Programs for this lab should be stored in your Eclipse repository. Create a new Java project in your workspace called lab C. Remember to use a location on your P: drive or a USB drive (not the C: drive). When your programs are running correctly, turn in a printout of the Java code and send an email containing your .java files for each program in lab C (as *separate* file attachments) to the instructor at stlauterburg@salisbury.edu with the subject line "COSC 117 Lab C".

Problem 1

Create a program called **TicketSelector** that allows a user to reserve seats for a ballet performance. Users should be allowed to reserve as many seats as they want. If they try to select a seat that has already been reserved, the program

The venue for the performance organizes its seats into multiple **sections**. Each section is made up of multiple **rows**. And each row consists of multiple **seats**. The seating plan for the event should be represented as a ***three-dimensional array*** of integers, where the dimensions correspond to sections, rows and seats. A value of 0 in an array cell indicates that the seat is available, whereas a value of 1 indicates that the seat is already reserved. Most of the code can be written in the main method. The one exception is that the program should use a separate method to print the seating chart. This method does not need to return anything and should accept only a single parameter – a three-dimensional array of integers.

Sample run 1:

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0

Specify a seat to reserve...
  Section Number? 1
  Row Number? 3
  Seat Number? 6

0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 1 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0

Do you want to reserve another seat? yes
Specify a seat to reserve...
  Section Number? 1
  Row Number? 3
  Seat Number? 5

0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 1 1 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

Do you want to reserve another seat? no
Your reservation has been processed.
Thanks for doing business with Nick's Auto Repair and Ballet Theatre!

Sample run 1:

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

Specify a seat to reserve...
   Section Number? 0
   Row Number? 1
   Seat Number? 1

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 1 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

Do you want to reserve another seat? yes
Specify a seat to reserve...
   Section Number? 0
   Row Number? 1
   Seat Number? 1

That seat is not available.

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 1 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

Do you want to reserve another seat? yes
Specify a seat to reserve...
   Section Number? 0
   Row Number? 1
   Seat Number? 2

```
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 1 1 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0     0 0 0 0 0 0 0 0 0
```

```
0 0 0 0 0 0 0 0 0      0 0 0 0 0 0 0 0 0      0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0      0 0 0 0 0 0 0 0 0      0 0 0 0 0 0 0 0 0
```

```
Do you want to reserve another seat? no
Your reservation has been processed.
Thanks for doing business with Nick's Auto Repair and Ballet Theatre!
```