

# Oracle® Certification Program Candidate Guide

*Oracle Database 10g™ Administrator Certified Associate*  
*Oracle Database 10g™ Administrator Certified Professional*  
*Oracle Database 10g™ Administrator Certified Master*

*May 2006*

**ORACLE®**

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**10g Certified Associate**

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**10g Certified Professional**

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**10g Certified Master**

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*Oracle Candidate Certification Guide*

*Oracle Database 10g™ Administrator Certified Associate*

*Oracle Database 10g™ Administrator Certified Professional*

*Oracle Database 10g™ Administrator Certified Master*

*May 2006*



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Visit the Oracle Certification Program website at <http://www.oracle.com/education/certification/>

# 1 *The Benefits of Oracle Certification*

The demand for Oracle technical professionals is growing at an incredible pace. But individuals, experienced or new to the profession, need to know what skills make them attractive to employers. Employers look for ways to distinguish employees and prospective employees who have the solid foundation of skills needed for effective performance.

The Oracle Certification Programs help the IT industry make these distinctions by establishing a standard of competence in key entry level and professional job roles.

An Oracle certification is a valuable, industry-recognized credential that signifies a proven level of knowledge and ability. Each higher level of Oracle certification brings a higher standard of benchmarked skill and ability, which leads to greater opportunities and higher remuneration.

***“Technical certifications have evolved from a hiring tool to a screening tool: If you don’t have them, you aren’t viewed as a serious candidate.”***

## **Benefits to the Technical Professional**

An ***Oracle Certified Associate (OCA)*** credential demonstrates that you have a solid understanding of the foundation skills of a given job role that can be applied at an apprentice or entry level.

By earning your OCA designation you improve your chances of getting entry-level job opportunities. The OCA is the stepping stone to starting a successful career as an Oracle Professional.

After OCA, by becoming an ***Oracle Certified Professional (OCP)*** you demonstrate your understanding of the full range of skills required by Oracle professionals in your chosen job role. The OCP is in high demand in today's marketplace, and the demand for new OCPs grows with each new release of an Oracle product. An Oracle certification helps raise your visibility and increases your access to the industry's most challenging and rewarding opportunities.

***“Oracle’s certification strength in a declining economy is due in part to the fact that more complex, high-level certifications appear to be less vulnerable”<sup>2</sup>***

The ***Oracle Certified Master (OCM)*** is the highest credential an Oracle professional can earn in the Oracle Certification Program. An Oracle DBA Certified Master is a top-level Oracle expert who has in-depth knowledge of the Oracle database technology and industry experience managing mission-critical Oracle database systems and applications. An OCM is considered an expert within an organization, among peers, and across the industry.

The true value of earning an Oracle certification credential is increased opportunity. With more opportunities come career growth, greater stability, and higher remuneration.

***“Given the key importance of data as an organizational asset, it should come as no surprise that DBAs remain in high demand and that related training certification programs are popular even in this time of economic trouble... By the numbers, Oracle leads the DBMS/DBA certification area.”<sup>3</sup>***

*1 Source: Information Week, Employers Raise the Bar on Certification, 2002*

*2 Source: IDC Certification Report and Forecast 2002 - 2006*

*3 Source: CertMag, Certified Expert: Working as a Database Administrator, January 2003*

### **Benefits to the IT Employer**

The Oracle Certification Programs are also valuable to hiring managers who want to hire right candidates for critical IT positions. For companies that send employees through annual IT training, certification helps ensure a return on the training investment by validating the knowledge and understanding gained in training sessions. Companies can also combine certification with an employee development program to enhance employee loyalty and performance on the job. Hiring certified professionals can have a direct impact on a company's success.

# 2

## ***Oracle Database 10g Administrator Certified Associate Oracle Database 10g Administrator Certified Professional Oracle Database 10g Administrator Certified Master Paths***

### **Oracle Database 10g Certification: Overview**

The expertise of Oracle database administrators (DBAs) is integral to the success of today's increasingly complex system environments. Their critical work requires a broad understanding of the architecture and processes of the Oracle database, as well as plenty of hands-on experience in solving problems. The best DBAs know they stand between optimal performance and an event that could bring their company to a standstill.

***“Currently, Oracle skills remain the most sought-after database skills in the IT marketplace.”<sup>1</sup>***

### **Oracle Database 10g Administrator Certified Associate (OCA)**

The Oracle Database 10g Administrator Certified Associate (OCA) credential is the first step toward success as an Oracle database professional. It is designed to provide a foundation in the administration of Oracle Database 10g. This entry-level qualification requires completion of only one exam. The OCA credential is a building block (and a prerequisite) in the process to receive the Oracle Certified Professional (OCP) and Oracle Certified Master (OCM) credentials.

### **Oracle Database 10g Administrator Certified Professional (OCP)**

The second and most recognized tier of the Oracle Certification Program is the Oracle Database 10g Administrator Certified Professional. The Oracle Certified Professional credential is an advanced qualification for Oracle Certified Associates

and requires candidates to first earn the 10g OCA credential and then to pass only one additional exam and to have met the hands-on course requirement. Oracle Database 10g OCPs have the skills to set up and manage critical Oracle Database 10g functions and to keep the database running at maximum efficiency. In order to gain hands-on and classroom experience, all OCP candidates are required to complete one Oracle University hands-on course from Oracle University or one of its authorized partners. This training is the best preparation for the OCP exam and will add both book and practical learning to all those who become certified. The OCP credential will provide the candidates with the recognition that will lead to increased opportunity and more rewarding careers.

**View the chart on Page 5 for a list of the required tests and the course requirements to earn the Oracle Database 10g OCP credential.**

### **Oracle Database 10g Certified Master (OCM)**

The Oracle Database 10g OCM credential is for the Oracle database guru—the senior database professional with both classroom and on-the-job experience. The prerequisites are that the candidates earn an Oracle Database 10g OCP credential and complete the advanced-level coursework. The final stage requires that the candidates prove their skills through an intensive, two-day, hands-on practical examination.

Currently, the Oracle Database 10g OCM practicum and the credential requirement are under development. Further details will be available in late 2005

## **Upgrading Your Current OCP DBA Credential to Oracle Database 10g**

### **Oracle9i to Oracle Database 10g Upgrade Path (1 test):**

Candidates certified as Oracle9i DBA OCP may pass the exam “1Z0-040 Oracle Database 10g New Features for Administrators” to upgrade their certification to Oracle Database 10g.

