



# CONESTOGA

Connect Life and Learning



<b>Student Name:</b>	
<b>Assignment:</b>	Exercise 5
<b>Course Name:</b>	Business Data Analysis

<b>Date Assigned:</b>	Class 14 (05-Oct-2017)
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<b>Date Due:</b>	Class 16 (11-Oct-2017)
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<b>Rules:</b>	<ol style="list-style-type: none"><li>1) This is both a group and a class participation exercise.<ol style="list-style-type: none"><li>a. You will first work as a group for developing your solution.</li><li>b. We will discuss the answer as a class after submission.</li></ol></li><li>2) Each group should design 1 revised database schema in VISIO, you will need to export this as a PDF file.</li><li>3) The original VISIO document is not provided.</li><li>4) Do not copy or replicate the work of another group. Doing so will result in a grade of 0 for both groups.</li><li>5) Modify the ERD as little as possible.</li><li>6) You may need to conduct research to figure out workarounds!</li></ol> <p>MWAAHAHAHAHAHAHAHAH</p>
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# Objective – Database Schema Redesign

As a member of a small team you are to discuss the below scenario and database schema identifying issues and inefficiencies with the existing design. After each group's submission has been made the class will discuss recommendations and possible changes as a class based on each group's findings.

A common responsibility for ITBAs will be to verify the functionality of a database schema and validate relationships. As you progress through this exercise you may come into specific issues requiring you to make assumptions or step outside of the requested materials. Plan carefully, document any change or alteration you make that was not an element of the requirements.

## Scenario – CDL Shipping

Your manager has approached you requesting that you review a proposed database schema that has originated from one of CDL's subsidiary businesses, Conestoga Design Shipping. Along with this database schema you have been provided the following written record of requirements which were originally gathered verbally and later written down by CDL employee Billy Bob.

Utilize Billy Bob's requirements and the attached schema you must ensure that Billy Bob's design appropriately meets requirements and would be functional. If Billy Bob's design has any issues or missteps you are to design a corrected database schema and record, briefly, the reasoning behind your changes.

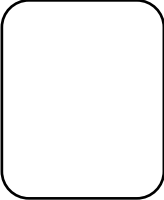


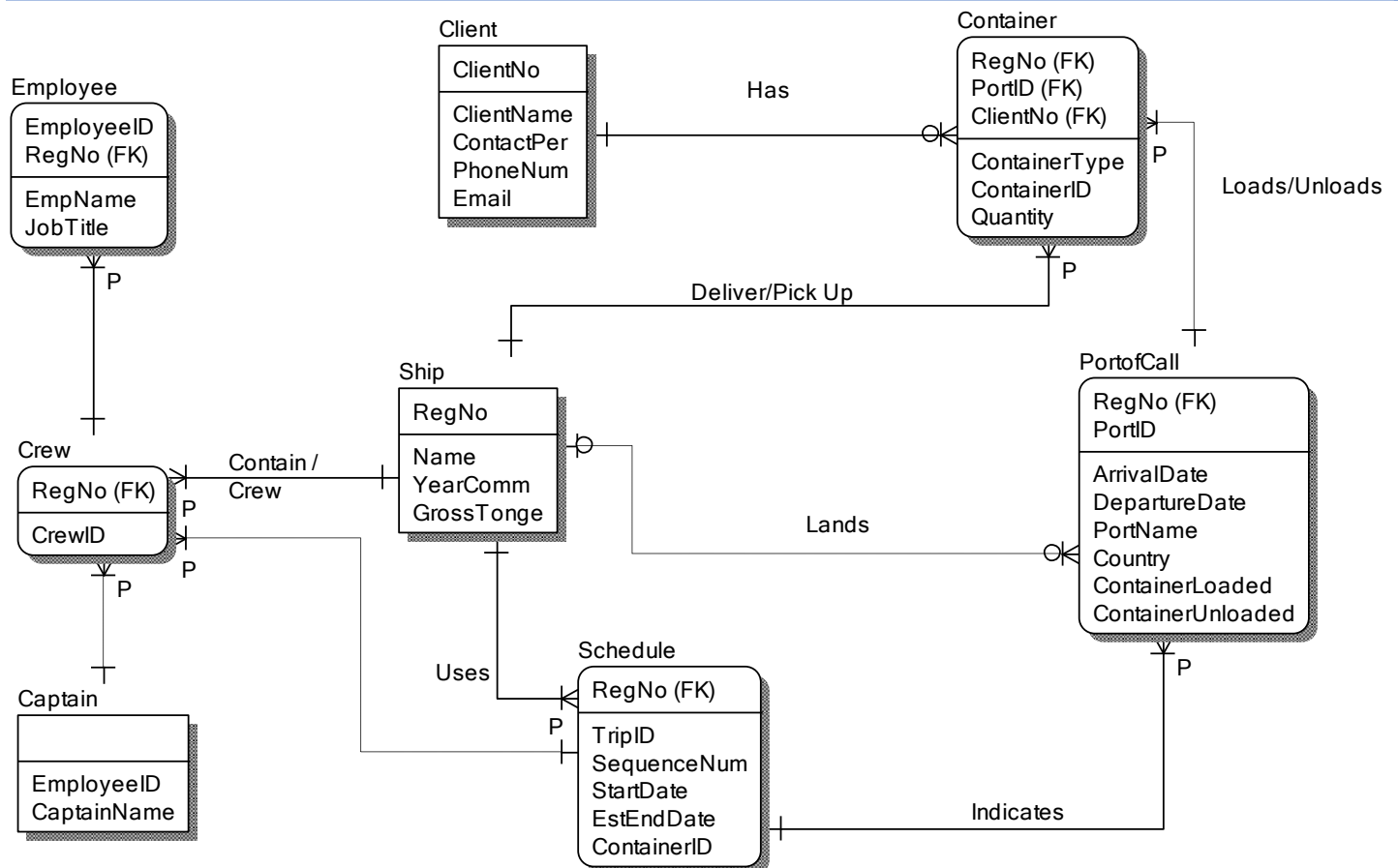
## Requirements – Verbally Recorded Requirements

