

In-Class Assessment 2 - OMST - WEIGHT 10 %

LINQ and LinqPad - **Read the entire instructions before beginning your work**

This is an **Open Book** assessment; you are allowed to reference your notes and other online resources.

⚠️ You are **not allowed** to seek the assistance of others or in any way collaborate with others in completing this assessment; doing so may subject you to academic discipline. ⚠️

Database

The physical database can be installed from either the **.bak** file or the **.bakpac** file included in the starter kit.

About OMST

Off Main-Street Theatre is a privately owned theatre located near Down-Town.

Requirements

In this assessment you are required to implement simple Linq queries for the supplied database. The ERD of the database is at the end of this document. Place each answer in a **separate** LinqPad Query.

The supplied images for each question indicate the needed data to be reported and what your results should look like in terms of structure; detailed values may vary.

- (Marks:3)** Show the number of tickets sold and total revenue for each ticket category. Show only the categories that have ticket sales.

IOrderedQueryable<> (4 items)		
cat	ticketsold	revenue
Child	5274	17088.5000
Teen	5664	48671.0000
Adult	11496	113251.0000
Senior	1388	7981.0000
	23822	186991.5000

- (Marks:4)** List all movies showing their title and release year. Show the start date and theatre location. Order the movies by title and the show locations by datetime.


IOrderedQueryable<> (12 items)						
title	year	locations				
Back to the Future	1995	<div>IEnumerable<> (50 items)</div> <table><tr><th>date</th><th>location</th></tr><tr><td>12/28/2017 11:10:00 AM</td><td>Dunbar Mall</td></tr></table>	date	location	12/28/2017 11:10:00 AM	Dunbar Mall
date	location					
12/28/2017 11:10:00 AM	Dunbar Mall					

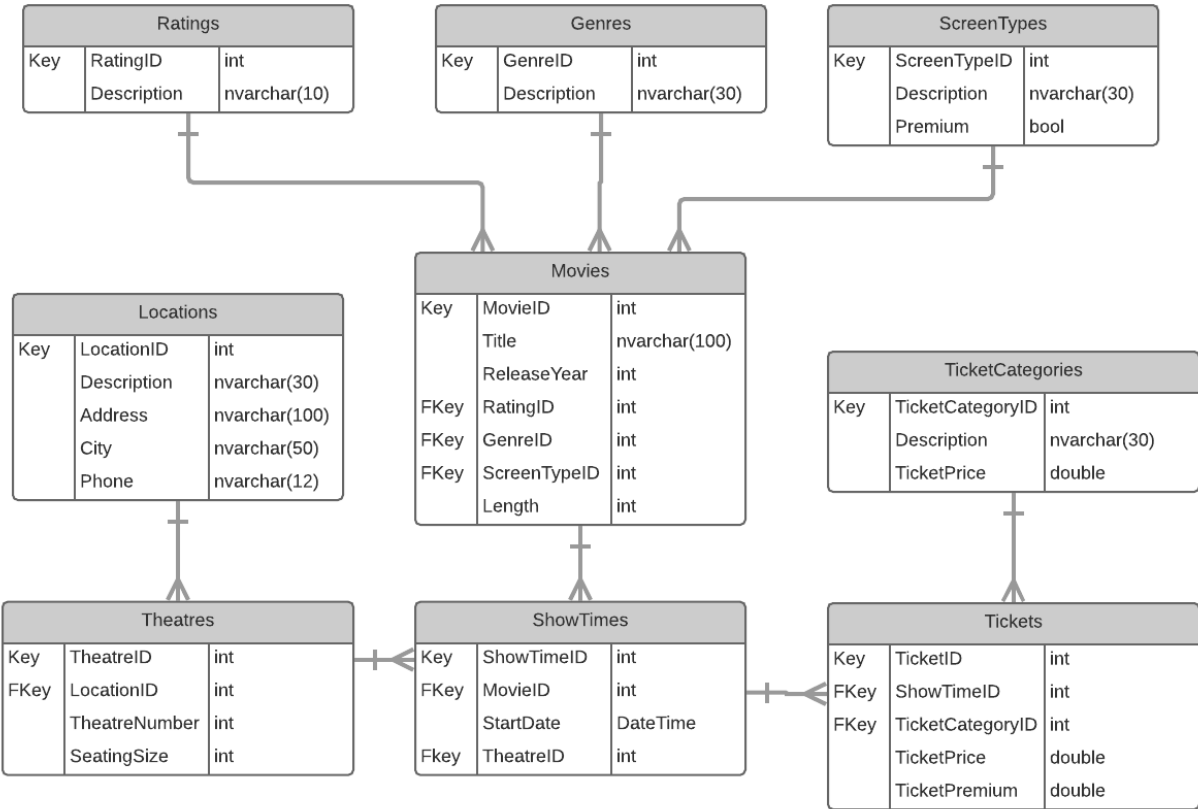
		<table><tr><td>12/28/2017 11:10:00 AM</td><td>Dunnen Mall</td></tr><tr><td>12/28/2017 11:10:00 AM</td><td>Northern Center</td></tr><tr><td>12/28/2017 1:30:00 PM</td><td>Dunnen Mall</td></tr><tr><td>12/28/2017 1:30:00 PM</td><td>Gateway Place</td></tr><tr><td>12/28/2017 1:30:00 PM</td><td>Northern Center</td></tr><tr><td>12/28/2017 2:00:00 PM</td><td>Dunnen Mall</td></tr><tr><td>12/28/2017 2:00:00 PM</td><td>Northern Center</td></tr><tr><td>12/28/2017 4:30:00 PM</td><td>Gateway Place</td></tr><tr><td>12/28/2017 7:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/29/2017 11:10:00 AM</td><td>Dunnen Mall</td></tr><tr><td>12/29/2017 11:10:00 AM</td><td>Gateway Place</td></tr><tr><td>12/29/2017 11:10:00 AM</td><td>Northern Center</td></tr><tr><td>12/29/2017 1:30:00 PM</td><td>Gateway Place</td></tr></table>	12/28/2017 11:10:00 AM	Dunnen Mall	12/28/2017 11:10:00 AM	Northern Center	12/28/2017 1:30:00 PM	Dunnen Mall	12/28/2017 1:30:00 PM	Gateway Place	12/28/2017 1:30:00 PM	Northern Center	12/28/2017 2:00:00 PM	Dunnen Mall	12/28/2017 2:00:00 PM	Northern Center	12/28/2017 4:30:00 PM	Gateway Place	12/28/2017 7:00:00 PM	Gateway Place	12/29/2017 11:10:00 AM	Dunnen Mall	12/29/2017 11:10:00 AM	Gateway Place	12/29/2017 11:10:00 AM	Northern Center	12/29/2017 1:30:00 PM	Gateway Place
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Blade Runner	1982	<table><tr><th colspan="2">IEnumerable<> (10 items)</th></tr><tr><th>date</th><th>location</th></tr><tr><td>12/28/2017 4:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/28/2017 7:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/29/2017 4:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/29/2017 7:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/30/2017 4:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/30/2017 7:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/31/2017 4:00:00 PM</td><td>Gateway Place</td></tr><tr><td>12/31/2017 7:00:00 PM</td><td>Gateway Place</td></tr><tr><td>1/1/2018 4:00:00 PM</td><td>Gateway Place</td></tr><tr><td>1/1/2018 7:00:00 PM</td><td>Gateway Place</td></tr></table>	IEnumerable<> (10 items)		date	location	12/28/2017 4:00:00 PM	Gateway Place	12/28/2017 7:00:00 PM	Gateway Place	12/29/2017 4:00:00 PM	Gateway Place	12/29/2017 7:00:00 PM	Gateway Place	12/30/2017 4:00:00 PM	Gateway Place	12/30/2017 7:00:00 PM	Gateway Place	12/31/2017 4:00:00 PM	Gateway Place	12/31/2017 7:00:00 PM	Gateway Place	1/1/2018 4:00:00 PM	Gateway Place	1/1/2018 7:00:00 PM	Gateway Place		
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Blazing Saddles	1974	<table><tr><th colspan="2">IEnumerable<> (30 items)</th></tr><tr><th>date</th><th>location</th></tr><tr><td>12/28/2017 11:10:00 AM</td><td>Gateway Place</td></tr><tr><td>12/28/2017 1:30:00 PM</td><td>Gateway Place</td></tr></table>	IEnumerable<> (30 items)		date	location	12/28/2017 11:10:00 AM	Gateway Place	12/28/2017 1:30:00 PM	Gateway Place																		
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3. **(Marks:4)** Create a list showing movies by Genre description. For each genre show the movie title, rating, required screen type and if it is a premium ticket movie. Order the movies by title.

