Hellsten Lin 1802521
Data Management and Databases
SWD4TF003-3002   2 May 2019
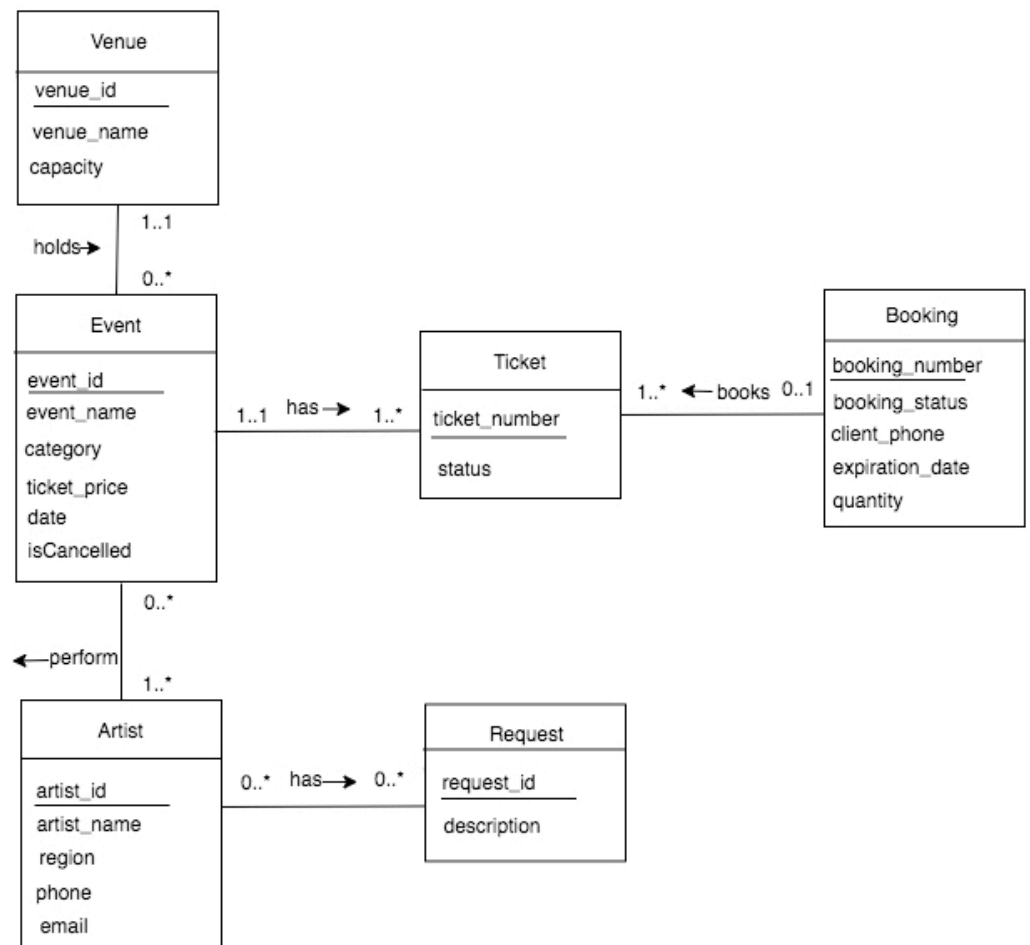HAAGA-HELIA University of Applied Sciences

DM / DATABASE TRANSACTION HOMEWORK

Team Member:

Hellsten Lin
Mingyang Wang

Working Time:

Tasks	Hellsten Lin	Mingyang Wang
ER Diagram	2 hours	2 hours
Respository	2 hours	2 hours
Relational schema	0.5 hour	0.5 hour
Validate the relations	0.5 hour	0.5 hour
Define integrity constraints & Fill them in repository	1 hour	1 hour
Total	6 hours	6 hours

ER Diagram:

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Entity Type Descriptions

Entity type	Description	Synoyms,aliases	Occurrence
Venue	A place to hold events.	Room	Two venues now, may have more in the future.
Event	Concerts, dance and theatre etc. holds by Kuru Culture Club	Performance, concert, dance, theatre	An event can include different performances and artists.
Artist	People are invited to perform in the event	performer	An event can include various artists.
Request	Special request for catering and re-freshments	Catering, refeshments	One artist may have several requests.
Booking	Tickets can be booked online first, then pay and take tickets from library	Booked	Booking can be cancelled before pay for it.
Ticket	Buy tickets to see events		Tickets can be bought directly or booked online then pay it.

