

# VISUAL ART GALLERY

## INTRODUCTION:

The SQL script is designed to set up a database for a Virtual Art Gallery. It includes the creation of a database, tables for storing information about artists, artworks, galleries, and users, as well as relationships between these entities. This setup facilitates managing an art gallery digitally, including user interactions such as favourites.

## ENTITIES:

**Artist:** Contains information about artists, such as ID, name, biography, birth date, nationality, website, and contact information.

**Artwork:** Stores details about artworks, including ID, title, description, creation date, medium, image URL, and a reference to its artist.

**User:** Holds user information like ID, username, password, email, full name, date of birth, and profile picture.

**Gallery:** Represents galleries including ID, name, description, location, curator (linked to an artist), and opening hours.

**User\_Favorite\_Artwork:** A junction table that connects users and their favourite artworks.

**Artwork\_Gallery:** Another junction table that links artworks with galleries they are displayed in.

## 1. Artist Table

ArtistID (INT, Primary Key): Unique identifier for each artist.

Name (VARCHAR(50)): Name of the artist.

Biography (TEXT): Biography of the artist.

BirthDate (DATE): Birth date of the artist.

Nationality (VARCHAR(50)): Nationality of the artist.

Website (VARCHAR(255)): Website URL of the artist.

ContactInformation (VARCHAR(50)): Contact information of the artist.

## **2. Artwork Table**

ArtworkID (INT, Primary Key): Unique identifier for each artwork.

Title (VARCHAR(70)): Title of the artwork.

Description (TEXT): Description of the artwork.

CreationDate (DATE): Creation date of the artwork.

Medium (VARCHAR(100)): Medium used in the artwork.

ImageURL (VARCHAR(255)): URL for the artwork image.

ArtistID (INT, Foreign Key): Links to ArtistID in the Artist table.

## **3. User Table**

UserID (INT, Primary Key): Unique identifier for each user.

Username (VARCHAR(50)): Username of the user.

Password (VARCHAR(50)): Password of the user.

Email (VARCHAR(255)): Email address of the user.

FirstName (VARCHAR(50)): First name of the user.

LastName (VARCHAR(50)): Last name of the user.

DateOfBirth (DATE): Birth date of the user.

ProfilePicture (VARCHAR(255)): URL for the user's profile picture.

## **4. User\_Favorite\_Artwork Table (Junction Table)**

UserID (INT, Foreign Key): Links to UserID in the User table.

ArtworkID (INT, Foreign Key): Links to ArtworkID in the Artwork table.

This table does not have a specified primary key in the script; typically, a composite key using both UserID and ArtworkID is used.

## **5. Artwork\_Gallery Table (Junction Table)**

ArtworkID (INT, Foreign Key): Links to ArtworkID in the Artwork table.

GalleryID (INT, Foreign Key): Links to GalleryID in the Gallery table.

## 6. Gallery Table

GalleryID (INT, Primary Key): Unique identifier for each gallery.

Name (VARCHAR(50)): Name of the gallery.

Description (TEXT): Description of the gallery.

Location (VARCHAR(100)): Physical location of the gallery.

Curator (INT, Foreign Key): Links to ArtistID in the Artist table, indicating an artist acting as a curator.

OpeningHours (VARCHAR(255)): Opening hours of the gallery.