### **Oracle8i to Oracle Database 10g Upgrade Path (1 test):**

Candidates certified as Oracle8i DBA OCP may pass exam 1Z0-045 Oracle Database 10g New Features for Oracle8i OCPs to upgrade their certification to Oracle Database 10g.

## **Candidate Qualifications**

Most candidates for DBA certification combine up-to-date training with some level of on-the-job experience. There is no “typical” candidate. Many of the questions on the OCP exams are based on real-job scenarios. In addition to the appropriate training, you will need hands-on experience with the software. Trial software versions and hands-on labs are included in most Oracle University training products.

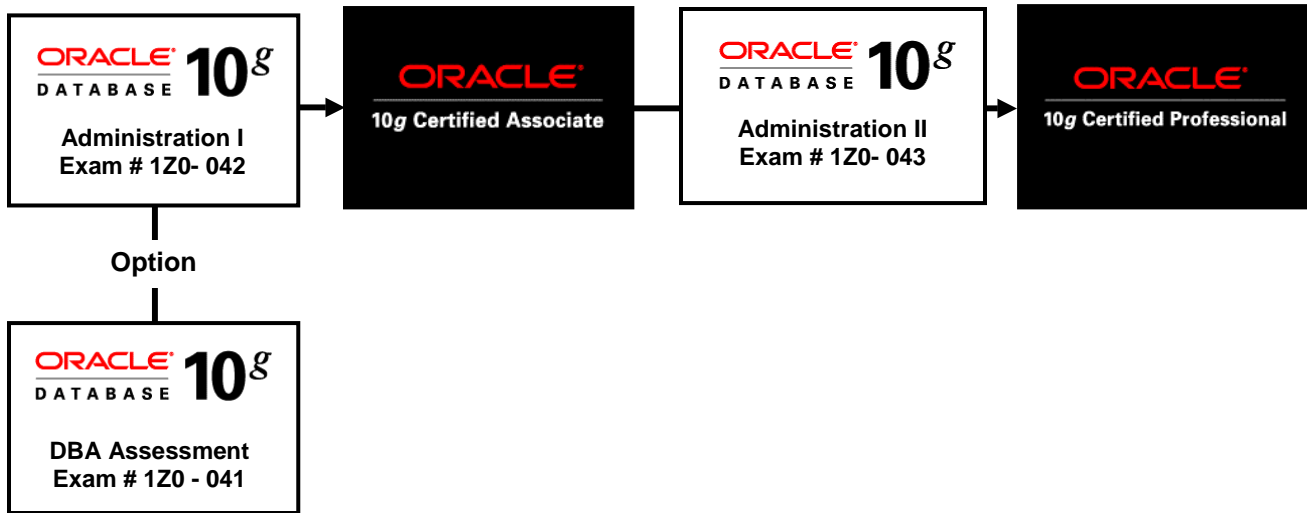
*1 Source: IDC Certification Report 2002*

## Required Exams and Selected Hands-On Courses for the Oracle Database 10g Certification Paths

Oracle customers and business partners demand hands-on experience on all aspects of Oracle's database from their Oracle Certified Professionals.

### Exams Required

Oracle Database 10g Administrator Certified Associate  
Oracle Database 10g Administrator Certified Professional



## Oracle Database 10g Hands-On Course Requirement

To earn the Oracle Database 10g Certified Professional credential, all new DBA OCP candidates are required to pass the exams listed on page 5 and attend one instructor-led inClass or instructor-led online course from the list below. Oracle University's rigorous certification training and lab-based focus will ensure that all Oracle Certified Professionals obtain real hands-on experience using the Oracle Database 10g technology and tools.

- Oracle Database 10g: Administration Workshop I
- Oracle Database 10g: Administration Workshop II
- Oracle Database 10g: Introduction to SQL
- Oracle Database 10g: New Features for Administrators
- Oracle Database 10g: Program with PL/SQL

- Oracle Database 10g: Real Application Clusters
- Migrate from SQL Server to Oracle Database 10g
- Oracle Database 10g: Implement Streams
- Oracle Enterprise Manager 10g Grid Control
- Oracle Database 10g: SQL Tuning Workshop
- Oracle Database 10g: New Features for Oracle8i DBAs

### Accepted Hands-On Requirement Training Facilities

Candidates must attend their approved course through one of these providers:

- Oracle University Training Center
- Oracle Authorized Education Center
- Oracle Authorized Education Partner
- [Oracle Academic Initiative](#)
- [Oracle Internet Academy](#)
- [Oracle Workforce Development Program](#)

### Requirement Exemptions

All new Oracle Database 10g Certified Professional candidates will not receive their certification until they have completed the exam requirements, met the hands-on course requirement and submitted the Hands-on Course Requirement Form.

DBA Certified Professionals who have earned their DBA OCP credential on a previous release (Oracle7.3, Oracle8, Oracle8i, and Oracle9i) are not required to meet the hands-on course requirement and should not submit the Hands-on Course Requirement Form.



## OCP Hands-On Course Requirement Form

All Oracle9i and Oracle Database 10g DBA OCP candidates who are required to meet the hands-on course requirement will be required to submit the new Hands-On Course Requirement Form.

Submitting the Hands-on Course Requirement form will accomplish two tasks related to your certification:

1. It will trigger a request for Oracle to verify your attendance of an approved hands-on course.
2. After your attendance has been verified by Oracle, the form will generate a permanent record in Oracle and Prometric's certification databases, showing that you have met the requirement. The record will become part of your personal certification history, identifiable as "OCP Hands-On Course Requirement".

To eliminate any delays with your OCP DBA certificate, submit your form as soon as you have attended one of the approved courses to meet the DBA OCP hands-on requirement.

If you are not sure whether you are required to meet the hands-on course requirement, view the requirements for the certification path you are pursuing.

## How to Submit the Oracle University Hands-on Course Requirement Form

Oracle OCP candidates will not receive their certificates until their OCP Hands-on Course Requirement Form has been verified. Select the OCP Track you are pursuing to view instructions on submitting your Hands-on Requirement Form.

1. [Oracle9i Database Administrator Certified Professional](#)
2. [Oracle Database 10g Administrator Certified Professional](#)

## Who Should Complete the Oracle University Hands-On Requirement Form?

1. ALL candidates in the Oracle9i or Oracle Database 10g DBA OCP track who have attended their approved hands-on course.
2. [Oracle Academic Initiative](#) students
3. [Oracle Internet Academy](#) students
4. [Oracle Workforce Development Program](#) students

## Who Should NOT Complete the OCP Hands-On Requirement Form

1. Candidates who are upgrading their existing OCP DBA credential from a previous version.
2. Candidates who are required to attend a hands-on course but who have not yet attended it.

