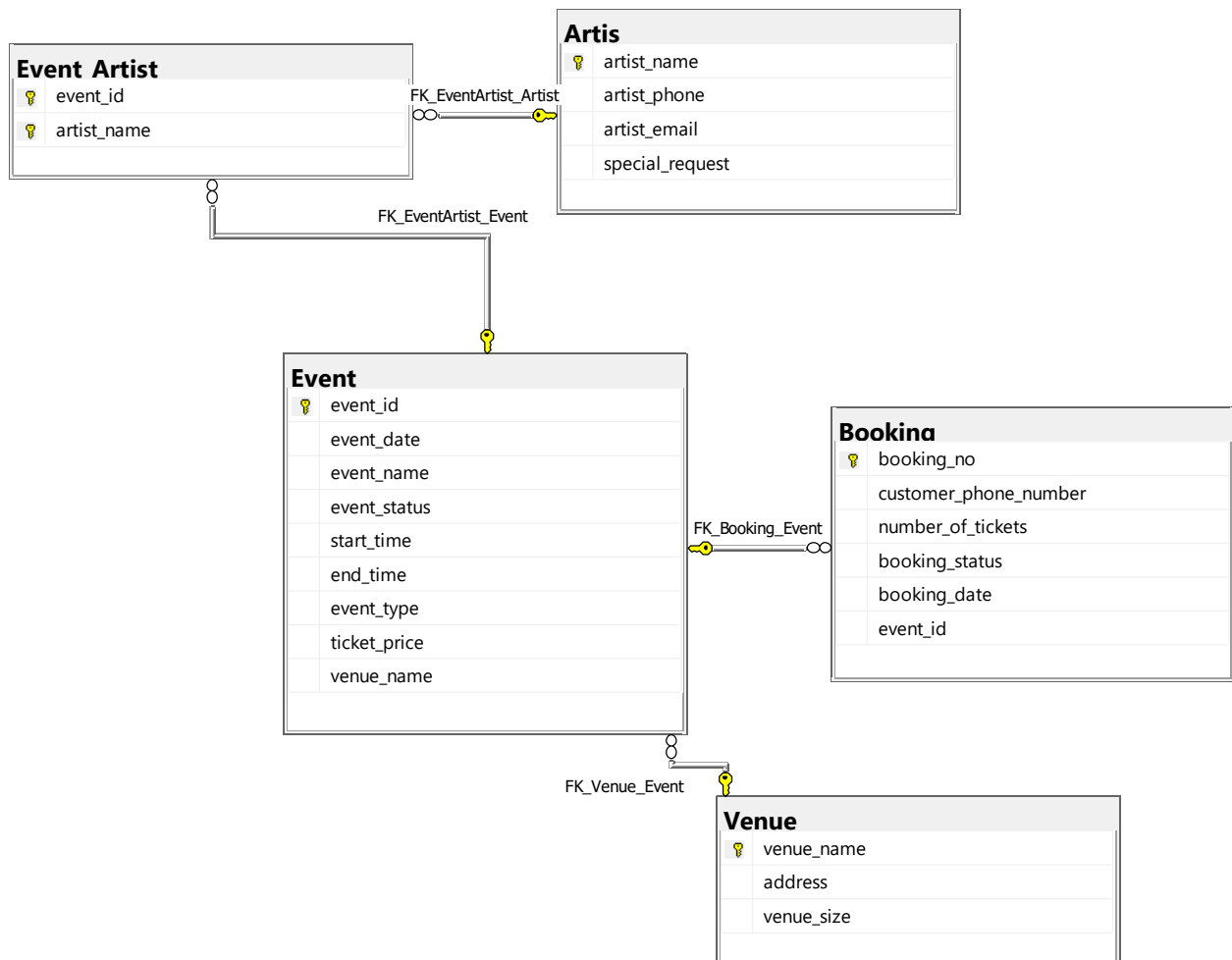


## Case Assignment Test Report and SQL Scripts

### Database Diagram



## Create the database and tables

Creating the tables

--Create tables

```
CREATE DATABASE DM_Case_Assignment_Nurro
--Venue Table CREATE TABLE
Venue ( venue_name VARCHAR(50) NOT NULL PRIMARY KEY, address VARCHAR(50) NOT NULL,
venue_size INTEGER NOT NULL
-- or CONSTRAINT PK_Venue PRIMARY KEY (venue_name)
)

-- Artist Table
CREATE TABLE Artist
(
artist_name VARCHAR(50) NOT NULL PRIMARY KEY,
artist_phone VARCHAR(50) NOT NULL CHECK (artist_phone LIKE '%[0-9]%' ),
artist_email VARCHAR(50), ---CHECK (artist_email LIKE "[a-zA-Z]%%[a-zA-Z]"),
special_request VARCHAR(50)
)

-- Event table
CREATE TABLE Event
(
event_id INTEGER NOT NULL IDENTITY PRIMARY KEY,
event_date DATE NOT NULL,
event_name VARCHAR(50) NOT NULL,
event_status VARCHAR(20) NOT NULL CHECK(event_status = 'cancelled' OR event_status =
'scheduled' OR event_status = 'ended' OR event_status = 'ongoing'),
-- DB check 'Active' or 'Cancelled'
start_time TIME NOT NULL, -- Time format: hh:mm
end_time TIME NOT NULL, -- Time format: hh:mm
event_type VARCHAR(50), --NOT NULL removed, this is not required
ticket_price INTEGER NOT NULL,
venue_name VARCHAR(50) NOT NULL,
CONSTRAINT FK_Venue_Event FOREIGN KEY(venue_name) REFERENCES Venue(venue_name)
)

-- Event_Artist Table
CREATE TABLE Event_Artist
(
event_id INTEGER NOT NULL,
artist_name VARCHAR(50) NOT NULL,
CONSTRAINT PK_Event_Artist PRIMARY KEY (event_id, artist_name),
CONSTRAINT FK_EventArtist_Event FOREIGN KEY(event_id) REFERENCES Event(event_id),
CONSTRAINT FK_EventArtist_Artist FOREIGN KEY(artist_name) REFERENCES Artist(artist_name)
)

--Booking Table
```

```

CREATE TABLE Booking
(
booking_no VARCHAR(50) PRIMARY KEY NOT NULL,
customer_phone_number VARCHAR(20) NOT NULL CHECK (customer_phone_number LIKE '%[0-9]%'),
number_of_tickets INTEGER NOT NULL,
booking_status VARCHAR(20) NOT NULL CHECK(booking_status = 'paid' OR booking_status =
'pending payment' OR booking_status = 'cancelled' OR booking_status = 'refunded'),
booking_date DATE NOT NULL,
event_id INTEGER NOT NULL,
CONSTRAINT FK_Booking_Event FOREIGN KEY(event_id) REFERENCES Event(event_id)
)

```

## Insert data for testing

```
--Populate tables
```

```
-- ARTIST POPULATION--
```

```

INSERT INTO Artist(artist_name, artist_phone, artist_email, special_request) VALUES
