Uses **Crow's Foot Notation**:

- Diagrams represent **entities** as boxes, and **relationships** as lines between the boxes.

- Different shapes at the ends of these lines represent the relative **cardinality** of the **relationship**.

- Underlined attributes are [part of] the primary key.