## How to Submit the Oracle OCP Hands-On Course Requirement Form:

- Submit the form only AFTER you have attended your approved hands-on course.
- Before you start, locate the following:
  - ⇒ Your **Prometric Testing ID** (found on all Oracle exam score reports).
  - ⇒ Your registration confirmation e-mail from Oracle University for your hands-on course. If you do not have your course confirmation e-mail, you will need your hands-on course information: Course Title, Course Date, Course Location, and Course Facility Name (the name of the company or institute you took your hands-on course from).

- ⇒ Go to <http://oracle.prometric.com> and either sign in (if you already have an account) or select **First Time Registration** to create a new account. You will need to provide your Prometric Testing ID and your correct mailing and e-mail addresses during the setting up of your new account.
- ⇒ Select **Take Test** from the menu and enter the keycode **“10gcourse”** in the **Private Tests** box.
- ⇒ Complete the requirement form. **NOTE** that there are two steps to this form; please make sure to complete both steps by following all instructions on your screen.

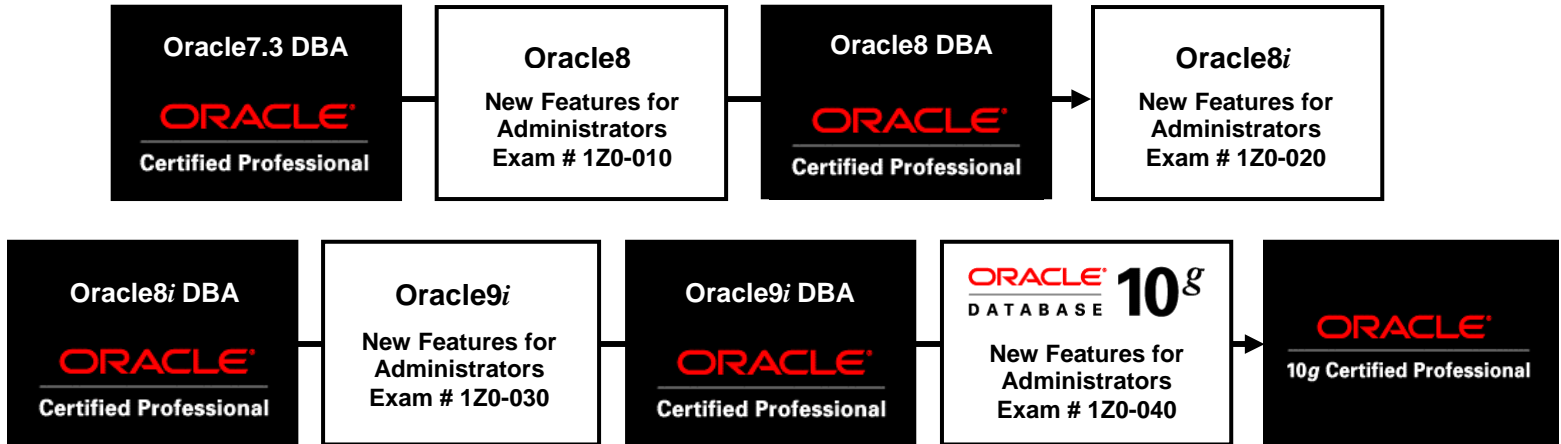
If you have any questions regarding the Oracle OCP Hands-On Course Requirement or about how to enter your information, please contact Oracle at [ocpreq\\_ww@oracle.com](mailto:ocpreq_ww@oracle.com).

## OCP DBA Upgrade Certification Paths

Follow the paths shown below to upgrade your current Oracle DBA OCP credential to Oracle Database 10g.

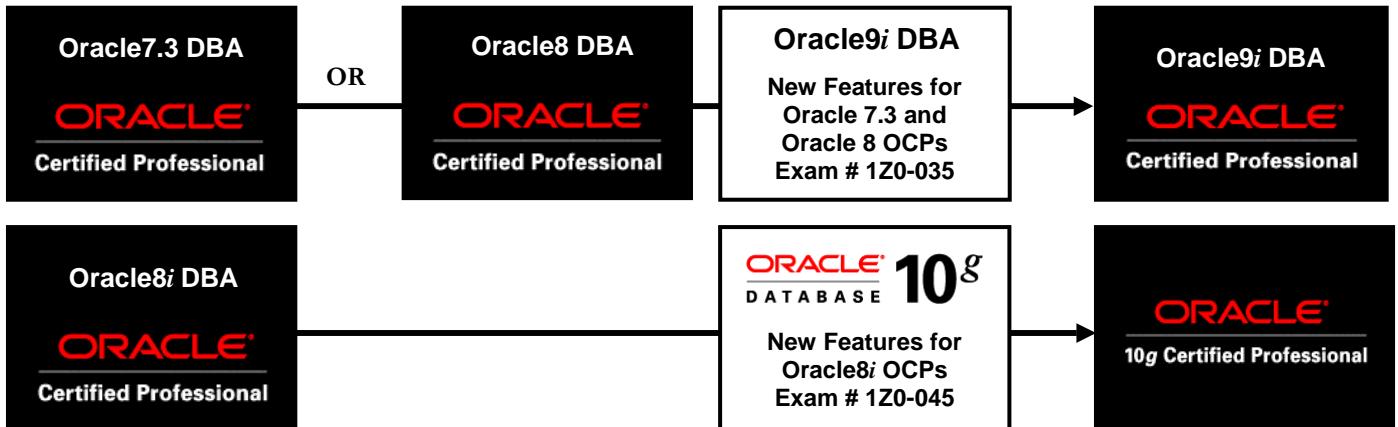
### Single Release Upgrade Path

Generally, one exam is required for OCPs to upgrade to each new release of an Oracle DBA track. For example, one exam upgrades the Oracle7.3 credential to Oracle8, one exam from Oracle8 to Oracle8*i*, one exam from Oracle8*i* to Oracle9*i*, and one exam from Oracle9*i* to Oracle 10g.