Conestoga Design Shipping owns a fleet of container ships. Each container ship has several pieces of information that need to be recorded into CDL's new database; a unique registration number, the ship's name, the year of commission and gross tonnage that the ship can haul per trip. These ships are used to deliver and pick up containers for clients around the world. For each registered client we will need to create a client number associated to a client (or company) name as well as recording a contact person with a phone number within the client organization. Periodically a sailing schedule is created for each ship showing the start date and estimated end date. Each ship may have several schedules each year, and according to international law all future and past schedules must be maintained within our data. The schedule will indicate the ports of call in sequence starting with the first port and ending with the last. There will ordinarily be multiple ports of call on each schedule and it is very important that the precise sequence is readily available from the database. Once a port of call has been reached the arrival date and departure dates are recorded. At each port containers may be loaded and unloaded and it is important therefore for that information to have been entered into the database and accurately maintained. Each loaded container will have the type and quantity of its contents also recorded. There is an international standard list of cargo type codes and it is very important that the entries in the database for a container's cargo type are as accurate as possible. Each port that a Conestoga Design ship may visit has a port id. In addition the name of the port and the country are kept. Conestoga Design has many employees some of whom crew the ships. Crews are not fixed and may change with every sailing schedule. For each employee Conestoga Design has assigned a unique employee number and also retains name and address as well as job title. One of the crew members is the captain of the ship and again it is very important that this is accurately recorded.

# Important Notes

- 1) Billy Bob needs to learn how to format requirements and use 'bullets' or point-form to clearly organize his thoughts.
- 2) Billy Bob has used a non-UML standard notation system and CDL has requested that you continue to utilize the format that is presented in Billy Bob's diagram. The two nonstandard items are the dotted line, or 'non-identifying relationship' and the 'aggregate (or view) table'

Object	Name	Purpose
---	Non-Identifying Relationship	Shows relationships that are conditional and not guaranteed.  Identifying relationship: Each container must be owned by a client, each client has 0, 1 or many containers. This relationship will never change, the container can ONLY EXIST if the client exists.  Non-Identifying relationships: Ship and PortofCall for example are not dependent on each other. If the ship did not exist the PortofCall would still exist. If the PortofCall did not exist the ship would still exist. They have no guaranteed relationship.
	Aggregate table (View table)	This is a table combining values from other tables for the purpose of running queries. A table classified as an 'aggregate' table will oft contain unique values that must be recorded for the database, but will not have any connecting keys with other tables and will need to borrow keys from other locations to validate/connect to necessary tables.



# Evaluation

Your evaluation will be held to the following rules and constraints. These rules are firm and are irrefutable.

