Database Design -
Course Outline

Oracle Academy
Database Design - Section 1
Lesson 1 - Introduction to the Oracle Academy
Lesson 2 - History of Computing: Abacus to Video Games
Lesson 3 - Introduction to the Oracle Corporation
Lesson 4 - History of the Database
Lesson 5 - Major Transformations in Computing

Database Design - Section 2
Lesson 1 - Conceptual and Physical Models
Lesson 2 - Entities and Instances
Lesson 3 - Attributes and Unique Identifiers
Lesson 4 - DJs on Demand (Example Project)
Lesson 5 - The Missing Link

Database Design - Section 3
Lesson 1 - Identifying Relationships
Lesson 2 - ER Diagramming Conventions
Lesson 3 - Drawing Relationships and Speaking ERDish
Lesson 4 - Data vs. Information
Lesson 5 - Matrix Diagram

Database Design - Section 4
Lesson 1 - Video Store
Lesson 2 - Global Fast Foods (Progressive Project)
Lesson 3 - Supertypes and Subtypes
Lesson 4 - Documenting Business Rules
Lesson 5 - Review and Quiz 2

Database Design - Section 5
Lesson 1 - Relationship Transferability
Lesson 2 - Relationship Types
Lesson 3 - Resolving Many-to-Many Relationships
Lesson 4 - Normalization and First Normal Form
Lesson 5 - Review and Quiz 3

Database Design - Section 6
Lesson 1 - Finding a Context
Lesson 2 - Source Document Receipt
Lesson 3 - Source Document: Price List
Lesson 4 - Refining Global Fast Foods
Lesson 5 – Second Normal Form

Database Design - Section 7
Lesson 1 - Review of Unique Identifiers
Lesson 2 - Third Normal Form and Identification
Lesson 3 - Arcs
Lesson 4 - Hierarchies and Recursive Relationships
Lesson 5 - Review
Database Design - Section 8
Lesson 1 - Modeling Historical Data
Lesson 2 - Case Study: International Oracle User's Group (IOUG)
Lesson 3 - What is a Consultant?
Lesson 4 - Overcoming the Fear Factor
Lesson 5 - IOUG Case Study Presentation

Database Design - Section 9
Lesson 1 - Interview with the Director of the Animal Shelter
Lesson 2 - Business Rules of the Animal Shelter
Lesson 3 - Creating the Animal Shelter ERD
Lesson 4 - Presentation to the Animal Shelter Client
Lesson 5 - Final Revisions to the Animal-Shelter ERD

Database Design - Section 10
Lesson 1 - Modeling Change: Time
Lesson 2 - Modeling Change: Price
Lesson 3 - Adding the Time Element to the Animal-Shelter ERD
Lesson 4 - Leaders in Information Technology
Lesson 5 - Review

Database Design - Section 11
Lesson 1 - What About Me?
Lesson 2 - Drawing Conventions for Readability
Lesson 3 - Generic Modeling
Lesson 4 - Introduction to Relational Database Concepts
Lesson 5 - Review

Database Design - Section 12
Lesson 1 - The Changing Nature of Work
Lesson 2 - Basic Mapping: The Transformation Process
Lesson 3 - Relationship Mapping
Lesson 4 - Subtype Mapping
Lesson 5 - Introduction to HTML DB: Music Tables

Database Design - Section 13
Lesson 1 - SQL Introduction: Querying the Database
Lesson 2 - Basic Table Modifications
Lesson 3 - Teaming Up
Lesson 4 - Project Overview and Getting Started
Lesson 5 - Project Management: Final Presentation Checkpoint

Database Design - Section 14
Lesson 1 - System Development Life Cycle
Lesson 2 - Creating Tables for the Final Presentation
Lesson 3 - Overview of Final Presentation
Lesson 4 - Preparing Written Documentation
Lesson 5 - Preparing Visual Materials
Database Design - Section 15
Lesson 1 - Review, Refine, and Rehearse
Lesson 2 - Final Presentations
Lesson 3 - Final Presentations
Lesson 4 - Final Presentations
Lesson 5 - You've Earned It

Database Design - Section 16
Lesson 1 - Oracle Database Environment
Lesson 2 - Relational Database Technology
Lesson 3 - Using Applications
Lesson 4 - Career Portfolio: Roadmap to Your Future
Lesson 5 - Anatomy of a SQL Statement

Database Design - Section 17
Lesson 1 - Working with Columns, Characters, and Rows
Lesson 2 - Practice Exercises and Quiz
Lesson 3 - Work Experience and Community Involvement
Lesson 4 - Limit Rows Selected
Lesson 5 - Comparison Operators

Database Design - Section 18
Lesson 1 - Logical Comparisons and Precedence Rules
Lesson 2 - Sorting Rows
Lesson 3 - Practice Exercises and Quiz
Lesson 4 - Mock Interview
Lesson 5 - Introduction to Functions – Single-Row Functions