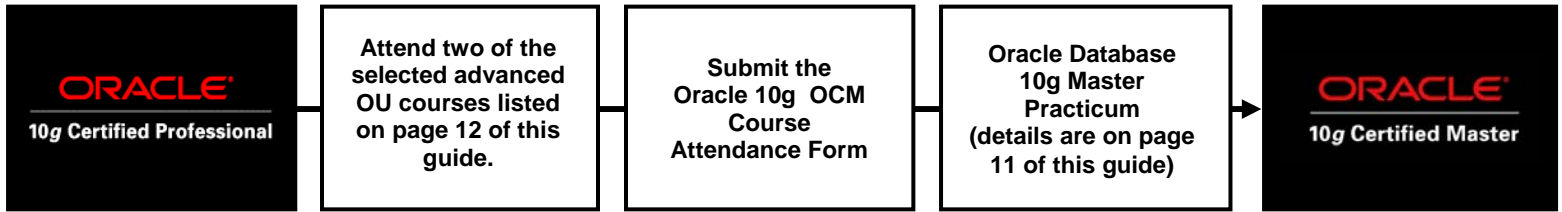


### Bridged Release Upgrade Exams

OCPs with older credentials may skip intervening releases and upgrade to a current technology with a single exam. For example, one exam upgrades Oracle7.3 and Oracle8 DBAs directly to Oracle9*i*, and another exam upgrades Oracle8*i* DBAs directly to Oracle Database 10g.



**Oracle Database 10g Certified Master Certification Path**  
Follow the path in the diagram below to earn your Oracle DBA  
10g Certified Master credential.



## Oracle Database 10g Administrator Certified Master Requirements

To earn your Oracle Database 10g Administrator Certified Master credential, candidates are required to meet the requirements stated below.

### Oracle DBA 10g Certified Master (OCM)

The Oracle Database 10g OCM credential is for the most advanced Oracle database administrator. This individual has comprehensive and extensive experience on a wide variety of topics including installation, troubleshooting, backup and recovery and tuning. The prerequisites require that candidates earn an Oracle Database 10g OCP credential and complete advanced-level coursework. The final stage requires that candidates demonstrate their skills through an intensive two-day hands-on practical examination.

### Oracle Database 10g OCM Practicum

To earn the Oracle Database 10g Administrator Certified Master credential candidates must pass the practicum exam.

The Oracle DBA 10g Oracle Certified Master practicum is a two day live application event where participants are required to complete a series of scenarios and resolve technical problems that will test their expertise in an Oracle Database 10g environment. Participants will be scored on their ability to successfully complete assigned tasks.

The practicum will be conducted at an Oracle University facility in each global region. Contact your local Oracle

University representative to find the Practicum location nearest you. Visit [http://www.oracle.com/education/contact\\_info.html](http://www.oracle.com/education/contact_info.html) to view your local Oracle University contact information.

### Practicum Registration Prerequisites

Prior to registering for the Oracle Certified Master exam, a candidate must complete three requirements:

- Earn the Oracle Database 10g Administrator Certified Professional (OCP) credential.
- Attend two advanced DBA courses from Oracle University. Advanced courses are taught by top Oracle University instructors and offer hands-on experience for topics that may be addressed during the exam. Few advanced courses are offered in an online format, however if available, the equivalent instructor-led Live Web Class is acceptable.
- Submit your OCM Advanced Course Attendance Form to enable the verification of your course attendance.

Below is a listing of the Oracle University courses that meet the advanced course requirement.

## Oracle Database 10g OCM Practicum Course Prerequisite

The OCM Practicum, candidates must attend two of the following courses listed below.

- Oracle Database 10g: Program with PL/SQL
- Oracle Database 10g: Program with PL/SQL LWC
- Oracle Enterprise Manager 10g Grid Control
- Oracle Database 10g: SQL Tuning Workshop
- Oracle Database 10g: Real Application Clusters
- Oracle Database 10g: Data Guard Administration
- Oracle Database 10g: Implement Streams
- Oracle Database 10g: Advanced PL/SQL
- Oracle Database 10g: Security
- Migrate from SQL Server to Oracle Database 10g
- Migrate from Sybase to Oracle Database 10g
- Oracle Spatial 10g: Advanced
- Oracle Spatial 10g: Fundamentals

- Oracle9i: Program with PL/SQL
- Oracle9i: Advanced PL/SQL
- Oracle9i: Implement Advanced Queing
- Oracle9i: SQL Tuning Workshop
- Oracle9i Database: Advanced Instance Tuning
- Oracle Net Services: Advanced Administration
- Oracle9i Database: Advanced Replication
- Oracle Enterprise Manager 9i
- Managing Oracle on Linux
- Oracle9i Database: Implementing Oracle Streams
- Oracle9i Database: Security
- Oracle 9i: Data Guard Administration
- Oracle9i: Real Application Clusters
- Oracle9i Database: Advanced Backup and Recovery using RMAN
- Oracle9i: Data Warehouse Administration
- Oracle9i Database: Implement Partitioning

## Oracle DBA 10g Certified Master Practicum

An OCM candidate must successfully pass the Oracle DBA 10g Certified Master practicum after having completed the required OU advanced learning requirements listed on the previous page.

### Minimum Participant Skills

The Oracle 10g Certified Master credential is for Oracle 10g DBA OCPs with advanced training and at least 3 - 4 years of professional enterprise-level Oracle experience. Successful OCM candidates are those individuals who have up-to-date training and in-depth experience with each of the exam objectives and have extensively practiced backup, restore, and recovery operations.

#### Recommended minimum skills include:

1. Proficient with Oracle10g SQL
2. Working knowledge of LINUX command language that includes:
  - a. Formatting and executing basic OS commands
  - b. Creating and navigating through directory structures
  - c. File management using copy, move, and delete
  - d. Linux environment text editors
  - e. Setting environment variables
3. The ability to locate and launch Oracle executables that include:
  - a. RMAN utility
  - b. Oracle Net Manager
  - c. Oracle Net Configuration Assistant
  - d. OEM
  - e. Listener Utility
  - f.OMS
  - g. Oracle Password Utility
  - h. Database Creation Assistant

4. Proficient with using Oracle Enterprise Manager
5. Proficient in using Oracle Net Manager and the Oracle Net Configuration Assistant to configure networking
6. Advanced knowledge and use of Oracle10.1.0.4 Enterprise Server technology and features
7. Familiarity with navigating through online Oracle documentation
8. Proficient with using Mozilla 1.6 browser software

### Information About the Exam

#### Software Environment

Red Hat Enterprise Linux AS 3 operating system, Oracle Database 10g 10.1.0.4, and Oracle Enterprise Manager 10g Grid Control 10.1.0.3 are used during exam.

