

### The Project 2 Conceptual Database Design

## $\mathbf{BY}$

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# A Senior Project Submitted in Partial Fulfillment of The Requirements for

ITCS413 Database Design

# THE DEGREE OF BACHELOR OF SCIENCE (INFORMATION AND COMMUNICATION TECHNOLOGY)

Faculty of Information and Communication Technology Mahidol University

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#### **Data Requirements/ User Requirements**

In the concert management system, at Occasion Organizer, the administrator assigns permissions for website access and resources within the system. This requires data specifying names, emails, and passwords for logging in and overseeing the website for selling concert tickets. Additionally, the administrator can change events, delete, or add ones well, and access and export reports on ticket sales and revenue.

Each person >> customer buying a ticket or taking part in the ticket-buying process must identify an email, username, password, phone number, and address and have a unique ID. The individual can create an account on the site, explore and look for events, choose and reserve >> buy tickets, and make payments online. Moreover, they can provide feedback on the events they've attended by giving ratings and reviews.

Afterward, the concert organizer was tasked with organizing and overseeing the event, such as <a href="choosing">contact</a> artists and working closely with sponsors and mail carriers. As a result, a roster of sponsors should consist of names and phone numbers along with details regarding product backing for the concert. The organizer can contact and negotiate with sponsors and record and track their agreements and contributions. Additionally, they can send invoices and receipts to the sponsors while expressing gratitude for their assistance.

When artists agree to participate, the organizer must gather their names, contact details, past performances, fees, and agreements. And arrange and confirm the performance details, such as the duration, the order, and the equipment.

Once all the details are documented and confirmed, the organizer will review them to set the date and time for the concert. Factors like artist availability, venue capacity, audience demand, weather conditions, budget, and profit are considered to determine the optimal date and time for the concert. Therefore, it can be made and notifications sent out to all parties.

Once all parties approve, the event organizer will forward the details to the system administrator. The system administrator will then set up the event and arrange ticket sales for the concert. This includes creating and customizing the event page on the website, such as seating arrangements, zones, and concert details. Moreover, tickets must include price, name, date, time, venue, and artist. Additionally, they control turning ticket sales on or off and oversee inventory and transactions related to ticket sales.

When individuals start buying concert tickets through the platform, they need to indicate their payment options and decide whether to collect them in person or send them via mail. The platform supports payment methods, like credit cards, debit cards, and bank transfers, ensuring efficient payment processing. Moreover, it can send confirmation and reminder emails to purchasers and QR codes or barcodes for ticket validation through scanning.

If some participants opt for delivery, the system admin needs to note down and share the details with the organizer to arrange postal services. These details comprise the purchaser's name, address, contact number, ticket specifics, delivery charges, and tracking ID. The organizer can utilize this information to print tickets,

pack them securely, attach labels, and send them out via post. They can also monitor the delivery progress and address any concerns or complaints during transit.

### Transaction requirement specifications

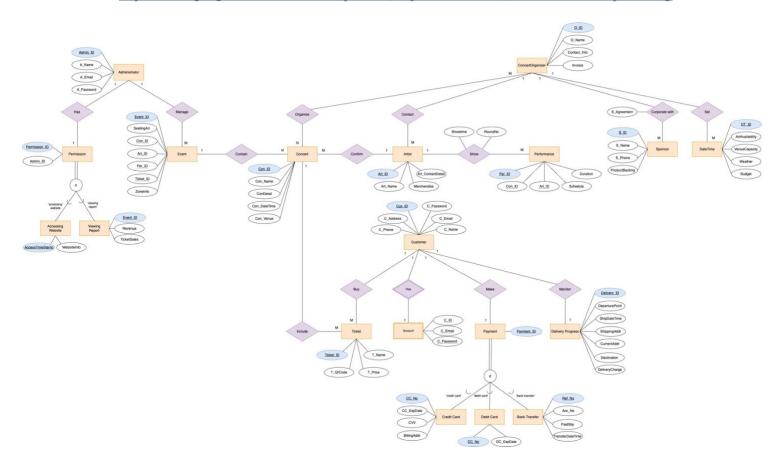
- 1. Sponsor Financial Support: Facilitating sponsor contributions for financial aid.
- 2. Artist Performance Compensation: Ensuring adequate fees for artists' performances.
- 3. Attendee Ticket Purchases: Streamlining the process for attendees to purchase tickets.

