
Contact Information

Instructor: [REDACTED]

Email: [REDACTED]

Phone: [REDACTED]

[REDACTED]

[REDACTED]

Instructor Bio

[REDACTED]

[REDACTED]

Instructor Expectations

[REDACTED]

[REDACTED]

UCLA Extension Public Contact: [REDACTED]

Email: [REDACTED]

Phone: [REDACTED]

Description

Understanding client-relational database design is vital to system design and implementation. Learn relational database technology, data modeling, SQL, data normalization, and the translation of logical designs to physical storage structures. Additional topics include indexes; storage management; transactions; database integrity; concurrency control; recovery; client/server relational database management; and introduction to query optimization.

Objectives

Outcomes

By the end of this course, a successful learner should be able to:

1. Explain what makes a good data model
2. Create entity-relationship diagrams from raw data elements
3. Normalize entities to 1st, 2nd, and 3rd normal forms
4. Create database tables
5. Understand the three aspects of ANSI-Standard SQL (DML, DDL, and DCL)
6. Code basic SQL queries in a relational database management system (SQL Server)

Materials

Data Modeling Essentials

Author: Graeme C. Simsion, Graham C. Witt

Publisher: Morgan Kaufmann

Edition: Third Edition

ISBN: 0-12-644551-6

This book is available in both new as well as used versions on Amazon, Barnes & Noble, etc. and other sites.

Required Software

There are two products that will enable us to put into practice what we have learned. These two products are Microsoft Visio Professional 2016 for building our entity-relationship data models, and Microsoft SQL Server 2016 for creating our physical databases and working with relational data via the SQL language.

As part of the enrollment for this course UCLA Extension will be providing access to the **Apporto** hosted environment. This online environment will allow you to use Visio 2016 and SQL Server 2016 online without the need to download and install any software on your local machine.

Because you will have access to the needed software via the Apporto hosted environment all that is required to run the software is a web browser (Chrome) on your local machine.

If you have access to Visio or SQL Server outside of the Apporto hosted environment you may use your own version of the required software.

More details to follow in the coming weeks.

✓ Evaluation

Criteria

Grades are assigned based on points. All work will be graded within seven days of the due date. Explanations about discussion questions, assignments, and other course components appear in the appropriate weekly pages.

Type	Weight	Topic	Notes
Participate in weekly discussions	20 points		2 point per week = total 20 points NOTE: Points for participation in the weekly discussions are given to students that contribute something of a substantial nature. I monitor all discussion threads. Replying to a post with “very interesting” or a like comment do not qualify and are not considered “substantial.” If you want your weekly points then you need to contribute something of substance others can find of value.
Quizzes (6 total)	30 point		5 points each = total 30 point

Type	Weight	Topic	Notes
Lab assignments (4)	50 points		3 for 10 points, 1 for 20 points = total 50 points

Breakdown

Grading Scale

A	100%	to 90%
B	< 90%	to 80%
C	< 80%	to 70%
F	< 70%	to 0%

*PLEASE BE AWARE THAT SOME CERTIFICATES REQUIRE A FINAL CUMULATIVE GRADE OF B- IN ORDER TO RECEIVE THE CERTIFICATE.

⚙ Course Policies

Instructor Expectations

My expectations for the course are very similar to the bullet items listed above. I expect each of you will be able to understand and describe what makes up a good relational data model. Each of you should have the basic skills to create entity-relationship diagrams from a set of basic data elements. This includes following the normalization process and rules to 3rd normal form (3NF).

For the physical implementation side of the course you will be able to create a basic database along with a set of related tables and code basic SQL queries to perform data manipulation, data definition, and data control (DML, DDL, DCL). This will be done using Microsoft SQL Server a database software platform.

🎓 Institutional Policies

Student Conduct

Students are subject to disciplinary action for several types of misconduct or attempted misconduct, including but not limited to dishonesty, such as cheating, multiple submission, plagiarism, or knowingly furnishing false information to the University; or theft or misuse of the intellectual property of others or violation of others' copyrights. Students are encouraged to familiarize themselves with policy provisions which proscribe these and other forms of misconduct at:

<https://www.uclaextension.edu/pages/str/studentConduct.jsp>

(<https://www.uclaextension.edu/pages/str/studentConduct.jsp>)

Services for Students with Disabilities

In accordance with the Americans with Disabilities Act of 1990, UCLA Extension provides appropriate accommodations and support services to qualified applicants and students with disabilities. These include, but are not limited to, auxiliary aids/services such as sign language interpreters, assistive listening devices for hearing-impaired individuals, extended time for and proctoring of exams, and registration assistance. Accommodations and types of support services vary and are specifically designed to meet the disability-related needs of each student based on current, verifiable medical documentation. Arrangements for auxiliary aids/services are available only through UCLA Extension's Service for Students with Disabilities Office at (310) 825-7851 or by email at access@uclaextension.edu (<mailto:access@uclaextension.edu>). For complete information see: <https://www.uclaextension.edu/pages/str/studentswithDisabilities.jsp> (<https://www.uclaextension.edu/pages/str/studentswithDisabilities.jsp>)

