

Middleware Project

With the savings from your summer jobs, you decided to buy an old theater and to transform it into a concert hall. Now is the time for you to develop your online application that will allow people to book tickets.

Since it is an old theater, with balconies and different seating positions, you decided to create 4 categories of seats : A,B,C & D :

- A: 3*regular price, 25 seats, numbered A1 to A25
- B: 2,5*regular price, 45 seats, numbered B1 to B45
- C: 2*regular price, 100 seats, C1 to C100
- D (the pit): regular price, 500 places, D1 to D500

The events that will be held in your venue do not have the same, some will be minor and other will include major artists. As you don't a price per event because it is too complicated, you decided to categorize the events into the following categories :

- C1: Local artists, regular price : 5€
- C2: Low aura national artists, regular price : 10€
- C3: Major national artists, regular price : 20€
- C4: Major international artists, regular price : 50€

Part I : all students

Your application must:

1. represent and store events in the database (artistname, date, category)
2. user can book a ticket event via the following pipeline :
 - a. choose event, sold out events must be noted as such
 - b. choose category, sold out categories must be noted as such
 - c. choose a seat among available seats, only one seat per booking
 - d. Pay : simulate a simple credit card payment, just a number

For this version, you can have two people simultaneously choosing the same seat, you will then have a transaction error, just send the user back to point (b).

Part II : All but EMSE Students

In this part, we add the user registration :

1. allow users to register (name, password, email ; you don't have to send emails)
2. Log in
3. Log out

Your application must allow user to book many places per event, either in one or multiple booking requests. You must limit these booking at 4 tickets per account per event.

Whenever a user choose a seat at point (d), you will lock the seat(s) for 5 minutes. If the booking has not been properly completed, the seat(s) becomes available again.

Finally, an admin will be able to log in an see how many places are booked for a given event, and this, per category :

A : 12/25

B : 0/45

And to see the total of earnings since the beginning of universe.