Participants can choose to work with in either Linux and Oracle CLI or GUI environment when available during exam.

Candidates will also have access to a complete, non-searchable Oracle documentation set.

#### Exam Administration

##### Requirements

Participants taking the Oracle 10g DBA OCM exam are subject to the rules and guidelines specified in the Oracle Certification Program Candidate

Agreement. Please read this agreement before attending your OCM event.

All participants must display valid photo identification in order to be admitted to the exam. Exam participants are also required to know their Prometric Testing ID at the time of sign-in on the first day of the event. Participants may contact Prometric for help with this.

### **Exam Delivery**

Exam participants work through eight scenarios that are based on the Oracle9i Certified Master Exam objectives.

The exam is conducted in a dedicated Oracle University classroom environment and administered to ensure fairness and security. An Oracle proctor facilitates the event by delivering scenarios and adhering to specific scenario time frames. The proctor does not score the exam and does not have access to scoring information.

Participants are randomly assigned a dedicated server that is their workstation for each day of the event. Servers are isolated from the Internet and Intranet in an effort to maintain security. It is the responsibility of the participant to effectively manage the database and instance environment on their server to

ensure performance and be able to recover from failure scenarios. The inability to recover from a failure scenario may impact a participant's completion of subsequent scenarios.

All scenarios have time limitations that require participants to employ best practices in order to successfully complete assigned tasks. Each scenario explicitly describes the required end state that participants must achieve.

### **Scoring**

Participants are scored on their ability to complete assigned tasks and to recover from various database failure scenarios. Data from each participant's environment is collected at the end of each scenario and this data is used to determine the final score. In some scenarios, participants may receive partial credit, however the inability to recover from a failure scenario results in zero credit for an entire scenario. The proctor is not responsible for scoring the exam and will not have scoring information during the event.

Participants will be notified of their final score 4 - 5 weeks following the exam. Upon attaining a successful score, a participant is awarded the Oracle9i DBA OCM credential. If a participant does not achieve a passing score then they are required to retake the entire exam at a later date.



## Practicum Objectives and Areas of Focus

Review the Oracle Database 10g Administrator Certified Master Practicum objectives to gain insight into what to expect before completing the practicum. The objectives are located within the Test Content Checklist in the back of this guide.

### Oracle Certified Master Course Attendance Form

Submitting the OCM Course Attendance Form will accomplish two tasks related to your OCM requirements:

- It will trigger a request for Oracle to verify that you have met the OCM prerequisites.
- After your prerequisites have been verified by Oracle, the form will generate a permanent record in Oracle and Prometric's certification databases, showing that you have met the OCM prerequisites. The record will become part of your personal certification history, identifiable as "OCM Advanced Course Attendance".

### How to Submit the OCM Course Attendance Form:

1. Submit the form only **AFTER** you have attended your two DBA Advanced courses.
2. Before you start, locate the following:
  - ⇒ Your **Prometric Testing ID** (found on all Oracle exam score reports).
  - ⇒ Your registration confirmation email from Oracle University for your two advanced courses. If you don't have your course confirmation emails, you will need your course information: Course Titles, Course Dates and Course Locations and Course Facility Names (the name of the company or institute you took your advanced course from).

- ⇒ Go to <http://oracle.prometric.com/> and either sign in (if you already have an account) or select **First Time Registration** to create a new account. You will need to provide your Prometric Testing ID and your correct mailing and email addresses during the setup of your new account.
- ⇒ Select **Take Test** from the menu and enter the keycode '**ocmcourses**' in the **Private Tests** box.
- ⇒ Complete the requirement form.

If you have any questions regarding the OCM Course Attendance Prerequisite or about how to enter your information, please contact Oracle at [ocpreq\\_ww@oracle.com](mailto:ocpreq_ww@oracle.com).

**Oracle Database 10g DBA  
Certified Master Upgrade for  
Oracle9i DBA OCMs**

Oracle9i Database Administrator Certified Masters may upgrade their OCM credential to 10g by passing a one day practical exam. The Oracle Database 10g OCM Upgrade practical exam is currently in development. The below information regarding the 10g OCM upgrade is currently available. Additional information and release dates of the OCM Upgrade practical exam will be available soon.

- There will be no related course attendance prerequisite to attend the OCM upgrade exam.
- Only Oracle9i DBA OCM's may attend/complete the 10g DBA OCP Upgrade.
- The one day OCM Upgrade exam will be available through certain Oracle University Education Centers.
- OCM Upgrade exam content has not been finalized and is not yet available. More information will be provided on this page as it becomes available.

If you have additional questions, contact the Oracle Certification Program at [ocpexam\\_ww@oracle.com](mailto:ocpexam_ww@oracle.com).

# 3 *Preparing for the Oracle Database 10g Tests*

Oracle recommends that you prepare for the Oracle Database 10g exams by combining learning and prep offerings from Oracle University with your own practice and experience. Start by reviewing the topics covered on the exam in the Test Content Checklist in this guide. Then look over the following preparation methods for a combination that suits your background.

## **Learn Oracle from Oracle**

There are a variety of options that allow complete flexibility to meet the needs of your schedule and budget. From intense in-class experiences with lots of hands-on labs to interactive online learning, Oracle University offerings are the best way to prepare to become an Oracle Certified Associate or Oracle Certified Professional. These courses lay the foundation of knowledge you will need to pass the Oracle Certification exams and provide a venue for hands-on practice.

Your local Oracle University representative can advise you on the best option. For more information, visit the Oracle University Web site at <http://www.oracle.com/education/>.

## **Preparing with Oracle University**

### **Instructor-Led inClass Training**

Build the in-depth knowledge and hands-on experience that you need to succeed in your job role with our most popular and comprehensive training option. From in-class demonstrations led by expert Oracle University instructors, to realistic hands-on labs, Instructor-Led inClass courses

provide you a dynamic learning environment.

### **Instructor-Led Online**

Receive live instruction at your home or office and save time and travel expenses with Instructor-Led Online training. Expert Oracle instructors deliver the same quality training as in our classrooms, during 4 hours of daily online instruction.

### **Self-Paced Online**

Learn at your own pace with a 90-day subscription to Oracle University courses delivered over the Internet. Leverage a variety of content such as pre-recorded instructor videos, demonstrations, product simulations and quizzes. Interact with expert Oracle instructors, who will assist you through the course material via online office hours

### **Self-Paced CD-ROM**

Study at your own pace with highly interactive Oracle University courses on CD-ROM. Reinforce your learning using the latest in multimedia instruction including video, animation, demonstrations, assessments and hands-on practices. Self-Paced CD-ROM courses offer a convenient, comprehensive, ongoing resource for you or your organization.