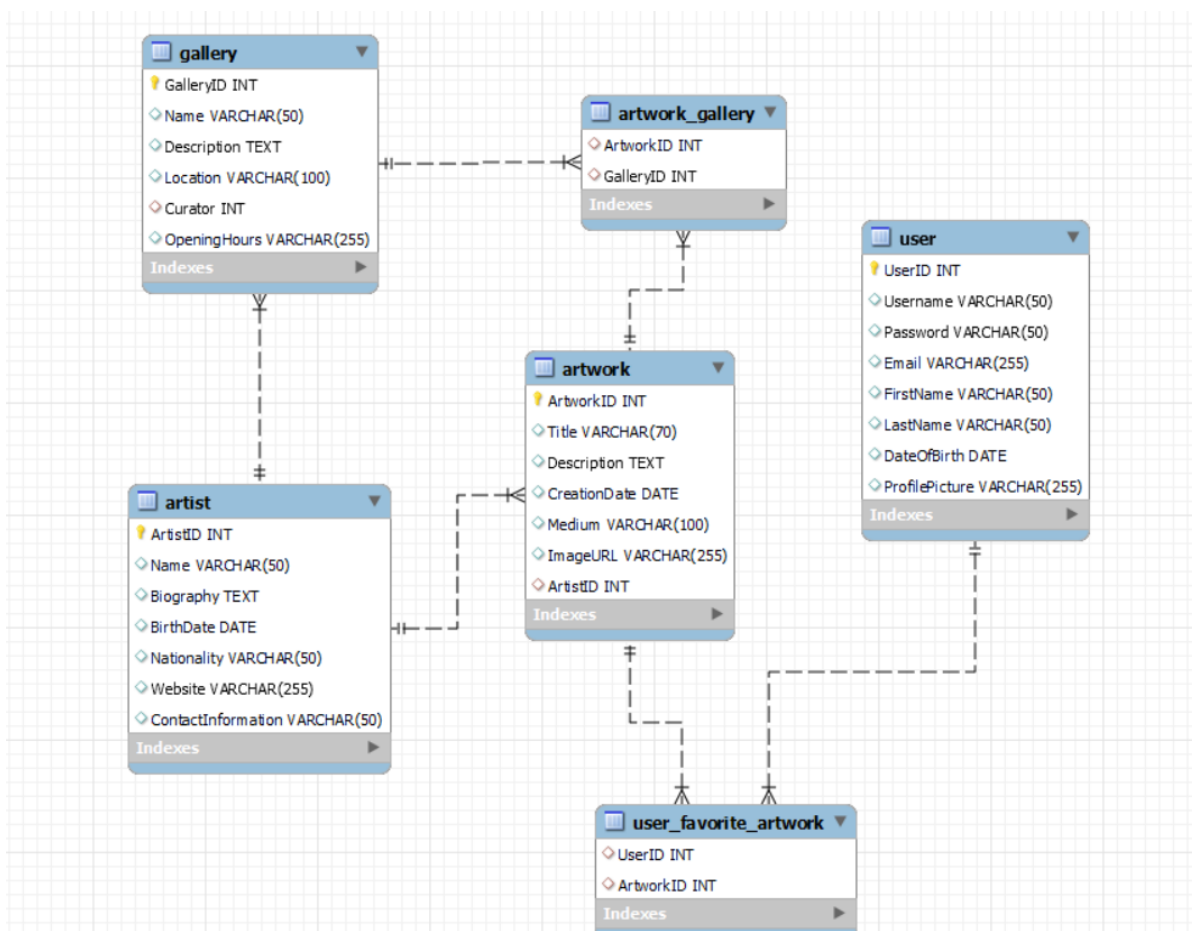
## ENTITY RELATIONSHIPS:

Artwork to Artist: Each artwork is linked to an artist via a foreign key.

User Favourite Artwork: Associates users with artworks they favor.

Artwork in Gallery: Connects artworks to the galleries they are displayed in.

Gallery Curated by Artist: Galleries have artist as curators.



## DATABASE SETUP PROCESS:

Creation of the Virtual\_Art\_Gallery database:

```
CREATE DATABASE Virtual_Art_Gallery;
```

Usage of the Virtual\_Art\_Gallery database:

```
USE Virtual_Art_Gallery;
```

Creation of Artist Table:

```
> CREATE TABLE Artist (  
    ArtistID INT PRIMARY KEY,  
    Name VARCHAR(50),  
    Biography TEXT,  
    BirthDate DATE,  
    Nationality VARCHAR(50),  
    Website VARCHAR(255),  
    ContactInformation VARCHAR(50)  
- );
```

Creation of Artwork table:

```
CREATE TABLE Artwork (  
    ArtworkID INT PRIMARY KEY,  
    Title VARCHAR(70),  
    Description TEXT,  
    CreationDate DATE,  
    Medium VARCHAR(100),  
    ImageURL VARCHAR(255),  
    ArtistID INT,  
    FOREIGN KEY (ArtistID)  
        REFERENCES Artist (ArtistID)  
);
```

Creation of User table:

```
CREATE TABLE User (  
    UserID INT PRIMARY KEY,  
    Username VARCHAR(50),  
    Password VARCHAR(50),  
    Email VARCHAR(255),  
    FirstName VARCHAR(50),  
    LastName VARCHAR(50),  
    DateOfBirth DATE,  
    ProfilePicture VARCHAR(255)  
);
```