Requirement	User	Data Item	Operation
Sponsor financial aid	Sponsor	Financial Aid Amount	Process transaction, Contribute concert
Attendee Ticket Acquisition	Attendee	Ticket	Process transaction, Receive ticket
Artist Contract Income	Artist	Performance fees	Receive Performance Fee

## ERD represents the conceptual data model

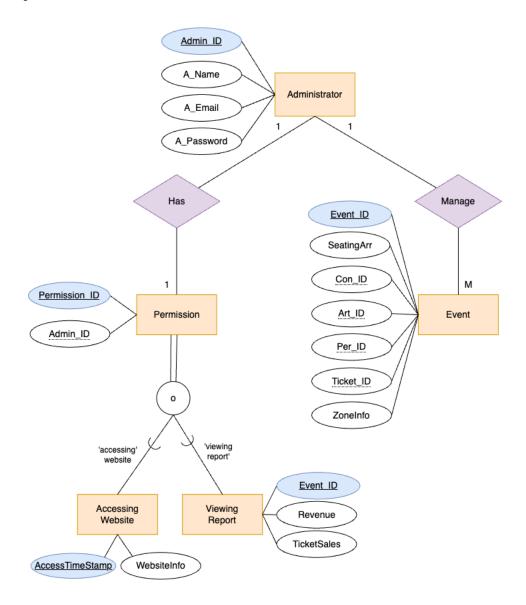
P.S. This picture of the diagram may not contain the best quality. Then, we attached the pdf version of this diagram file or you can access this draw.io link on Chrome.

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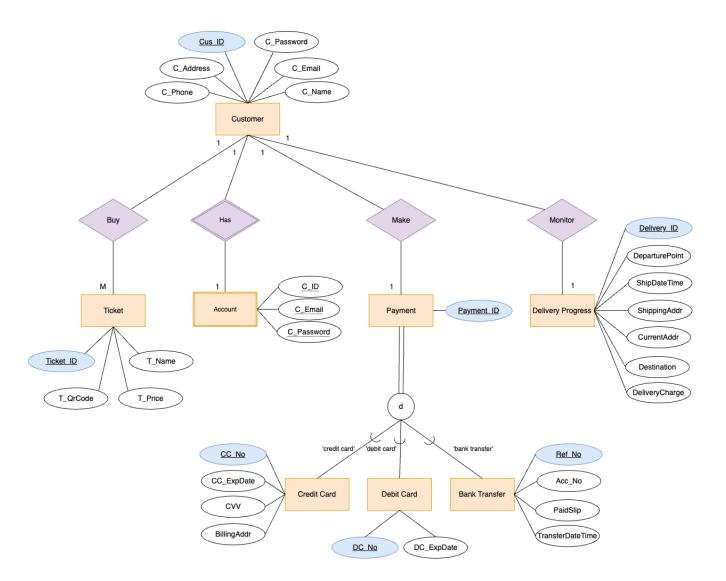


### **Pathway**

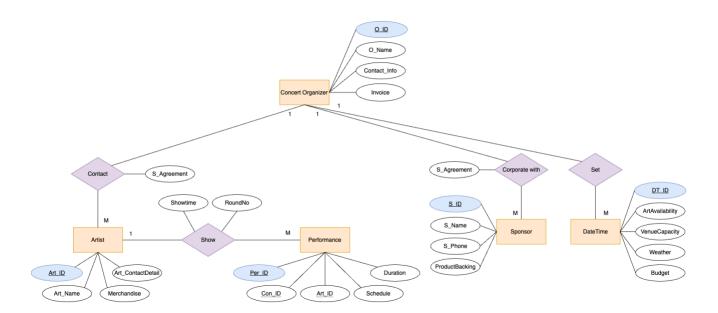
1. An administrator has permission to access the website and view the report including revenue and ticket sales. Moreover, an administrator can manage the event such as edit, delete, and add. For the event information, each event must consist of the event ID, seating arrangement, concert ID, artist ID, performance ID, ticket ID, and zone information.



2. A customer must have an account to buy a ticket. To buy the ticket, a customer must pay by one preferred channel, for example, credit card, debit card, and bank transfer. In the case of ticket delivery, a customer can track the delivery progress from the departure point until the destination. For the ticket, each ticket must contain the ticket ID, ticket name, ticket price, and ticket QR-Code.



3. To discuss an agreement for creating a concert with an artist, a concert organizer contacts an artist for a meeting setting a date and time, checking the artist's availability and weather, and brainstorming on venue capacity for a concert. After that, the concert organizer cooperated with some sponsors to discuss product backing. An artist shows 1 or more performances on the concert day because some events may be festival events. Therefore, an artist can show their performance many times. On the concert day, the artist can bring their merchandise to sell at the venue.



4. An event containing a concert/concerts which consists of concert ID, concert name, concert detail, concert date and time, and concert venue including selling tickets is organized by the concert organizer.

