

Lab - 7

Concert Promotion

Task:

Write a class that keeps track of concert promotion information.

- First download **ConcertPromoter.java** (contains the main method) and put it in your project
 - Notice that this file has all of the dialog outputs and user inputs already written.
 - Do NOT modify ConcertPromoter.java
- Create a class called **Concert** that DOES NOT HAVE a main method
- Some of the attributes of Concert are
 - Name
 - Capacity
 - Number of Tickets Sold By Phone
 - Number of Tickets Sold At the Venue
 - The price of a ticket by phone
 - The price of a ticket at the venue
- Create the following Constructors
 - Default – sets everything to default values
 - One that has the parameters (in this order)
 - Band name
 - Capacity
 - Price by phone
 - Price at the venue
 - One that has parameters (in this order)
 - BandName
 - Capacity
 - Number of Tickets Sold By Phone

- Number of Tickets Sold At the Venue
- The price of a ticket by phone
- The price of a ticket at the venue
- Accessors and Mutators for each variable
 - Make sure the mutators check for valid values.
- Create the following Methods
 - `totalNumberOfTicketsSold`
 - No parameters
 - Returns the value of the phone tickets plus the venue tickets
 - `ticketsRemaining`
 - No parameters
 - Returns the value of the capacity minus the total number of tickets sold
 - `buyTicketsAtVenue`
 - 1 parameter that corresponds to the number of tickets being bought
 - returns nothing
 - `buyTicketsByPhone`
 - 1 parameter that corresponds to the number of tickets being bought
 - returns nothing
 - `totalSales`
 - No parameters
 - Returns the value of the ticket at the venue times the number of tickets sold at the venue, plus the tickets by phone times the price of a phone ticket

Sample Output:

Welcome to the Concert Promotion tool!

Currently the concert featuring the band No name yet

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

1

Enter the name of the band

Bob's Band

Currently the concert featuring the band Bob's Band

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

8

Enter the new capacity

500

Currently the concert featuring the band Bob's Band

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

5

Currently the concert featuring the band Bob's Band

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

10

Currently the concert featuring the band Bob's Band

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

300

Currently the concert featuring the band Bob's Band

Has sold 300 tickets by phone

Has sold 0 tickets at the venue

And has grossed \$1500.0

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

5

Enter a number of tickets to add at the venue

200

Currently the concert featuring the band Bob's Band

Has sold 300 tickets by phone

Has sold 200 tickets at the venue

And has grossed \$3500.0

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

50

The concert is sold out!

Currently the concert featuring the band Bob's Band

Has sold 300 tickets by phone

Has sold 200 tickets at the venue

And has grossed \$3500.0

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

Lab Submission:

- Make sure to include comments within your code.
- Compress all .java files into a single folder
- Upload the compressed folder on Dropbox by **11:59 pm** on **Wednesday, 26th October 2022**.

Lab Report Submission:

- First, download the *Lab Report Template* document on Dropbox.
- Use this template to complete your lab report.
- **Lab Report Questions:**
 1. Draw a UML diagram to represent the *Concert* class in the proposed solution section.
 2. How can you distinguish 2 overloaded methods?
- Upload *LabReport07.pdf* on Dropbox by **11:59 pm** on **Wednesday, 2nd November 2022**.