Relational schema

Venue(<u>venue_id</u>, venue_name, capacity)

Artist(<u>artist_id</u>, artist_name, region, phone, email)

Request(<u>request_id</u>, description)

Artist_Request(<u>artist_id, request_id</u>)
        FK(artist_id) REFERENCE Artist(artist_id)
        FK(request_id) REFERENCE Request(request_id)

Event(<u>event_id</u>, event_name, category, ticket_price, date, isCancelled, venue_id)
        FK(venue_id) REFERENCE Venue(venue_id)

Event_Artist(event_id, artist_id)
        FK(event_id) REFERENCE Event(event_id)
        FK(artist_id) REFERENCE Artist(artist_id)

Booking(<u>booking_number</u>, booking_status, client_phone, expiration_date, quantity)
        FK(event_id) REFERENCE Event(event_id)

Ticket(<u>ticket_number</u>, ticket_status, booking_number, event_id)
        FK(event_id) REFERENCE Event(event_id)
        FK(booking_number) REFERENCE Booking (book-
ing number)

Mingyang Wang 1600636   **DM Case Design**   3 (4)
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Repository

TABLE DESCRIPTIONS

Venue

Attribute type	Description	Data type	Value required	Keys	Special domain
venue_id	Unique id of the venue	INTEGER	Yes	Primary Key	-
venue_name	Name of the venue	VARCHAR(255)	Yes	-	-
capacity	Maxmium available in the venue	INTEGER	Yes	-	70, 3500

Artist

Attribute type	Description	Data type	Value required	Keys	Special domain
artist_id	Unique id of the artist	INTEGER	Yes	Primary Key	-
artist_name	Name of artist	VARCHAR(50)	Yes	-	-
region	'FIN'= Finland 'FOR'= Foreign	CHAR(3)	Yes	-	'FIN', 'FOR'
phone	Phone number of artist	VARCHAR(20)	No	-	-
email	Email address of artist	VARCHAR(255)	Yes	-	-

Request

Attribute type	Description	Data type	Value required	Keys	Special domain
request_id	Unique id of the request	INTEGER	Yes	Primary Key	-
description	Requests for catering and refreshments	VARCHAR(255)	Yes	-	-

Artist_Request

Attribute type	Description	Data type	Value required	Keys	Special domain
artist_id	Unique id of the artist	INTEGER	Yes	IN Primary Key Foreign Key 1=> Artist	-
request_id	Unique id of the request	INTEGER	Yes	IN Primary Key Foreign Key 2 => Request	-

Event

Attribute type	Description	Data type	Value required	Keys	Special domain
event_id	Unique id of the event	INTEGER	Yes	Primary Key	-
event_name	Name of the event	VARCHAR(255)	Yes	-	-
category	Performance category	VARCHAR(255)	Yes	-	-
ticket_price	Same price of an event	NUMERIC	Yes	-	-
date	The date of the even take place	DATE	Yes	-	-
isCancelled	If the enent is cancelled	CHAR(1)	Yes	-	'Y','N'
venue_id	Unique id of the venue	INTEGER	Yes	Foreign Key	-

Event_Artist

Attribute type	Description	Data type	Value required	Keys	Special domain
event_id	Unique id of the event	INTEGER	Yes	In Primary Key Foreign Key 1 => Event	-
artist_id	Unique id of the artist	INTEGER	Yes	In Primary Key Foreign Key 2 => Artist	-

Booking

Attribute type	Description	Data type	Value required	Keys	Special domain
booking_number	The unique number of a booking	INTEGER	Yes	Primary Key	-
booking_status	The status of a booking: Cancelled, sold, booked	VARCHAR(10)	Yes	-	'cancelled', 'booked', 'sold'
client_phone	The phone number of client who make the booking	VARCHAR(20)	No	-	-
expiration_date	Three days after the date when the booking take place	DATE	Yes	-	-
quantity	The quantity of tickets in the booking	INTEGER	Yes	-	-

Ticket

Attribute type	Description	Data type	Value required	Keys	Special domain
ticket_number	The unique number of a ticket	INTEGER	Yes	Primary Key	-
ticket_status	The status of the ticket: sold, booked, available,refunded	VARCHAR(10)	Yes	-	'booked', 'sold', 'available', 'refunded'
booking_number	The unique number of a booking	INTEGER	No	Foreign Key	-
event_id	Unique id of the event	INTEGER	Yes	Foreign Key	-