▲ IOrderedQueryable<> (5 items) ▶				
title	gmovies			
Comedy	▲ IEnumerable<> (2 items) ▶			
	title	rating	screen	premium
	Blazing Saddles	14+	Normal	No
	WALL-E	14+	Normal	No
Adventure	▲ IEnumerable<> (4 items) ▶			
	title	rating	screen	premium
	Back to the Future	PG	Normal	No
	Independence Day	14+	3D	Yes
	Jaws 3D	G	3D	Yes
	The Princess Bride	G	Normal	No
Animation	▲ IEnumerable<> (3 items) ▶			
	title	rating	screen	premium
	Finding Nemo	G	Normal	No
	Ratatouille	G	Normal	No
Romantic	▲ IEnumerable<> (1 item) ▶			
	title	rating	screen	premium
	It's a Wonderful Life	G	Normal	No
Action	▲ IEnumerable<> (2 items) ▶			
	title	rating	screen	premium
	Blade Runner	18+	Ultra	Yes
	Star Wars 3D	14+	3D	Yes

4. **(Marks:4)** Create a list showing the daily revenues for each movie on a particular date by location; filter on Year, Month and Day portions of the DateTime field. Group report by location, then by movie. Use the date of Dec 31, 2017 for testing.

^ IOredQueryable<> (23 items) ▶		
location	movie	revenue 
Dunnen Mall	Back to the Future	1176.0000
Dunnen Mall	Blazing Saddles	1001.7500
Dunnen Mall	Finding Nemo	2582.5000
Dunnen Mall	Independence Day	2276.0000
Dunnen Mall	Jaws 3D	3010.7500
Dunnen Mall	Ratatouille	1685.2500
Dunnen Mall	Up	572.0000
Dunnen Mall	WALL-E	1202.2500
Gateway Place	Back to the Future	4130.0000
Gateway Place	Blade Runner	1836.5000
Gateway Place	Blazing Saddles	1176.2500
Gateway Place	Independence Day	2274.0000
Gateway Place	Jaws 3D	1699.2500
Gateway Place	Star Wars 3D	2066.0000
Gateway Place	The Princess Bride	1837.5000
Northern Center	Back to the Future	2283.0000
Northern Center	Blazing Saddles	1286.5000
Northern Center	Finding Nemo	2040.7500
Northern Center	Independence Day	2386.0000
Northern Center	Jaws 3D	3524.7500
Northern Center	Ratatouille	1718.7500
Northern Center	Up	494.0000
Northern Center	WALL-E	728.2500
		42988.0000



OMST
ERD

All fields are required