Oracle Database 12c
1Z0-061 & 1Z0-062
Course Syllabus
32 Hours

Course Description

As the number one database organization in the world, Oracle Database 12c coursework prepares students for understanding important database features, functions, and tasks. With the 12c release, Oracle Database is re-engineered for Cloud computing, and places an emphasis on the full set of Database Administrator skills. This course covers the objectives for the **Oracle Database 12c Administrator Certified Associate** certification exams:

- **1Z0-061 - Oracle Database 12c: SQL Fundamentals**
  AND
- **1Z0-062 - Oracle Database 12c: Installation and Administration**

Learning Objectives

Upon completion of the course, students will understand:

- Data models, Entity Relationship Model, Oracle (HR) sample schema, and features of SQL Developer; Oracle's free integration development environment and key components of relational and object relational database management systems
- Features and functionality of SQL*Plus, retrieving data using SQL select statement, including arithmetic expressions, Null values, column aliases, literal strings, and duplicate rows
- Identification of null values defined in SQL and how they affect arithmetic expression outcomes, Oracle conversion functions, conditional expressions, and how to report aggregated data using group functions
- How to join tables together to view information across multiple tables, how to write subqueries, advanced features of SELECT statements used to obtain values based on an unknown conditional value
- How to use SET operators in a SQL statement, how to create a table and work with various constraints associated with a table, and how to work with tables using DDL
- Major architectural components of Oracle Database 12c including memory structures and any background processes; logical and physical storage structures, tools to manage a database instance including SQL*Plus, SQL Developer, Enterprise Manager Database Express, and Oracle Enterprise Manager Cloud Control
- How to identify types of failures that can occur in an Oracle database, how to prepare a database for failure recovery by using checkpoints, log files, and flash recovery area and ARCHIVELOG mode; how to perform different types of backups, need for performing recovery and use of tools such as the Recovery Manager (RMAN) and Data Recovery Advisor for file recovery operations
- Configuration of Database Resource Manager to access and create resource plans; create, configure, and administer consumer groups; activate a resource plan and monitor the Resource Manager, how to simplify management tasks by using the Scheduler to create, program, schedule, and monitor jobs, and how to access and use My Oracle Support
- Enterprise Manager Cloud Control to monitor performance, how to use AMM, ADDM, and the different advisors to obtain necessary information to accurately performance tune the instance, as well as planning for the Oracle software installation and the Grid Infrastructure, as well as how to install the Oracle Database 12c databases and post-installation tasks

Course Format

Oracle Database 12c is a self-paced, online course delivered through the learning management system Skillsoft. The site to access the coursework is [su.skillport.com.](su.skillport.com) Login credentials will be provided to you on the cohort launch date. If you do not receive them by the launch date, please check your Spam/Junk folder of your email and/or contact

your advisor or O2O program coordinator. Once you have logged into your account, you can locate the coursework by selecting "View My Learning Plan."

Coursework is delivered through videos, tutorials, and tests. No textbooks are required for the course; however, students are encouraged to utilize additional resources to assist with certification preparation. Resource Guides with lists of supplemental study materials for each certification are available at http://libguide.get-vet.syr.edu/curriculum/.

Course Completion Requirements

Oracle Database 12c coursework is due within 90 days from the assignment date. The course hours listed at the top of the syllabus reflect the time it would take to click through the slides and do not account for taking notes or the end of module tests. You must complete all seven modules in Topic 1, all eight modules in Topic 2, and all 3 modules in Topic 3. Successful completion of a module is marked after you review the lesson videos and score 80% or higher on the end of module tests.

At the beginning of a module, you will be asked to take a pre-test. Scoring 80% or higher on the pre-test signifies competence in the information that will be covered; you will therefore be waived from completing the module. A non-credit certificate of completion will be awarded for successful completion of the coursework.

Industry Certification Requirements

In order for the program to fund your Oracle Database 12c Administrator Certified Associate certification exams you will need to meet the associated practice exam requirements. Your advisor or O2O program coordinator will provide you with access to the practice exam as well as completion instructions once you have finished the coursework.

Support

- For technical support, please contact Skillsoft Support at support.skillsoft.com
- For course content support, please utilize Skillsoft's Mentoring feature
  - o Search the exam number in the top-right search bar within your Skillport account
  - o The mentoring feature for that exam will populate under Resources
  - o This feature exists for both exams
- For program support or questions, please contact your advisor or O2O program coordinator

Course Outline

Topic 1: Oracle Database 12c - Introduction to SQL

1.1 Oracle Database 12c: Introduction to SQL: Relational Database and SQL Developer

1.2 Oracle Database 12c: Introduction to SQL: SQL*Plus and SELECT Statement

1.3 Oracle Database 12c: Introduction to SQL: Restrict, Sort, and Customize Output

1.4 Oracle Database 12c: Introduction to SQL: Data Conversion and Aggregating Data

1.5 Oracle Database 12c: Introduction to SQL: Working with Joins and Subqueries

1.6 Oracle Database 12c: Introduction to SQL: Data Manipulation Language

1.7 Oracle Database 12c: Introduction to SQL: Working with SET Operators and DDL

Topic 2: Oracle Database 12c: Administration

2.1 Oracle Database 12c: Administration: Database Architecture and Management Tools

2.2 Oracle Database 12c: Administration: Manage the Database Instance

2.3 Oracle Database 12c: Administration: The Network Environment and User Security

2.4 Oracle Database 12c: Administration: Storage Structures and Undo Data

2.5 Oracle Database 12c: Administration: Data Concurrency and Auditing

2.6 Oracle Database 12c: Administration: Backup, Recover, and Move Data

2.7 Oracle Database 12c: Administration: Maintenance and Performance Tuning

2.8 Oracle Database 12c: Administration: Resource Manager, Scheduler, and Support

Topic 3: Oracle Database 12c: Install and Upgrade

3.1 Oracle Database 12c: Install and Upgrade: Database Architecture

3.2 Oracle Database 12c: Install and Upgrade: Installation

3.3 Oracle Database 12c: Install and Upgrade: Upgrading