## **Additional Preparation Tools**

### **Practice Tests**

Oracle and Self Test Software have partnered to develop the highest quality practice tests available to individuals seeking Oracle Certified Associate and Oracle Certified Professional status. To purchase practice tests, visit the OCP Web site at

<http://www.oracle.com/global/us/education/certification/sts.html>.

## **Test Content Checklist**

Use the Test Content Checklist in this guide to identify all the test topics for which you must prepare. Oracle may make modifications to the Test Content Checklist. Visit the OCP Website, to view the [Exam Details List](#) to download the latest version of this guide or print out the exam objectives from the website before attending your exam appointments.

# 4 *Registering for Your Tests*

Oracle Certification Program exams are offered at Oracle University Testing Centers and through Prometric, the world's largest provider of testing to the information technology industry.

Many Oracle University locations now offer exams, and can serve as a convenient alternative for both preparation and exam writing at one facility. Follow the registration directions shown below for scheduling exams at Oracle University or an Authorized Prometric Testing Center (APTC).

All exams are computerized. A brief tutorial precedes each test to familiarize you with the test delivery system. You should attempt to answer every question on the exam because incomplete answers are scored as incorrect. A summary screen allows for navigation throughout the exam, with functions for proceeding forward and back among questions.

## **Reviewing the Candidate Agreement**

Candidates pursuing Oracle certification must accept the terms of the Oracle Certified Associate - Professional Candidate Agreement before taking the tests. You will be presented with the agreement on screen before the test starts. You can also review the agreement before your appointment by visiting the Oracle Certification Program Web site at <http://www.oracle.com/global/us/education/certification/canagreemt.html>

## **Scheduling Your Exam**

### **Prepare and Test at Oracle University**

Oracle University locations in many countries offer both exam preparations and the exams themselves from one convenient location. Visit the OCP Website's [Exam Registration](#) page to schedule an exam at an Oracle University location.

Make sure that you have both the number and title of the exam for which you are registering.

Regular exam fees are equivalent to \$125 US Dollars, plus any local taxes. The exam fee is payable to Oracle University. All discounts must be applied at the time of paying your exam fee.

Valid identification will be required when you attend your test appointment. To cancel or reschedule your test appointment, you must contact Oracle University. OU registration and cancellation policies apply to exam registrations.

## Test with Prometric

### APTC Online Registration

Register online at <http://prometric.com/>

1. APTC Telephone Registration-  
Call the Prometric Regional Service Center (RSC) serving your country during normal business hours (a list of RSCs is located on the last page of this guide).
2. Make sure that you have both the number and title of the exam that you are registering for. Schedule your exam appointment Monday through Saturday during normal authorized Prometric testing center hours. Hours vary by location.
3. When you register, ask the Prometric customer service representative for a list of valid forms of identification that you will need to present when you take your exam. You will not be allowed to take the test without valid identification.
4. Regular exam fees are equivalent to \$125 US Dollars, plus any local taxes.

The exam fee is payable to Prometric by any major credit card (VISA, MasterCard, American Express and Switch Cards) at the time of registration. All discounts must be applied at the time of paying your exam fee.

### Changing or Canceling Your Appointment with Prometric

To cancel or reschedule your test appointment, you must call the Prometric Regional Service Center. The cancellation policy by region is:

- The Americas: One business day in advance
- Asia Pacific: By midday (Sydney time) the previous business day

- EMEA: Two business days in advance
- Japan: Three business days in advance

Candidates who do not appear for the test or who cancel less than one business day prior to the test will not receive a refund.

# 5 *Taking Your Tests*

## **Taking a Test**

1. Arrive at the testing location at least 15 minutes prior to your scheduled appointment.
2. Sign the test log and present two forms of identification. One must be a government-issued photo identification. Both forms of identification must contain your signature.
3. The test administrator will give you a brief orientation and escort you to a computer terminal where you will take the test. You are not allowed to bring papers, books, bags, or calculators into the room.
4. Remember to adhere to the requirements set forth in Oracle Certification Candidate Agreement. You must agree to the terms and conditions in the agreement before completing any Oracle Certification exam. Any attempt to cheat, assist others, or remove exam content from the testing room will not be tolerated and may result in a zero score, disallowance of OCP credential, and/or even prosecution by law.

## **Obtaining Your Test Results**

You will receive your score report immediately after the test. Beta exam score reports are sent to candidates following analysis and scoring of the beta exam. Candidates completing a beta version of a test can expect their score reports 10-12 weeks following the beta period. Your results are automatically

forwarded to Oracle following testing. Please keep a copy of all test reports for your records.

## **Retaking a Test**

Candidates must wait 14 days before retaking a failed exam. There are no exceptions to this policy.

If you do not pass an Oracle Certification exam on the first attempt, Oracle encourages you to use the diagnostic feedback supplied with the score report to review the areas that need further study.

If you receive a low score, an Oracle University training course may be appropriate for you to gain more knowledge. Otherwise, if you only require skillset review in a few areas, we recommend you consult Oracle University Online Learning, where you will find each topic area available as a short course module. Most modules are only 45 minutes. Visit Online Learning at <http://www.oracle.com/education/oln/>.

# 6 *After You Are Certified*

## **Receiving Your Oracle Certification Welcome Kit**

You will receive your Oracle Certified Associate or Oracle Certified Professional certificate by mail from Prometric within 30 days after successfully completing all the required exams and applicable course requirements. You should use your certificate as verification of your Oracle Certification credential.

Oracle Database 10g OCP candidates who are required to meet the Hands-On Course Requirement will not receive their certificate until their course requirement has been verified. Oracle Database 10g OCP candidates may send their course information by completing the Webform. Select the “Hands-on Course Form” from the [Oracle Database 10g OCP path](#) Web page. View the Hands-On Course Requirement details on page 5 of this guide.

If you do not receive your Welcome Kit, send an e-mail to [fulfillment@prometric.com](mailto:fulfillment@prometric.com) and provide your name, Prometric ID number, current mailing address, and daytime phone number.

## **Oracle Certified Professional Members Web Site**

Upon completion of your Oracle Certified Professional credential, you will receive information on how to obtain a copy of the OCP logo in your Welcome Kit. The logo may be used on business cards and resumes.