## Creation of User\_Favorite\_Artwork table(JUNCTIONTABLE):

```
CREATE TABLE User_Favorite_Artwork (  
    UserID INT,  
    ArtworkID INT,  
    FOREIGN KEY (UserID)  
        REFERENCES User (UserID),  
    FOREIGN KEY (ArtWorkID)  
        REFERENCES Artwork (ArtworkID)  
);
```

## Creation of gallery table

```
CREATE TABLE Gallery (  
    GalleryID INT PRIMARY KEY,  
    Name VARCHAR(50),  
    Description TEXT,  
    Location VARCHAR(100),  
    Curator INT,  
    OpeningHours VARCHAR(255),  
    FOREIGN KEY (Curator) REFERENCES Artist(ArtistID)  
);
```

## Creation of Artwork\_Gallery junction table:

```
CREATE TABLE Artwork_Gallery (  
    ArtworkID INT,  
    GalleryID INT,  
    FOREIGN KEY (ArtworkID)  
        REFERENCES Artwork (ArtworkID),  
    FOREIGN KEY (GalleryID)  
        REFERENCES Gallery (GalleryID)  
);
```

## Insertion of sample data into Artist table:

```
INSERT INTO Artist  
VALUES  
(1,'Leonardo da Vinci', 'Leonardo di ser Piero da Vinci was an Italian polymath of the High Renaissance who is widely considered one of the most diversely talented i  
(2, 'Frida Kahlo', 'Frida Kahlo de Rivera was a Mexican painter known for her many portraits, self-portraits, and works inspired by the nature and artifacts of Mexic  
(3, 'Georgia O Keeffe', 'Georgia Totto O Keeffe was an American artist best known for her paintings of enlarged flowers, New York skyscrapers, and New Mexico landsca  
(4, 'Gustav Klimt', 'Gustav Klimt was an Austrian symbolist painter and one of the most prominent members of the Vienna Secession movement.', '1862-07-14', 'Austrian  
(5, 'Edvard Munch', 'Edvard Munch was a Norwegian painter and printmaker whose intensely evocative treatment of psychological themes built upon some of the main tene  
(6, 'Katsushika Hokusai', 'Katsushika Hokusai was a Japanese artist, ukiyo-e painter and printmaker of the Edo period.', '1760-10-31', 'Japanese', 'https://en.wikiped  
(7, 'Alphonse Mucha', 'Alphonse Maria Mucha was a Czech painter, illustrator, and graphic artist, living in Paris during the Art Nouveau period.', '1860-07-24', 'Cze  
(8, 'Vincent van Gogh', 'Vincent Willem van Gogh was a Dutch Post-Impressionist painter who is among the most famous and influential figures in the history of western
```

## Insertion of sample data into Artwork table:

```
INSERT INTO Artwork  
VALUES  
(1, 'The Last Supper', 'The Last Supper is a late 15th-century mural painting by Leonardo da Vinci depicting the Last Supper of Jesus with his disciples.',  
(2, 'Vitruvian Man', 'The Vitruvian Man is a drawing created by Leonardo da Vinci circa 1490. It is accompanied by notes based on the work of the architect  
(3, 'The Two Fridas', 'The Two Fridas is a painting by Frida Kahlo that depicts two versions of Kahlo seated together. One is wearing a European dress whil  
(4, 'Blue and Green Music', 'Blue and Green Music is a painting by Georgia O Keeffe that reflects her feelings about music through visual art, using flowin  
(5, 'The Kiss', 'The Kiss is a painting by Gustav Klimt, and is his most famous work. It depicts a couple embracing, their bodies entwined in elaborate rol  
(6, 'The Scream', 'The Scream is an iconic painting by Edvard Munch depicting a figure with an agonized expression against a blood red sky. It is one of th  
(7, 'The Great Wave off Kanagawa', 'The Great Wave off Kanagawa is a woodblock print by the Japanese ukiyo-e artist Hokusai. It was published sometime betw  
(8, 'The Seasons', 'The Seasons is a series of four artworks by Alphonse Mucha, representing spring, summer, autumn, and winter in a series of panels filli  
(9, 'Irises', 'Irises is one of several paintings of irises by the Dutch artist Vincent van Gogh, and one of a series of paintings he made at the Saint Pai
```