('Adele', '077048298', 'management@adele.com', 'vegetarian food'),
('Ed Sheeran', '073318199', 'ed@edsheera.com', NULL),
('Michael Connory', '075618826', 'lisa@unitedtalendagency.com', 'lactose-free products
only'),
('Lady Gaga', '0388372647', 'ladygaga@event.com', NULL)

```

```
--VENUE POPULATION--
```

```

INSERT INTO Venue(venue_name, address, venue_size) VALUES
('Abriachan Village Hall', 'Abriachan Inverness IV3 8LE', 250),
('Craigmonie Hotel', 'Annfield Road Inverness IV2 3HX', 50),
('Strathpeffer Pavilion', 'The Square Strathpeffer IV14 9DW', 800)

```

```
--EVENT POPULATION---
```

```

INSERT INTO Event(event_date , event_name, event_status, start_time, end_time,
event_type, ticket_price,venue_name)
VALUES
('2022-12-5', 'Cats', 'ended', '18:00', '22:30', 'theatre', 100,'Abriachan Village
Hall'),
('2023-7-15', 'Reggae Sun', 'scheduled', '18:00', '23:00', 'festival', 50,'Strathpeffer
Pavilion'),
('2023-4-4', 'Ed Sheeran live', 'scheduled', '19:30', '00:00', 'concert',
200,'Strathpeffer Pavilion'),
('2023-11-9', 'Adele live', 'scheduled', '19:30', '00:00', 'concert', 200,'Craigmonie
Hotel'),
('2023-10-6', 'Michael Connory Break a Leg', 'scheduled', '18:30', '22:00',
'performance', 100,'Craigmonie Hotel'),
('2022-2-1', 'Swan Lake', 'ended', '18:00', '22:30', 'dance performance', 80,'Abriachan
Village Hall'),
('2022-10-5', 'Lady Gaga live', 'ended', '18:00', '22:30', 'concert', 100,'Abriachan
Village Hall')

```

```
select * from event
```

```

WHERE event_date BETWEEN '2022-1-1' AND '2022-12-31'
UPDATE Event
SET event_date = '2023-6-10'
WHERE event_date = '2023-10-6'

```

```

INSERT INTO Event_Artist (event_id, artist_name) VALUES
(11, 'Lady Gaga'),
(6, 'Adele'),
(4, 'Michael Connory'),
(4, 'Lady Gaga'),
(4, 'Adele'),
(9, 'Lady Gaga'),
(7, 'Michael Connory'),
(5, 'Ed Sheeran'),
(8, 'Lady Gaga'),
(8, 'Adele'),
(8, 'Ed Sheeran')

```

--BOOKING POPULATION--

```

INSERT INTO Booking(booking_no,
number_of_tickets,booking_status,booking_date,customer_phone_number,event_id)
VALUES
(1 ,1 , 'paid', '2022-12-2', '046 777 4857',4),
(2 , 1 , 'pending payment', '2021-5-15', '046 788 487',9),
(3 ,1 , 'paid', '2022-12-8', '046 788 8874',8),
(4 ,2 , 'paid', '2022-12-8', '058 855 7878',5),
(5 ,4 , 'cancelled', '2021-1-25', '060 722 1234',7),
(6 ,1 , 'paid', '2022-12-7', '046 235 4567',4),
(7 ,2 , 'pending payment', '2022-12-25', '046 788 8874',8),
(8 ,10 , 'paid', '2022-1-1', '077 789 1274',9)

