



Project 7: Ticket_Booth_0

Using XML



Ticket Booth 0

- Base Level 0 of the real Ticket Booth program.
- Gets information for a single venue from an XML file.
- Instantiates a venue object.
 - See class diagram on a later slide.
- Displays results by calling the venue object's Display method.



Reuse Code

- Reuse classes from the previous projects as appropriate.
 - You will need to modify some of them.
 - Each class should have a Display method.
 - OK to use code from posted solutions.
- Reuse code from the class example, Test_Venue.
 - tinyxml should be used unchanged.
 - Modify boundary class Venue_from_Xml to meet the requirements of this project.
 - Instantiate objects rather than just displaying information.
 - Delete outputs when program is working



Program Specifications

- Program should use C++ strings rather than C strings.
- Seat should be a class.
 - A seat knows its row name, its seat number, and its section name.
 - Knows how to display itself.



Class Venue

- A Venue has a collection of Seat_Rows and a collection of Sections.
- Each Seat object will be in one Seat_Row and one Section



Class Seat_Row

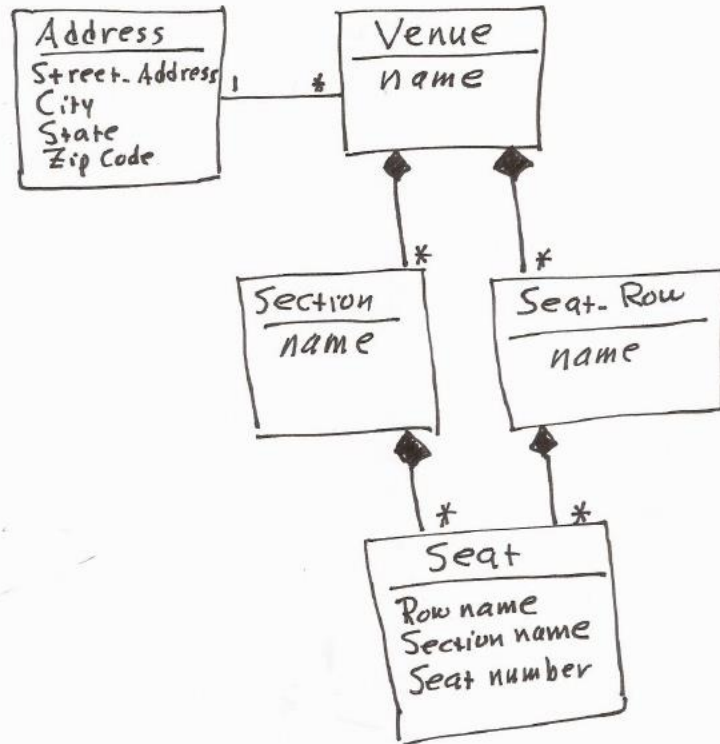
- A Seat_Row object should have a collection of Seat objects.
 - Don't assume numbers are consecutive.
- Class Seat_Row will need an Add_Seat method.
 - Initialize Seat_Row with no seats.
 - Maximum of 1000 seats in a row.
- Class Seat_Row should have a Display method.



Class Section

- A Section object should have a collection of Seat objects.
 - Don't assume numbers are consecutive.
 - Don't assume all seats are in the same row.
- Class Section will need an Add_Seat method.
 - Initialize Section with no seats.
 - Maximum of 1000 seats in a row.
- Class Section should have a Display method.