## Insertion of sample data into User table:

```
INSERT INTO User
VALUES
(1,'Ananthashayan S', 'Ananth123', 'ananthashayan@gmail.com', 'Ananthashayan', 'S', '2002-08-11', '/path/to/profile_pictures/Ananth.jpg'),
(2,'Vinakayak Mahadev', 'VM@123', 'vinayak@gmail.com', 'Vinayak', 'Mahadev', '2003-04-09', '/path/to/profile_pictures/Vinayak.jpg'),
(3,'Sunil_Kumar', 'SunilK123', 'Sunil@gmail.com', 'Sunil', 'Kumar', '2002-12-17', '/path/to/profile_pictures/sunil.jpg'),
(4,'abdul_mariam', 'Abdul@123', 'abdul@gmail.com', 'Abdul', 'Mariam', '2000-01-20', '/path/to/profile_pictures/abdul.jpg'),
(5,'Sasi_Priya', 'Priya123', 'PriyaSasi@gmail.com', 'Sasi', 'Priya', '2000-01-17', '/path/to/profile_pictures/priya.jpg'),
(6,'John_Durairaj', 'JD@123', 'JDurai@gmail.com', 'John', 'Durairaj', '1996-09-07', '/path/to/profile_pictures/durai.jpg'),
(7,'Tushar_Despande', 'TDespande123', 'Despande@gmail.com', 'Tushar', 'Deshpande', '1997-12-21', '/path/to/profile_pictures/Tushardespande.jpg'),
(8,'Ashwin_Raj', 'AshwinRaj123', 'AshwinRaj@gmail.com', 'Ashwin', 'Raj', '1990-07-03', '/path/to/profile_pictures/Ashwin.jpg'),
(9,'Neha_Sharma', 'nehasharma123', 'nehasharma@gmail.com', 'Neha', 'Sharma', '1995-02-18', '/path/to/profile_pictures/Neha.jpg');
```

## Insertion of sample data into User\_Favorite\_Artwork table:

```
INSERT INTO User_Favorite_Artwork (UserID, ArtworkID)
VALUES
(1,1),
(1,2),
(1,3),
(2,4),
(2,5),
(2,7),
(3,6),
(4,6),
(4,7),
(5,8),
(5,1),
(5,3),
(6,9),
(6,5),
(7,3),
(8,3),
(8,9),
(9,4),
(9,7),
(9,1);
```

## Insertion of sample data into gallery table:

```
INSERT INTO Gallery (GalleryID, Name, Description, Location, Curator, OpeningHours)
VALUES
(1, 'Metropolitan Museum of Art', 'One of the largest and finest art museums in the world, known for its encyclopedic collection from', 'New York City, USA', 'The Met', '10:00 AM - 5:00 PM'),
(2, 'Van Gogh Museum', 'The world\'s largest collection of artworks by Vincent van Gogh, including The Starry Night.', 'Amsterdam, Net', 'The Van Gogh Museum', '9:00 AM - 6:00 PM'),
(3, 'National Gallery of Modern Art', 'Premier art museum in India, showcasing modern and contemporary Indian art.', 'New Delhi, India', 'National Gallery of Modern Art', '10:00 AM - 5:00 PM'),
(4, 'Art Institute of Chicago', 'Major museum in Chicago known for its collection of Impressionist, Post-Impressionist, and American a', 'Chicago, USA', 'Art Institute of Chicago', '10:00 AM - 5:00 PM'),
(5, 'The Dali Museum', 'Museum dedicated to the works of Salvador Dalí, showcasing his surrealist masterpieces.', 'Figueres, Spain', 'The Dali Museum', '10:00 AM - 6:00 PM'),
(6, 'Victoria and Albert Museum', 'World\'s largest museum of decorative arts and design, showcasing a vast collection from all over t', 'London, UK', 'Victoria and Albert Museum', '10:00 AM - 5:00 PM'),
(7, 'Museo Nacional del Prado', 'Spain\'s national museum of art, showcasing Spanish and European art from the 14th to the 19th centur', 'Madrid, Spain', 'Museo Nacional del Prado', '10:00 AM - 8:00 PM'),
(8, 'The Getty Center', 'Art museum showcasing European, Asian, and American art from various periods.', 'Los Angeles, California, USA', 'The Getty Center', '10:00 AM - 5:00 PM'),
(9, 'Rijksmuseum', 'National museum of the Netherlands, housing a vast collection of Dutch Golden Age art, including Rembrandt\'s Nigh', 'Amsterdam, Netherlands', 'Rijksmuseum', '10:00 AM - 6:00 PM'),
(10, 'Louvre Museum', 'One of the world\'s largest and most famous museums, known for its vast collection of artworks, including the M
```