- Failure to submit this completed deliverable will result in a grade of zero (0) on this deliverable.
  - There will be no opportunity provided to make up for this missed deliverable or raise your grade.
  - In the instance that the failure to submit this work results in a grade of zero (0) that ultimately causes an overall course grade below fifty-five (55) then there will be no opportunity to perform any work, tests, activities or tasks to raise your grade above the failing mark.
- It is the student's responsibility to ensure that their work has been submitted through eConestoga, on-time, to the correct course and in the correct folder.
  - If you submit your work to the incorrect folder then you may not receive any grade for your work. This will be completely up to the discretion of your Instructor.
  - If you, the student, submit your file to the wrong folder or course on eConestoga then you must simply resubmit to the correct folder.
- To pass this course you are required to submit every single deliverable.
  - If you have failed to submit any work by the end of the course your Instructor reserves the right to assign a final course grade of incomplete (I) for your performance in the entire course.
  - The grade of incomplete (I) will remain in place until the missing item has been submitted.
    - Your submission must be completed to a professional level with full consideration of the materials that have been covered throughout your course, course materials and readings.
    - Your submission will be completed for no marks.
    - It is the responsibility of the student to contact their instructor through Conestoga Mail within five (5) business days of receiving their grade if the grade posted is an (I) for incomplete.

Your work, once submitted through eConestoga, will be evaluated based on the following criteria.

- 10 points for correctly identifying and repairing issues with the Database Schema.
- 5 points for proper professional formatting, presentation and clarity of VISIO diagram.
- 5 points for the use of assumptions when and where needed. Your assumptions will be scrutinized on both the strength of your logical argument and for the professionalism of presentation as indicated in the section below.

Please note that professionalism of presentation, while not a specific evaluation criterion, may influence your overall grade for this deliverable if the work produced is significantly lower, or higher, than what would be expected from a professional submission. Items that will be taken into consideration as part of professionalism would include:

- Sentence structure and grammar
- Spelling
- Clear formatting
- Choice of language and terminology
- Clarity of structure (readability)

# Submission Details

SUBMISSION LOCATION	SUBMISSION SPECIFICS
Course: <b>Business Data Analysis</b>	One student from each group must submit their teams work to the Exercise #6 dropbox. Ensure that all team member names are indicated within the comments section of the dropbox submission.
Submission: <b>Dropbox</b>	
Folder: <b>Exercise #5</b>	
Work Type: <b>Group</b>	
File Type(s): <b>PDF (of a VISIO file)</b>	
# of Files: <b>1</b>	

## FILE NAMES

All submissions must adhere to the programs naming convention. For details regarding this naming convention documentation can be retrieved from the *How-To* module, within the *Support* module for your course on eConestoga, file name "O3 - Student Submissions Naming Convention - ver1.0.PDF." If this is group work you must include your group members names within your work and within the NOTES section of your dropbox submission. Submitting your work with an improper file type may result in a grade of zero (0) being assigned.

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## ACADEMIC HONESTY

- By submitting your work through Conestoga College's eConestoga dropbox you hereby affirm that;
  - You are in complete understanding of, and accept in full, the *Academic Integrity Policy* and *Violation of Academic Integrity Policy* of Conestoga College. If you are not familiar with these policies it is your responsibility to familiarize yourself with them, in full, before submitting any work through eConestoga.
  - The work that you have submitted is your own work and has not been: taken, replicated, duplicated or copied in any way from any source inside or outside of the classroom.
  - Your work will be retained and indexed by Turnitin.com for academic honesty and comparison purposes.
- If you share your work with, or use the work of, others then your grade (along with the grade of any other participating<sup>1</sup> student) will be adjusted to reflect this infraction and you will face academic penalties<sup>2</sup> including, but not limited to;
  - Discontinuance for Conestoga for a minimum of 12 months and a failing grade for all current courses.
  - A failed grade for the course and suspension from Conestoga College for an indeterminate length of time.
  - A failed grade for the course, which may result in your inability to continue in your Program.
  - A failed grade for the deliverable on which the *Academic Integrity Policy* was violated.
- Turnitin.com will compare the values and data of each student submission against submissions from;
  - Your current classmates, including all submissions they have made in the past or present.
  - Former students of your program as well as students from other intakes for your program.
  - Students enrolled in any course or program at Conestoga College, past or present.
  - A perpetually growing database of work from 26 million students from Colleges and Universities worldwide.
  - More than 12 billion webpages including all mainstream data sites, repositories and wikis.
  - Direct quotations taken from any source will be identified by Turnitin.com and will require Instructor review, it is, therefore, imperative that you cite any work(s) taken from other sources following proper APA form

<sup>1</sup> Participation includes both unknowing participation as well as willful participation in any activity that results in academic misconduct.

<sup>2</sup> No refunds will be made available to any student who has been discontinued from their program due to violations of academic policy.