Class Diagram



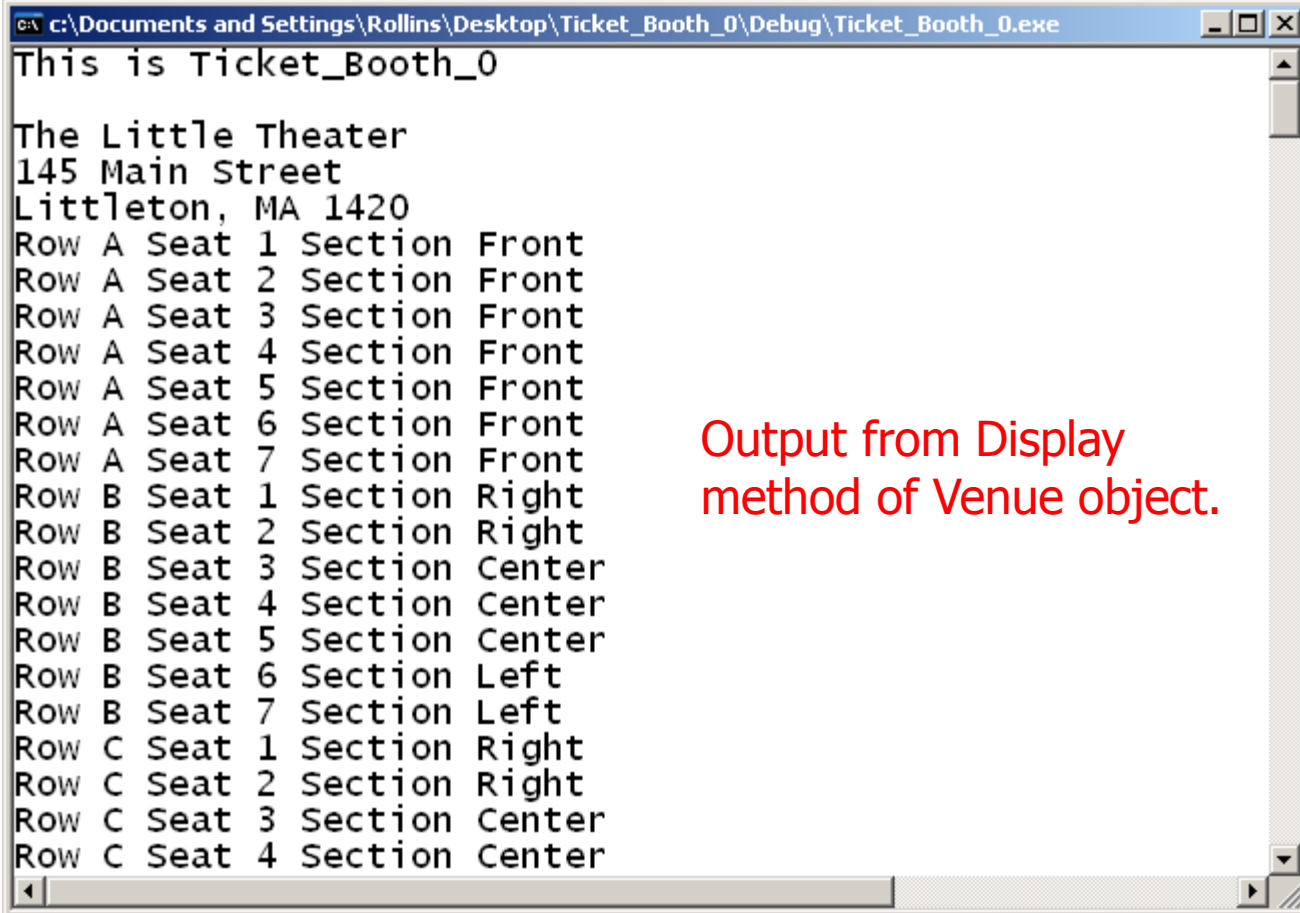


Sample Input File

[http://www.csee.usf.edu/~turnerr/Object Oriented Design/Downloads/2016 03 01 XML/Venue.xml](http://www.csee.usf.edu/~turnerr/Object%20Oriented%20Design/Downloads/2016_03_01_XML/Venue.xml)

- Don't hard code information about the venue.
 - Other than maximum values.
- Everything that the program knows about the venue (beyond what is shown in the class diagram) should come from the XML file.
- The program should work with *any* valid XML file of this form.

