

Lab Report 07

Problem

Write a program that keeps track of a concert's information and stats.

Proposed Solution

Class - Concert	
<u>Constructors</u>	
Concert()	
Concert(int, int, double, double)	
Concert(String, int, double, double)	
<u>Fields</u>	
Capacity - int	
<u>Methods</u>	
totalSales()	
totalNumberofTicketsSold()	
ticketsRemaining()	
buyTicketsAtVenue(int)	
buyTicketsByPhone(int)	
<u>Properties</u>	
priceAtVenue	
numTicketsSoldByPhone	
capacity	
the-price-of-a-ticket-by-phone	
the-price-of-a-ticket-at-the-venue	
numTicketsSoldAtVenue	
bandName	
priceByPhone	

Tests and Results

```
terminated: ConcertPromoter [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Nov 3, 2022, 5:20:33 PM ~ 5:21:01 PM) [pid: 8636]
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
1
Enter the name of the band
wow
Currently the concert featuring the band: wow
Has sold 0 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
2
Enter the new price by phone
999
Currently the concert featuring the band: wow
Has sold 0 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
3
Enter the new price at the venue
100000
Currently the concert featuring the band: wow
Has sold 0 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
0
```

```
Problems JavaDoc Declaration Console x
ConcertPromoter [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Nov 3, 2022, 5:17:49 PM) [pid: 420]
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
8
Enter the new capacity
10
Currently the concert featuring the band: no
Has sold 0 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
4
Enter a number of tickets to add by phone
8
Currently the concert featuring the band: no
Has sold 8 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
6
The number of tickets remaining are 2
Currently the concert featuring the band: no
Has sold 8 tickets by phone
Has sold 0 tickets at the venue
And has grossed $0.0
What would you like to do?
Enter 1: To change name
Enter 2: To change ticket by phone price
Enter 3: To change ticket at venue price
Enter 4: To add tickets by phone
Enter 5: To add tickets at the venue
Enter 6: To find out how many tickets are remaining
Enter 7: To find out how many total tickets have been sold
Enter 8: To change the venue's capacity
Enter 9: To start a new concert
Enter 0: To Quit
```

Problems Encountered

With so much code I kept forgetting to add semi colons. I also had a slight struggle with the names of variables.

Conclusions and Discussion

This lab strengthened my understanding of classes and how two different programs can be integrated.

Additional Questions

1. Draw a UML diagram to represent the Concert class in the proposed solution section.

DONE!

2. How can you distinguish 2 overloaded methods?

Signatures are used to distinguish overloaded methods. A signature is a combination of the method's *name* and the *number*, *types* and *order* of its parameters