

## Assignment #4 – WestCon Cable Company

A new cable company has cropped up on the west coast. They plan to provide different channel packages to its customers and each package will consist of different combinations of the available 800 different channels. Different channel packages might include some of the same channels.

For example, the “Movie Package” will include the premium movie channels, the “Sports Package” that will include the sports channels or the “Action Package” that will include some of movie channels and sports channels that are more “adrenalin-pumping”.

Each customer can subscribe to one or more of the different packages depending on their likes and dislikes, but they must have at least the “Basic” cable package.

Along with the channel packages of their choice, customers will also be able to watch Pay-Per-View events on demand. Each event will be available on a single Pay-Per-View channel at a given date/time and each channel will show different events as they happen. Customers will pay for the event after it is shown, and the cable box will enable and disable the channel automatically for the customer.

As WestCon’s newest employee, you will design and implement a database to manage all this information. The design will include the following elements:

- An Entity-Relationship Diagram of the design
  - Use Visual Paradigm and target MariaDB
  - Include all entities, keys, relationships and data types.
- A complete SQL script to implement the database
  - Include all SQL queries required to create the database and tables.
  - Include all SQL queries required to add the foreign key constraints **after** the tables have been completed.
- An SQL script that will perform the following actions
  - Add three customers: John Buck, Jane Doe and Jack Sprat
  - Add three channels: ABC (100), Spike (106) and TSN (110)
  - Add three cable packages: Basic, Action and Sports
  - Add channel 100 to the Basic package, 106 to the Action package and 110 to the Sports package
  - Add the Basic package to all the customers’ subscriptions
  - Add the Action package to Jane Doe’s subscription
  - Add one pay-per-view event (The Prize Fight) to be scheduled on TSN for Oct. 31<sup>st</sup>, 2018 at 8:00PM
  - Add John Buck to the list of people who want to watch the big fight
  - Update John Buck’s big fight record to complete his payment of \$9.95
  - Delete Jane Doe’s subscription to the Action package
  - Display a list of all customer information alphabetically by last name
  - Display all information for the Spike channel
  - Display the title and date of all future Pay-Per-View events

## Marking Rubric

	Criteria	Unsatisfactory	Acceptable	Good	Exceptional	Marks
		0	1	2	3	
DESIGN	<b>Entities, Relationships and Keys</b>	<ul style="list-style-type: none"> <li>- no valid entities were shown</li> <li>- crow's foot relationships do not exist</li> <li>- no keys exist</li> </ul>	<ul style="list-style-type: none"> <li>- some of the entities were valid</li> <li>- some of the crow's foot relationships are valid</li> <li>- some keys are defined correctly</li> </ul>	<ul style="list-style-type: none"> <li>- most of the entities were valid</li> <li>- most of the relationships and keys are correct</li> <li>- only a few mistakes exist</li> </ul>	<ul style="list-style-type: none"> <li>- all the entities were chosen well and given appropriate names</li> <li>- all relationships are correct and in crow's foot notation</li> <li>- all keys are correct</li> </ul>	_____
	<b>Fields and Data Types</b>	<ul style="list-style-type: none"> <li>- no fields exist in the entities</li> <li>- no data types are defined</li> <li>- the same data type was used for all fields</li> </ul>	<ul style="list-style-type: none"> <li>- some fields exist, but many are missing, misnamed or incorrect for the entity</li> <li>- some data types are correct for the fields, but many are incorrectly sized or using the wrong type</li> </ul>	<ul style="list-style-type: none"> <li>- only a few fields are missing, misnamed or are incorrect for the entity</li> <li>- most fields are using the correct types and sized appropriately</li> <li>- some required fields are mistakenly nullable</li> </ul>	<ul style="list-style-type: none"> <li>- all fields are present and are correctly placed in their corresponding entity</li> <li>- all fields have well chosen data types and are correctly sized</li> <li>- all required fields are set to not null</li> </ul>	_____
IMPLEMENTATION	<b>Table Creation Queries</b>	<ul style="list-style-type: none"> <li>- do not exist</li> <li>- contains too many errors</li> </ul>	<ul style="list-style-type: none"> <li>- most tables depicted in ERD can be created</li> <li>- most of the queries match ERD</li> <li>- some errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all tables depicted in ERD can be created</li> <li>- most of the queries match ERD</li> <li>- a few errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all tables depicted in ERD can be created</li> <li>- query matches ERD exactly</li> <li>- no errors exist</li> </ul>	_____
	<b>Constraint Creation Queries</b>	<ul style="list-style-type: none"> <li>- do not exist</li> <li>- contains too many errors</li> </ul>	<ul style="list-style-type: none"> <li>- some constraints depicted in ERD can be created</li> <li>- some errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- most constraints depicted in ERD can be created</li> <li>- a few errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all foreign key constraints depicted in ERD can be easily added to existing tables</li> <li>- no errors exist</li> </ul>	_____
	<b>Insert Queries</b>	<ul style="list-style-type: none"> <li>- do not exist</li> <li>- contains too many errors</li> </ul>	<ul style="list-style-type: none"> <li>- some data is inserted correctly</li> <li>- some fields of data are missing</li> <li>- a few records are missing</li> <li>- a few errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- most data is inserted correctly</li> <li>- a few fields of data are missing</li> <li>- a couple of errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all data is inserted as specified and correctly</li> <li>- no data is missing</li> </ul>	_____
	<b>Update and Delete Queries</b>	<ul style="list-style-type: none"> <li>- do not exist</li> <li>- contains too many errors</li> </ul>	<ul style="list-style-type: none"> <li>- some data is modified correctly</li> <li>- a few errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- most data is modified correctly</li> <li>- a couple of errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all data is updated or deleted as specified and correctly</li> <li>- no errors exist</li> </ul>	_____
	<b>Select Queries</b>	<ul style="list-style-type: none"> <li>- do not exist</li> <li>- contains too many errors</li> </ul>	<ul style="list-style-type: none"> <li>- some data is displayed correctly</li> <li>- some fields of data are missing</li> <li>- a few records are missing</li> <li>- a few errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- most data is displayed correctly</li> <li>- a few fields of data are missing</li> <li>- a couple of errors exist</li> </ul>	<ul style="list-style-type: none"> <li>- all data is displayed as specified and correctly</li> <li>- no data is missing</li> </ul>	_____
	<b>Query Formatting</b>	<ul style="list-style-type: none"> <li>- SQL script is very poorly formatted and commented</li> <li>- most SQL keywords are not capitalized</li> </ul>	<ul style="list-style-type: none"> <li>- some of the script is well formatted and commented</li> <li>- some SQL keywords are capitalized</li> </ul>	<ul style="list-style-type: none"> <li>- most of the script is well formatted and commented</li> <li>- most SQL keywords are capitalized</li> </ul>	<ul style="list-style-type: none"> <li>- all SQL keywords are capitalized</li> <li>- all SQL is appropriately indented and formatted</li> <li>- all SQL is appropriately commented</li> </ul>	_____
Total						<div>_____</div> <div>24</div>