

CIS8040 Spring 2010 Assignment #4

Due date: Feb 23, 2010

Instruction

This assignment is to help you practice conceptual modeling using ERD and Visio 2007.

1. Complete the exercise 5.63 on page 187 of the textbook. A copy of this exercise is included at the end of this document.
2. You should go through all steps; but only submit the final ERD model in Visio 2007 format.
3. Please use the Visio 2007 template provided to you on the course webpage.

Submission

Please submit the Visio 2007 file through myRobinson. Follow the file name format like this: assignment4-YourLastName.vsd (**please do not include space in file name**).

Appendix: Exercise 5.63 page 187 of the textbook

Figure 5-59 (on the next page) shows a listing of movie times at theaters in Seattle. Using the data in this figure as an example, do the following:

- A. Create a model to represent this report using the entities MOVIE, THEATER, and SHOW_TIME. Assume that theaters may show multiple movies. Although this report is for a particular day, your data model should allow for movie times on different days as well. Specify the identifier of the entities and their attributes. Name the relationships and the type and cardinality of all relationships. Explain which cardinalities you can logically deduce and which need to be checked out with users. Assume that distance is an attribute of THEATER.
- B. This report was prepared for a user who is located near downtown Seattle. Suppose that it is necessary to produce this same report for these theaters, but for a user located in a Seattle suburb such as Bellevue, Renton, Redmond, or Tacoma. In this case, distance cannot be an attribute of THEATER. Change your answer in A for this situation. Specify the entity identifiers and attributes. Name the relationships and identify the type and cardinality of all relationships.
- C. Suppose that you want to make this data model national. Change your answer to B so that it can be used for other metropolitan areas. Change your answer in A for this situation. Specify the entity identifiers and attributes. Name the relationships and identify the type and cardinality of all relationships.
- D. Modify your answer to C to include the leading cast members. Assume that the role of a cast member is not to be modeled. Specify the identifier of new entities and their attributes. Name the relationships and identify the type and cardinality of all relationships.
- E. Modify your answer to C to include the leading cast members. Assume that the role of a cast member is specified. Specify the identifier of new entities and their attributes. Name the relationships and identify the type and cardinality of all relationships.

Movie

Men in Black II

Even Tommy Lee Jones at his funniest can't save Will Smith or this goofy alien flick from sequel-itis.

Local Theaters and Showtimes

40 miles from the center of Seattle, WA [Change Area](#)

Tue, Jul 9 [Wed](#) [Thu](#) [Fri](#) [Sat](#)

Displaying 1 - 32 results, sorted by distance.

[AMC Pacific Place 11](#) (0.5 miles)

600 Pine St, Seattle (206) 652-2404

Showtimes: 11:00 am, 12:00 pm, 12:45 pm, 1:30 pm, 2:30 pm, 3:15 pm, 4:00 pm, 5:00 pm, 5:45 pm, 6:30 pm, 7:30 pm, 8:30 pm, 9:00 pm, 10:00 pm, 10:45 pm

[Neptune Theatre](#) (3.9 miles)

1303 NE 45th, Seattle (206) 633-5545

Showtimes: 11:20 am, 1:30 pm, 3:40 pm, 5:50 pm, 8:00 pm, 10:10 pm

[Regal Bellevue Galleria 11](#) (6.2 miles)

500 106th Ave NE, Bellevue (425) 451-7161

Showtimes: 11:00 am, 11:30 am, 1:00 pm, 1:30 pm, 3:00 pm, 3:30 pm, 5:05 pm, 5:35 pm, 7:10 pm, 7:40 pm, 9:20 pm, 9:50 pm

[LCE Oak Tree Cinema](#) (6.6 miles)

10006 Aurora Ave N., Seattle (206) 527-1748

Showtimes: 11:45 am, 2:15 pm, 4:45 pm, 7:15 pm, 9:45 pm

[LCE Factoria Cinemas 8](#) (7.8 miles)

3505 Factoria Blvd SE, Bellevue (425) 641-9206

Showtimes: 12:00 pm, 1:00 pm, 2:15 pm, 3:15 pm, 4:30 pm, 5:45 pm, 7:30 pm, 8:15 pm, 9:45 pm, 10:30 pm

[Kirkland Parkplace Cinema](#) (8 miles)

404 Parkplace Ctr, Kirkland (425) 827-9000

Showtimes: 12:15 pm, 2:30 pm, 4:45 pm, 7:20 pm, 9:35 pm

Figure 5-59 – Movie Time Listing