Insertion of sample data into Artwork\_Gallery table:

```
INSERT INTO Artwork_Gallery (ArtworkID, GalleryID) VALUES
(1,1),
(2,1),
(9,2),
(3,3),
(4,4),
(8,5),
(6,6),
(5,7),
(3,8),
(7,9),
(1,10),
(2,10);
```

TABLES:

Artist Table:

ArtistID	Name	Biography
1	Leonardo da Vinci	Leonardo di ser Piero da Vinci was an Italian polymath of the High Renaissance who is widely considered one of the most diversely talented individuals ever to have lived. He was born on April 15, 1452, in Vinci,
2	Frida Kahlo	Frida Kahlo de Rivera was a Mexican painter known for her many portraits, self-portraits, and works inspired by the nature and artifacts of Mexico.
3	Georgia O Keeffe	Georgia Totto O Keeffe was an American artist best known for her paintings of enlarged flowers, New York skyscrapers, and New Mexico landscapes.
4	Gustav Klimt	Gustav Klimt was an Austrian symbolist painter and one of the most prominent members of the Vienna Secession movement.
5	Edvard Munch	Edvard Munch was a Norwegian painter and printmaker whose intensely evocative treatment of psychological themes built upon some of the main tenets of late 19th-century Symbolism.
6	Katsushika Hokusai	Katsushika Hokusai was a Japanese artist, ukiyo-e painter and printmaker of the Edo period.
7	Alphonse Mucha	Alphonse Maria Mucha was a Czech painter, illustrator, and graphic artist, living in Paris during the Art Nouveau period.
8	Vincent van Gogh	Vincent Willem van Gogh was a Dutch Post-Impressionist painter who is among the most famous and influential figures in the history of Western art. He was born on March 30, 1853, in Zundert, Netherlands.

Artwork Table:

ArtworkID	Title	Description	CreationDate	Medium	ImageURL	ArtistID
1	The Last Supper	The Last Supper is a late 15th-century mural painting by Leonardo da Vinci, located in the refectory of the Convent of Santa Maria delle Grazie in Milan, Italy.	1498-01-01	Fresco	https://en.wikipedia.org/wiki/The_Last_Supper...	1
2	Vitruvian Man	The Vitruvian Man is a drawing created by Leonardo da Vinci, depicting a nude male figure inscribed within a circle and a square.	1490-01-01	Ink on Paper	https://en.wikipedia.org/wiki/Vitruvian_Man	1
3	The Two Fridas	The Two Fridas is a painting by Frida Kahlo that depicts two versions of herself, one in European dress and one in Mexican dress, holding hands.	1939-01-01	Oil on Canvas	https://en.wikipedia.org/wiki/The_Two_Fridas	2
4	Blue and Green Music	Blue and Green Music is a painting by Georgia O'Keeffe, depicting a close-up of a blue and green flower.	1921-01-01	Oil on Canvas	https://en.wikipedia.org/wiki/Blue_and_Green...	3
5	The Kiss	The Kiss is a painting by Gustav Klimt, depicting a couple in a romantic embrace.	1907-01-01	Oil and Gold Leaf on Canvas	https://en.wikipedia.org/wiki/The_Kiss_(Klimt)	4
6	The Scream	The Scream is an iconic painting by Edvard Munch, depicting three figures standing on a bridge over a turbulent, red sky.	1893-01-01	Oil, Tempera, and Pastel on Cardboard	https://en.wikipedia.org/wiki/The_Scream	5
7	The Great Wave off Kanagawa	The Great Wave off Kanagawa is a woodblock print by Katsushika Hokusai, depicting a massive wave about to crash over a boat.	1831-01-01	Woodblock Print	https://en.wikipedia.org/wiki/The_Great_Wave...	6
8	The Seasons	The Seasons is a series of four artworks by Alphonse Mucha, depicting the four seasons.	1896-01-01	Color Lithograph	https://en.wikipedia.org/wiki/The_Seasons_(Mu...	7
9	Irises	Irises is one of several paintings of irises by the Dutch Post-Impressionist painter Vincent van Gogh.	1889-01-01	Oil on Canvas	https://en.wikipedia.org/wiki/Irises_(painting)	8

