## 1.1 ER diagram
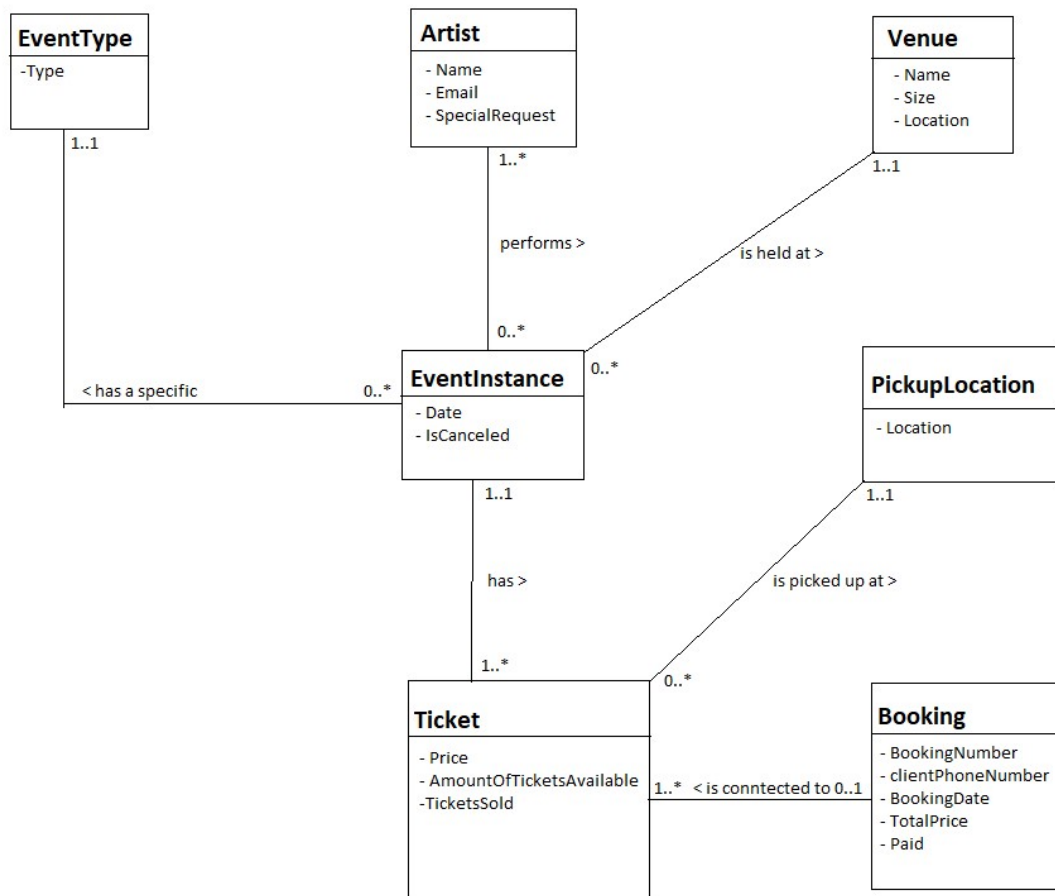


## 1.2 Relational schema

(Foreign keys in grey, primary key in green)

EventType (EventTypeID, type (concert, dance, theatre))

EventInstance (EventInstanceID, EventTypeID, date, ArtistID, isCanceled, VenueID)

Artist (ArtistID, name, email, specialRequests)

Ticket (TicketID, EventInstanceID, price, amountOfTicketsAvailable, ticketsSold)

Booking (bookingNumber, clientPhoneNumber, TicketID, bookingdate, PickUpLocationID, totalPrice, paid)

PickupLocation (PickupLocationID, Location (Hobart town house, Hobart library))

Venue (VenueID, name, size, location)

## 1.3 Repository

**ENTITY TYPE DESCRIPTIONS**

| ENTITY TYPE | Description | Synonyms, aliases | Occurrence |
|---|---|---|---|
| EventType | Dance, music or theatre | event | Several a year |
| Artist | A performer on one or more of the events | Musician, dancer, actor | Can participate in 1 or more events |
| Venue | The place where an event is held | Location, stage | Events use venues to hold their performances |
| EventInstance | Specific instance of an event | Event | Several a year |
| PickupLocation | Place where the ticket is picked up. Either at Hobart town house or Hobart library | Ticket pickup location | As many as tickets? I don't understand what I'm supposed to write here. |
| Ticket | Grants entrance to a specific event | | |
| Booking | Contains all info on event type, date, artists, price, paid and customer phone nr. May contain several tickets | | |

**ATTRIBUTE TYPE DESCRIPTIONS**

**EventType**

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Type | Specifies event type | Text | Yes | - | Dance, music, theatre |

## Venue

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Size | The place where an event is held when completing the brevet | Integer | Yes | - | 80, 100, 200, 400, 700 |
| Name | The name of the venue | Text | Yes | - | - |
| Location | The address of the venue | Text | Yes | - | - |

## Artist

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Name | Artist name | Text | Yes | - | |
| Email | Artist email | Text | Yes | - | Valid Email |
| SpecialRequest | Artists wishes e.g. foods and drinks | Text | No | - | |

## EventInstance

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Date | When the event is held | Date | Yes | - | |
| IsCanceled | To know when an event is cancelled | Boolean | Yes | - | |

## PicupLocation

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Location | Address of pickup location for the tickets | Text | Yes | - | Hobart town house, Hobart library |

**Ticket**

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| Price | Price of a ticket | Integer | Yes | - | |
| AmountOfTicketsAvailable | Number of tickets still available | Integer | Yes | - | |
| TicketsSold | Number of tickets sold | Integer | Yes | - | |

**Booking**

| Attribute type | Description | Data type | Value required | Identity attribute or part of it | Special domain |
|---|---|---|---|---|---|
| BookingNumber | Booking number | Text | Yes | - | |
| ClientPhoneNumber | Client's phone number | Text | Yes | - | Valid phone number format |
| BookingDate | Date of booking | Date | Yes | - | |
| TotalPrice | Total price of a booking | Integer | Yes | - | |
| Paid | Keeps track wether the booking is paid or not | Boolean | Yes | - | |

# Some sample SQL queries I used for testing

### What dance performances are coming up this month?

```sql
SELECT *
FROM EventInstance
JOIN EventType ON (EventInstance.eventTypeId = EventType.eventTypeId)
WHERE type = 'dance'
```

### What is Alexi Laiho's contact email?

```sql
SELECT email
FROM Artist
WHERE name = 'aleksi laiho'
```

### What events are coming up this month? Where are these events held?

```sql
SELECT type, Artist.name AS 'Artist', Venue.name AS 'Venue', date, location
FROM EventInstance
JOIN Venue ON (EventInstance.venueID = Venue.VenueID)
JOIN EventType ON (EventInstance.EventTypeID = EventType.EventTypeID)
JOIN Artist ON (EventInstance.ArtistID = Artist.ArtistID)
Where DATENAME(month, date) = DATENAME(month, GETDATE())
```