

Major user views

1. Customers:

People who want to attend events and purchase tickets.

Data and Information Requirements:

- **Events Information:** Access to a list of upcoming events, including details like name, date, and location.
- **Ticket Availability:** Real-time information on ticket availability, seat options, and prices.
- **Order History:** View past ticket purchases and transaction details.
- **Personal Information:** Manage their user profile such as their contact details.

2. Event Organizers:

Staff responsible for creating, managing, and selling events.

Data and Information Requirements:

- **Event Schedule:** View and manage the schedule of upcoming events at their respective venues.
- **Seating Information:** Access seating charts, capacity details, and tickets assigned for each event.
- **Ticket Sales Reports:** Generate reports on ticket sales, revenue, and attendance for each event.
- **Venue Details:** Manage information about the venue, including address, facilities, and contact details.

3. System Administrators:

IT personnel responsible for maintaining and managing the overall ticket ordering system.

Data and Information Requirements:

- **User Management:** Administer user accounts, roles, and permissions.
- **System Performance Metrics:** Monitor overall ticket ordering system.
- **Security Audits:** Review and manage security measures, including access logs and potential weaknesses.
- **System Configuration:** Configure and update system parameters, such as pricing rules and business logic.

Scope of Database Application

Problem domain:

Traditional ways of selling tickets, such as physical box offices, retail outlets, or even phone-based sales, can present various challenges for individuals attending concerts and events. Some common problems associated with traditional ticketing methods include:

Limited accessibility to points of sale, limited operating hours at points of sale, long queues and waiting time, risk of counterfeit tickets, theft of tickets, lack of information on events, unfair reselling prices (also called ticket scalping), no option to choose seats which can cause problems when ordering multiple tickets for a group.

The focus of our ticket ordering system will be to solve the problem of ticket scalping by creating a ticket ordering system that implements limits on tickets and by acting as the middleman between customers and organisers instead of the usual ticket resellers. It will only allow event organisers to sell tickets directly to the customers. However, our ticket ordering system will also help improve the other problems associated with traditional ways of selling tickets.

Business Rules:

Event creation:

Events can only be created by the event organisers, and it is mandatory that they provide an event name, date, venue, and a description of the event.

Venue management:

The system will keep a record of the venues that contain details about the name, location, capacity, and availability of seats.

One venue can be assigned to multiple events as long as there is no clash in the dates.

Performers management:

Events will have performers and the system will need to keep details about the performers such as their names and a description.

Payment processing:

The system will need to keep track of payments made by customers and this includes details such as their names, card details and amount paid.

Seat selection:

The system will store different types of seats and their location so that customers can order the tickets they want.

Ticket purchase:

Customers need to have their information recorded in the system before they can order a ticket. This includes their full name, phone number, date of birth, email address and home address.

Reviews:

Customers are able to put in reviews after they have attended the event that they purchased tickets for. These reviews will include a star rating and a comment.

User roles:

There will be three different types of users: customers, event organizers and system administrators. Each type of user roles has their own specific set of permissions.

Purchase limit:

There will be a **limit on purchases** per person so as to prevent bulk buying and reselling by the customers.

The limit will be set to four tickets per person.

Order review:

Customers will receive an order confirmation with the details of their order.

Bug reporting:

Customers and event organizers may experience difficulty using the system. The report is meant for customers and event organizers to inform system administrators of the problem they faced. Once administrators complete it, the status of the report should be changed.

Conceptual Design