```

## TEST SCENARIOS:

--test table populations

```

SELECT *
FROM Venue

```

```

SELECT*
FROM Artist

```

```

SELECT *
FROM Event

```

```

SELECT *
FROM Event_Artist

```

```

SELECT *
FROM Booking

```

```

--User transaction tests
--8. What is Ed Sheeran's contact email? -->ed@edsheera.com
SELECT artist_email
FROM Artist
WHERE artist_name = 'Ed Sheeran'

--9. What events are coming up this month?
SELECT event_name
FROM Event
WHERE event_date BETWEEN '2022-12-1' AND '2022-12-31'
--> none
INSERT INTO Event(event_date , event_name, event_status, start_time, end_time,
event_type, ticket_price,venue_name)
VALUES
('2022-12-15', 'Christmas', 'scheduled', '18:00', '23:00', 'concert', 50,'Strathpeffer
Pavilion')

SELECT event_name
FROM Event
WHERE event_date BETWEEN '2022-12-1' AND '2022-12-31'
--> Christmas

--10. Where will Adele's concert take place on 11.9.2023? Venue name and address? -->
Craigmonie Hotel, Annfield Road Inverness IV2 3HX
SELECT Venue.venue_name, Venue.address
FROM Venue
JOIN Event ON (Event.venue_name = Venue.venue_name)
JOIN Event_Artist ON(Event.event_id = Event_Artist.event_id)
WHERE Event.event_date= '2023-9-11' AND Event_Artist.artist_name ='Adele'

--11. What theatre performances are coming up this month? --> Cats
SELECT *
FROM Event
WHERE event_date BETWEEN '2022-12-1' AND '2022-12-31' AND event_type ='theatre'

--12. Which artists will perform in the Reggae Sun event on 15.7.2023? --> Adele, Lady
Gaga, Micheal Connory
SELECT artist_name
FROM Event_Artist
JOIN Event ON (Event.event_id=Event_Artist.event_id)
WHERE Event.event_name= 'Reggae Sun' AND Event.event_date='2023-7-15'

--13. How many tickets are there left for Ed Sheeran's concert on 4.4.2023? --> 798
remaining
SELECT venue_size - SUM(Booking.number_of_tickets) as 'Tickets remaining'
FROM Venue
JOIN Event ON (Event.venue_name = Venue.venue_name)
JOIN Event_Artist ON(Event.event_id =Event_Artist.event_id)
JOIN Booking ON (Booking.event_id = Event.event_id)
WHERE artist_name='Ed Sheeran' AND event_date = '2023-4-4' AND
Booking.booking_status='paid'
GROUP BY Booking.event_id, venue_size

--14. When will Adele perform in Dingwall and what are her special requests for catering?
--> 2023-07-15 vegetarian food - 2023-09-11 vegetarian food - 2022-02-01
vegetarian food

```

```

SELECT event_date, special_request
FROM Event
JOIN Event_Artist ON (Event.event_id = Event_Artist.event_id)
JOIN Artist ON (Artist.artist_name = Event_Artist.artist_name)
WHERE Artist.artist_name = 'Adele'

```

--15. How many tickets have been sold this far to Michael Connory's dance performance Break a Leg that takes place on 10.6.2023? --> 0

```

SELECT SUM(Booking.number_of_tickets) as 'Tickets sold'
FROM Booking
JOIN Event ON (Event.event_id = Booking.event_id)
WHERE event_name='Michael Connory Break a Leg' AND event_date = '2023-6-10' AND
Booking.booking_status='paid'
GROUP BY Booking.event_id

```

--16. How much money has Dingwall Society got from sold tickets this year?

```

SELECT SUM(Booking.number_of_tickets * Event.ticket_price) as 'Income 2022'
FROM Booking
JOIN Event ON (Event.event_id = Booking.event_id)
WHERE event_date BETWEEN '2022-1-1' AND '2022-12-31' AND booking_status = 'paid'

```

--17. Which artist has sold the highest number of tickets this year? Please notice that the artist can have performed several times this year. All the artist's performances count here.

```

SELECT SUM(Booking.number_of_tickets) AS 'Tickets sold', Event_Artist.artist_name
FROM Booking
JOIN Event_Artist ON(Booking.event_id = Event_Artist.event_id)
JOIN EVENT ON (Event.event_id = Booking.event_id)
WHERE booking_status = 'paid' AND Event.event_date BETWEEN '2022-1-1' AND '2022-12-31'
GROUP BY Event_Artist.artist_name
ORDER BY 'Tickets sold' desc

```

--Issue: We cant figure out how to only display the artist with the most tickets but it is listed first and is Lady Gaga with 11 tickets sold