Expected Output

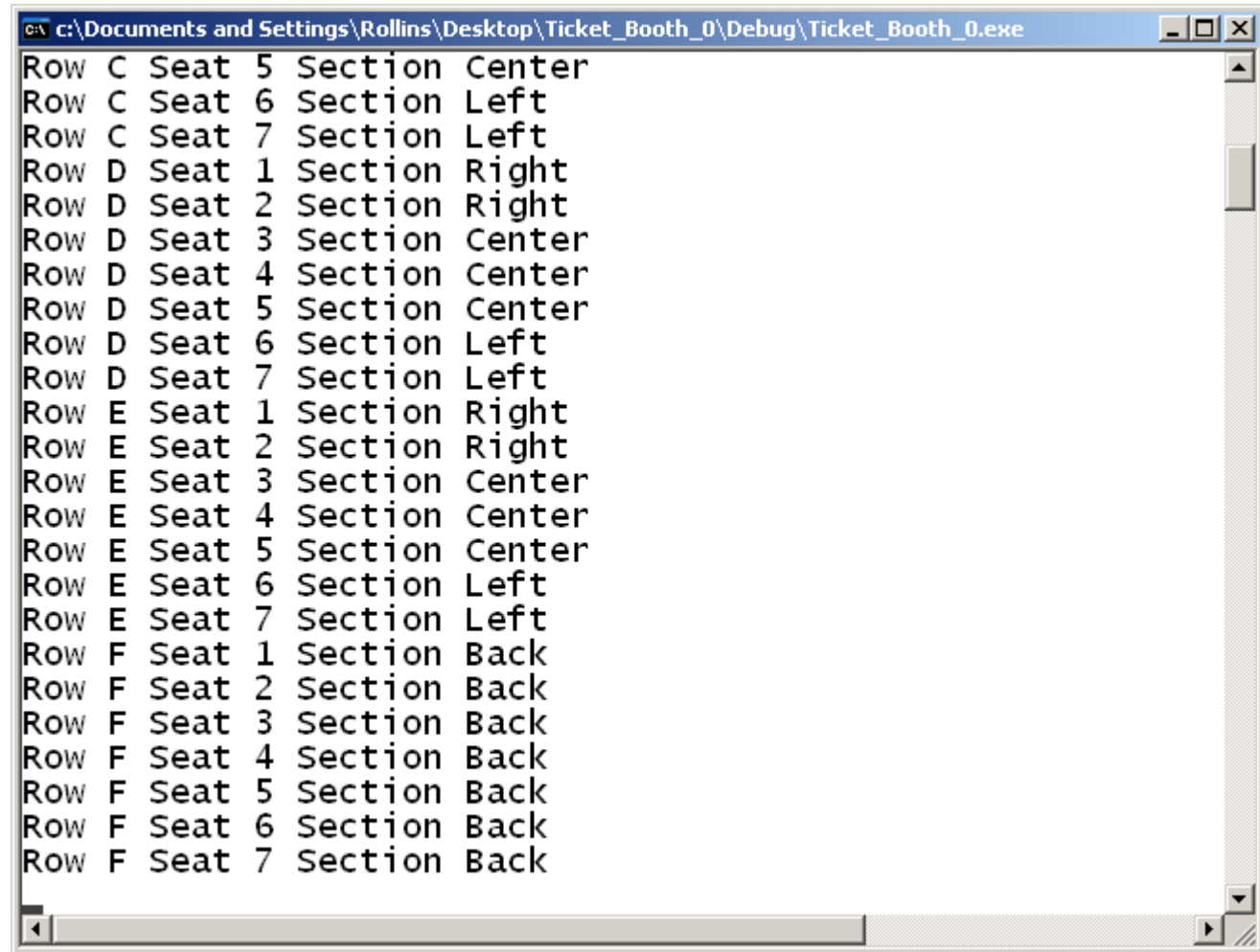


```
c:\Documents and Settings\Rollins\Desktop\Ticket_Booth_0\Debug\Ticket_Booth_0.exe
This is Ticket_Booth_0

The Little Theater
145 Main Street
Littleton, MA 1420
Row A Seat 1 Section Front
Row A Seat 2 Section Front
Row A Seat 3 Section Front
Row A Seat 4 Section Front
Row A Seat 5 Section Front
Row A Seat 6 Section Front
Row A Seat 7 Section Front
Row B Seat 1 Section Right
Row B Seat 2 Section Right
Row B Seat 3 Section Center
Row B Seat 4 Section Center
Row B Seat 5 Section Center
Row B Seat 6 Section Left
Row B Seat 7 Section Left
Row C Seat 1 Section Right
Row C Seat 2 Section Right
Row C Seat 3 Section Center
Row C Seat 4 Section Center
```

Output from Display
method of Venue object.

Expected Output (continued)



```
c:\Documents and Settings\Rollins\Desktop\Ticket_Booth_0\Debug\Ticket_Booth_0.exe
Row C Seat 5 Section Center
Row C Seat 6 Section Left
Row C Seat 7 Section Left
Row D Seat 1 Section Right
Row D Seat 2 Section Right
Row D Seat 3 Section Center
Row D Seat 4 Section Center
Row D Seat 5 Section Center
Row D Seat 6 Section Left
Row D Seat 7 Section Left
Row E Seat 1 Section Right
Row E Seat 2 Section Right
Row E Seat 3 Section Center
Row E Seat 4 Section Center
Row E Seat 5 Section Center
Row E Seat 6 Section Left
Row E Seat 7 Section Left
Row F Seat 1 Section Back
Row F Seat 2 Section Back
Row F Seat 3 Section Back
Row F Seat 4 Section Back
Row F Seat 5 Section Back
Row F Seat 6 Section Back
Row F Seat 7 Section Back
```



Ground Rules

This is a team project.

- Discuss the requirements.
- Divide up the work.
 - Report back and discuss your results.
- Record notes from your team meetings.
 - Distribute to all team members.
 - Submit in Canvas.



Ground Rules

- Do not share your work with other students outside your team.
 - Before or after submitting the project.
 - OK to *discuss* the project.
- Do not copy any other student's work.
 - Don't *look at* anyone else's program.
 - Don't let anyone look at your program.



Ground Rules

Except for code posted on the class web site

- Do not copy code from the Internet
 - or any other source.
- Write your own code.



Submission

- Assignment is due by 11:59 PM, Thursday, April 7.
- Deliverables:
 - Notes from team meetings.
 - Source code for the program.
 - Zipped project folder
- Put the zipped project folder and all other files into a folder and zip that folder for submission.
 - Submit a single .zip file.
- Use the Canvas Assignment to submit your work.
 - Only one submission per team.
 - The team leader should do the submission.
 - Identify the team and members in a Canvas comment.