You will also receive a letter of congratulations from Oracle that will

indicate how you can begin to access the OCP benefits that await you. This will include the access log in and password you will need to enter the OCP member online community.

The OCP Members site is available only to Oracle Certified Professionals, not Oracle Certified Associates.

## **Upgrade Your Certification to Oracle Certified Master**

Oracle Certified Professionals are highly recognized for their abilities to provide intermediate to advanced level DBA skills to the IT marketplace. In order to answer the growing need for more senior level DBAs as well as consultants and other specialists, Oracle encourages those looking to advance their careers to consider the Oracle Certified Master Program. The OCM designation can help demonstrate that an Oracle professional is truly at the top of the field, and has added benefits, credibility, and tools to make these experts even more successful. To find out more, see the OCP Website at <http://www.oracle.com/education/certification>.

## **Keeping Abreast of New Oracle Technology Releases**

1. Oracle is committed to keeping the Oracle Certification Program current with the latest technology. To ensure the value of your Oracle Certified Professional credential, you may find it advantageous to upgrade your certification to the latest release.



## Retirement of an OCP Track

Once Oracle announces the retirement of a track, you will have at least six months to pass the remaining exams in the retiring track. If you do not upgrade your certification by the deadline, you will be required to complete all tests within the new track to obtain the latest credential. Consult the OCP Web site for current testing requirements.

## Oracle Certification Program Fraudulent Activity Policies

Oracle Corporation reserves the right to take action against any candidate involved in fraudulent activities, including, but not limited to, fraudulent use of vouchers, cheating on an exam, alteration of score reports, alteration of completion certificates, violation of exam retake policies or other activities deemed fraudulent by Oracle.

If Oracle determines, in its sole discretion, that fraudulent activity has taken place, it reserves the right to take action up to and including, but not limited to, decertification of a candidate's OCP credentials, temporary, indefinite or permanent ban of a candidate from Oracle certification programs, notification to a candidate's employer, and notification to law enforcement agencies. If a candidate is found committing fraudulent activities, all fees previously paid to Oracle, or to Oracle's authorized vendors, will be forfeited and the candidate may be required to pay additional fees for services rendered.

## Updating Your Demographic Information

Visit the Prometric Web site at <http://prometric.com/> to update your demographic information.

Follow the steps below:

1. Log in to the site with your email address and password. If you have never registered online before, select the link to set up your online account.
2. In the left navigation bar under “Exam Services,” select “Update Profile.”
3. You may update your mailing address, telephone numbers, and your e-mail address.
4. Select “Next.” Your OCP Candidate information is now updated.

# 7 *Special Testing Opportunities*

## **Special Opportunities: Beta Tests**

Oracle will offer beta versions of OCP tests as new and updated questions are developed. Beta tests are generally offered at a discount from the regular test price. Participating in betatests is a good way to economize on your certification and to be among the first professionals to be certified on a new track or product release.

Beta score reports are sent to candidates following analysis and scoring of the beta test.

Visit the Oracle Certification Program Web site at

<http://www.oracle.com/education/certification/> to find beta opportunities. Oracle provides detailed descriptions of each beta offer to help you decide if the tests are right for you.

**Visit the Oracle Certification Program Web site at <http://www.oracle.com/education/certification/>.**



## Test Content Checklists

*The following test content checklists show the objectives covered in the OCP exams.*



# Test Content Checklist

## *Oracle Database 10g: Administration I Exam #1Z0-042*

### **Installing Oracle Database 10g Software**

- Identify system requirements
- Use Optimal Flexible Architecture
- Install software with Oracle Universal Installer
- Identify and configure commonly used environment variables

### **Creating an Oracle Database**

- Explain the Oracle database architecture
- Explain the instance architecture
- Use the management framework
- Use DBCA to Create a database
- Use DBCA to Configure a database
- Use DBCA to Drop a database
- Use DBCA to Manage templates

### **Managing Schema Objects**

- Create and modify tables
- Define constraints
- View the attributes of a table
- View the contents of a table
- Create indexes and views
- Name database objects
- Select appropriate data types
- Create and use sequences

### **Managing Data**

- Manipulate data through SQL using INSERT, UPDATE, and DELETE
- Use Data Pump to export data
- Use Data Pump to import data
- Load data with SQL Loader
- Create directory objects

### **PL/SQL**

- Identify PL/SQL objects
- Describe triggers and triggering events

### **Undo Management**

- Monitor and administer undo
- Configure undo retention
- Guarantee undo retention
- Use the Undo Advisor
- Describe the relationship between undo and transactions
- Size the undo tablespace

### **Monitoring and Resolving Lock Conflicts**

- Detect and resolve lock conflicts
- Manage deadlocks
- Describe the relationship between transactions and locks
- Explain lock modes within the Oracle Database 10g

## Exam #1Z0-042 Oracle Database 10g: Administration I (continued)

### Controlling the Database

- Start and stop SQL\*Plus
- Start and stop Enterprise Manager Database Control
- Start and stop the Oracle Listener
- Start up and shut down Oracle Database 10g
- Describe startup and shutdown options for the Oracle Database
- Handle Parameter files
- Locate and view the Database alert log

### Oracle Database Security

- Apply the principal of least privilege
- Manage default user accounts
- Implement standard password security features
- Audit database activity
- Register for security updates

### Oracle Net Services

- Use Database Control to Create additional listeners
- Use Database Control to Create Oracle Net service aliases
- Use Database Control to Configure connect time failover
- Use Database Control to Control the Oracle Net listener
- Use the Oracle Net Manager to configure client and middle-tier connections
- Use TNSPING to test Oracle Net connectivity
- Describe Oracle Net Services
- Describe Oracle Net names resolution methods

### Backup and Recovery Concepts

- Describe the basics of database backup, restore and recovery
- Describe the types of failure that may occur in an Oracle Database
- Describe ways to tune instance recovery
- Identify the importance of checkpoints, redo log files, and archived log files
- Configure ARCHIVELOG mode
- Configure a database for recoverability

## Exam #1Z0-042 Oracle Database 10g: Administration I (continued)

### Storage Structures

- Define the purpose of tablespaces and data files
- Create tablespaces
- Manage tablespaces (alter, drop, generate DDL, take offline, put on line, add data files, make read-only/read-write)
- Obtain tablespace information from EM and the data dictionary
- Drop tablespaces
- Describe the default tablespaces

### Administering Users

- Create and manage database user accounts
- Create and manage roles
- Grant and revoke privileges
- Control resource usage by users