User Table:

UserID	Username	Password	Email	FirstName	LastName	DateOfBirth	ProfilePicture
1	Ananthashayan S	Ananth123	ananthashayan@gmail.com	Ananthashayan	S	2002-08-11	/path/to/profile_pictures/Ananth.jpg
2	Vinayak_Mahadev	VM@123	vinayak@gmail.com	Vinayak	Mahadev	2003-04-09	/path/to/profile_pictures/Vinayak.jpg
3	Sunil_Kumar	SunilK123	Sunil@gmail.com	Sunil	Kumar	2002-12-17	/path/to/profile_pictures/sunil.jpg
4	abdul_mariam	Abdul@123	abdul@gmail.com	Abdul	Mariam	2000-01-20	/path/to/profile_pictures/abdul.jpg
5	Sasi_Priya	Priya123	PriyaSasi@gmail.com	Sasi	Priya	2000-01-17	/path/to/profile_pictures/priya.jpg
6	John_Durairaj	JD@123	JDurai@gmail.com	John	Durairaj	1996-09-07	/path/to/profile_pictures/durai.jpg
7	Tushar_Despande	TDespande123	Despande@gmail.com	Tushar	Deshpande	1997-12-21	/path/to/profile_pictures/TusharDespande.jpg
8	Ashwin_Raj	AshwinRaj123	AshwinRaj@gmail.com	Ashwin	Raj	1990-07-03	/path/to/profile_pictures/Ashwin.jpg
9	Neha_Sharma	nehasharma123	nehaSharma@gmail.com	Neha	Sharma	1995-02-18	/path/to/profile_pictures/Neha.jpg

### User\_Favorite\_Artwork Table:

UserID	ArtworkID
1	1
1	2
1	3
2	4
2	5
2	7
3	6
4	6
4	7
5	8
5	1
5	3

### Gallery Table:

GalleryID	Name	Description	Location	Curator	OpeningHours
1	Metropolitan Museum of Art	One of the largest and finest art museums in th...	New York City, USA	1	Tuesday-Saturday: 10:00 AM - 5:00 PM
2	Van Gogh Museum	The world's largest collection of artworks by Vin...	Amsterdam, Netherlands	8	Daily: 9:00 AM - 6:00 PM
3	National Gallery of Modern Art	Premier art museum in India, showcasing moder...	New Delhi, India	2	Monday-Friday: 10:00 AM - 5:00 PM
4	Art Institute of Chicago	Major museum in Chicago known for its collectio...	Chicago, Illinois, USA	3	Thursday-Tuesday: 11:00 AM - 5:00 PM
5	The Dalí Museum	Museum dedicated to the works of Salvador Dalí...	Figueres, Spain	7	Monday-Friday: 9:00 AM - 7:00 PM
6	Victoria and Albert Museum	World's largest museum of decorative arts and ...	London, United Kingdom	5	Daily: 10:00 AM - 5:30 PM
7	Museo Nacional del Prado	Spain's national museum of art, showcasing Spa...	Madrid, Spain	4	Tuesday-Saturday: 10:00 AM - 8:00 PM
8	The Getty Center	Art museum showcasing European, Asian, and ...	Los Angeles, California, USA	2	Tuesday-Sunday: 10:00 AM - 5:30 PM
9	Rijksmuseum	National museum of the Netherlands, housing a ...	Amsterdam, Netherlands	6	Daily: 9:00 AM - 5:00 PM
10	Louvre Museum	One of the world's largest and most famous mu...	Paris, France	1	Monday-Friday: 9:00 AM - 6:00 PM

### Artwork\_Gallery Table:

ArtworkID	GalleryID
1	1
2	1
9	2
3	3
4	4
8	5
6	6
5	7
3	8
7	9
1	10
2	10

## SUMMARY:

The Documentation for the Virtual Art Gallery Database offers a detailed overview of the database's architecture, configuration, and capabilities for handling artworks, artists, users, and galleries in a virtual gallery setting. This guide discusses the different components of the database, such as its entities, relationships, installation procedures, and data validation.