Incompletes

Your instructor may post the interim grade *Incomplete/I* if at the end of the class your overall work is of passing quality but a portion could not be submitted for understandable reasons (e.g. illness). It is your responsibility to petition your instructor for permission to submit work late and to provide an explanation, and it is his or her sole decision whether to accept the explanation. If permitted, the *Incomplete/I* grade will be posted and a time frame defined for you to submit the missing work, ranging from one to twelve weeks. *Incomplete/I* grades that remain unchanged after twelve weeks will lapse to *F*, *NP* or *U*. Receiving an *I* grade entitles you to submit only the missing work your instructor has agreed to accept late, and does not allow other work to be retaken or oblige UCLA Extension to provide continuing access to course materials via Canvas. The *Incomplete/I* grade is not an option for courses that do not bear credit, such as 700, 800, or 900-level courses. For complete information, see: <https://www.uclaextension.edu/pages/str/grading.jsp> (<https://www.uclaextension.edu/pages/str/grading.jsp>)

All Grades are Final

No change of grade may be made by anyone other than the instructor, and then, only to correct clerical errors. No term grade except *Incomplete* may be revised by re-examination. The correction of a clerical error may be authorized only by the instructor of record communicating directly with personnel of Student and Alumni Services.

Sexual Harassment

The University of California is committed to creating and maintaining a community where all individuals who participate in University programs and activities can work and learn together in an atmosphere free of harassment, exploitation, or intimidation. Every member of the community should be aware that the University prohibits sexual harassment and sexual violence, and that such behavior violates both law and University policy. The University will respond promptly and effectively to reports of sexual harassment and sexual violence, and will take appropriate action to prevent, to correct, and when necessary, to discipline behavior that violates our policy.

All Extension students and instructors who believe they have been sexually harassed are encouraged to contact the Department of Student and Alumni Services for complaint resolution: UCLA Extension, Suite 113, 10995 Le Conte Ave., Westwood; Voice/TTY: (310) 825-7031. View the University's full Policy on Sexual Harassment and Sexual Violence at <http://policy.ucop.edu/doc/4000385/SHSV> (<http://policy.ucop.edu/doc/4000385/SHSV>).

☰ Additional Items

About Your Online Course Materials

Please note the following about online course components at UCLA Extension:

- Students must have basic computer skills, including the use of word processing software, email, and the ability to use internet browsers, such as Safari, Firefox, or Chrome.
- Students are responsible for meeting the technical requirements of Canvas and familiarizing themselves with the Canvas Learning Management System.
 - What are the basic computer specifications for Canvas? <https://guides.instructure.com/m/4214/l/82542-what-are-the-basic-computer-specifications-for-canvas> (<https://guides.instructure.com/m/4214/l/82542-what-are-the-basic-computer-specifications-for-canvas>)
 - Which browsers does Canvas support? <https://guides.instructure.com/m/67952/l/720329-which-browsers-does-canvas-support> (<https://guides.instructure.com/m/67952/l/720329-which-browsers-does-canvas-support>)
- Students are responsible for keeping a copy of all assignments and work submitted, and to be aware of all assignments, due dates, and course guidelines.
- Students are encouraged to keep and/or download a local copy of their assignment files, as **access to the online environment of a specific course is limited to 30 days after the final course date**, as listed in the course catalog.

If you need assistance downloading student materials from your course, please contact Canvas Support or the UCLA Extension Learning Support Team.

UCLA Extension Learning Support

Email: support@unexonline.zendesk.com (<mailto:support@unexonline.zendesk.com>)

Phone: Toll-free at (866) 269-7289 (US only) or (310) 206-4563.

Monday - Friday, 7am to 6pm (Pacific Time).

Website: <http://support.uclaextension.edu> (<http://support.uclaextension.edu/>)

The UCLA Extension learning support team assists both students and instructors with Canvas-related technical support, as well as general administrative questions.

For additional support on using Canvas or addressing a technical issue:

Click on the "Help" button on the lower left corner of the screen from within the Canvas system, where you can chat live with a technical support agent or submit a ticket for assistance.

Schedule

The course schedule is outlined below by week. Each week corresponds to a module in Canvas. The weekly outline can also be found in the syllabus document which can be viewed or downloaded in the General Module section of Canvas.

When	Topic	Notes
Week #1	What Is Data Modeling?	Read chapter 1. Quiz 1.
Week #2	Basics Of Sound Structure - Part 1	Read Chapter 2 pages 33 - 53. Quiz 2.
Week #3	Basics Of Sound Structure - Part 2	Read Chapter 2 pages 53 - 63. Quiz 3.
Week #4	The Entity-Relationship Approach - Part 1	Read Chapter 3 pages 65 - 93. Quiz 4.
Week #5	The Entity-Relationship Approach - Part 2	Read Chapter 3 pages 93 - 109. Quiz 5.
Week #6	Subtypes And Supertypes	Read Chapter 4. Quiz 6.
Week #7	Week 7 Hands-On Lab Assignment	Week 7 Data Normalization Exercise (Part 1) Week 7 Visio 2013 ERD Assignment (Part 2)
Week #8	Week 8 Hands-On Lab Assignemnt	Week 8 Data Normalization Exercise (Part 1) Week 8 Visio 2013 ERD Assignment (Part 2)
Week #9	Week 9 Hands-On Lab Assignment	Week 9 Data Normalization Exercise (Part 1) Week 9 Visio 2013 ERD Assignment (Part 2) Week 9 SQL Server Implementation Exercise (Part 3)
Week #10	Week 10 Hands-On Lab Assgnment (Final)	Week 10 Final SQL Server Assignment