### Oracle Shared Servers

- Identify when to use Oracle Shared Servers
- Configure Oracle Shared Servers
- Monitor Shared Servers
- Describe the shared server architecture

### Performance Monitoring

- Troubleshoot invalid and unusable objects
- Gather optimizer statistics
- View performance metrics
- React to performance issues

### Proactive Maintenance

- Set warning and critical alert thresholds
- Collect and use baseline metrics
- Use tuning and diagnostic advisors
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Manage the Automatic Workload Repository
- Describe server generated alerts

### Database Backups

- Create consistent database backups
- Back up your database without shutting it down
- Create incremental backups
- Automate database backups
- Monitor the flash recovery area
- Describe the difference between image copies and backup sets
- Describe the different types of database backups
- Backup a control file to trace
- Manage backups

### Database Recovery

- Recover from loss of a Control file
- Recover from loss of a Redo log file
- Recover from loss of a system-critical data file
- Recover from loss of a non system-critical data file



# Test Content Checklist

## *Oracle Database 10g: Administration II* *Exam #1Z0-043*

### Using Globalization Support Objectives

- Customize language-dependent behavior for the database and individual sessions
- Specify different linguistic sorts for queries
- Use datatype datatypes
- Query data using case insensitive and accent insensitive searches
- Obtain Globalization support configuration information

### Securing the Oracle Listener

- Secure the listener
- Remove default EXTPROC entry and add a separate listener to handle external procedure calls

### Configuring Recovery Manager

- Configure database parameters that affect RMAN operations
- Change RMAN default settings with CONFIGURE
- Manage RMAN's persistent settings
- Start RMAN utility and allocate channels

### Using Recovery Manager

- Use the RMAN BACKUP command to create backup sets and image copies
- Enable block change tracking
- Manage the backups and image copies taken with RMAN with the LIST and REPORT commands

### Diagnostic Sources

- Use the alert log and database trace files for diagnostic purposes
- View alerts using Enterprise Manager
- Adjust thresholds for tracked metrics
- Control the size and location of trace files

### Recovering from Non-Critical Losses

- Recover temporary tablespaces
- Recover a redo log group member
- Recover index tablespaces
- Recover read-only tablespaces
- Recreate the password file

## Exam #1Z0-043 Oracle Database 10g: Administration II (continued)

### Database Recovery

- Recover the control file
- Explain reasons for incomplete recovery
- Perform incomplete recovery using EM
- Perform incomplete recovery using RMAN
- Perform incomplete recovery using SQL
- Perform database recovery following a RESETLOGS operation

### Flashback Database

- Determine which flashback technology to use for each recovery situation
- Configure and sue Flashback Database
- Monitor the Flashback Database
- Use the Enterprise Manager Recovery Wizard to flashback database
- Manage (or maintain) the Flash Recovery Area

### Recovering from User Errors

- Recover a dropped table using Flashback technology
- Perform Flashback table operation
- Manage the recycle bin
- Recover from user errors using Flashback versions query
- Perform transaction level recovery using Flashback Transaction query

### Dealing with Database Corruption

- Define block corruption and list its causes and symptoms
- Detect database corruptions using the following utilities: ANALYZE DBVERIFY
- Detect database corruptions using the dbms\_repair package
- Implement the DB\_BLOCK\_CHECKING parameter to detect corruptions
- Repair corruptions using RMAN

### Automatic Database Management

- Use the Database Advisors to gather information about your database
- Use the SQL Tuning Advisor to improve database performance
- Use automatic undo retention tuning



## Exam #1Z0-043 Oracle Database 10g: Administration II (continued)

### Monitoring and Managing Storage

- Tune redo writing and archiving operations
- Issue statements that can be suspended upon encountering space condition errors
- Reduce space-related error conditions by proactively managing tablespace usage
- Reclaim wasted space from tables and indexes using the segment shrink functionality
- Estimate the size of new table and indexes
- Use different storage options to improve the performance of queries
- Rebuild indexes online

### Automatic Storage Management

- Set up initialization parameter files for ASM and database instances
- Execute SQL commands with ASM file names
- Start up and shut down ASM instances
- Administer ASM disk groups
- Use RMAN to migrate your database to ASM

### Monitoring and Managing Memory

- Implement Automatic Shared Memory Management
- Manually configure SGA parameters for various memory components in the SGA
- Use Automatic PGA Memory Management\

### Managing Resources

- Configure the Resource Manager
- Assign users to Resource Manager groups
- Create resource plans within groups
- Specify directives for allocating resources to consumer groups

### Automating Tasks with the Scheduler

- Simplify management tasks by using the Scheduler
- Create a job, program, schedule, and window
- Reuse Scheduler components for similar tasks
- View information about job executions and job instances



# Test Content Checklist

## *Oracle Database 10g: New Features for Administrators - Exam #1Z0-040*

### **Installation**

- Describe installation new features support
- Describe installation performance enhancements.

### **Server Configuration**

- Simplify instance configuration using a subset of initialization parameters
- Use policy-based database configuration framework
- View database usage statistics through EM

### **Load and Unload Data**

- Transport tablespaces across different platforms
- Explain Data Pump architecture
- Monitor a Data Pump job
- Use Data Pump export and import
- Create external tables for data population
- Define your external table properties

### **Automatic Management**

- Use Automatic Database Diagnostic Monitor
- Use Automatic Shared Memory Management
- Use Automatic Optimizer Statistics Collection
- Use Automatic Undo Retention Tuning

### **Manageability Infrastructure**

- Monitor and maintain the AWR
- Use the Active Session History (ASH)
- Monitor and manage server-generated alerts
- Explain the automated tasks feature
- Describe the advisory framework

### **Application Tuning**

- Use the new optimizer statistics
- Use the SQL Tuning Advisor
- Use the SQLAccess Advisor
- Use the performance pages of Database Control

## Exam #1Z0-040 Oracle Database 10g: New Features for Administrators™ (continued)

### System Resource Management

- Automatically switch a session back to the original consumer group at the end of the top call
- Set idle time-outs for consumer groups
- Create mappings for the automatic assignment of sessions to consumer groups

### Automating Tasks with the scheduler

- Simplify management tasks by using the Scheduler
- Create a job, program, schedule and window
- Reuse scheduler components for similar tasks
- View information about job executions and job instances

### Space Management

- Reduce space related error conditions through proactively managing tablespace usage
- Reclaim wasted space from tables and indexes using the segment shrink functionality
- Use the Segment Advisor
- Use the Undo Advisor
- Use sorted hash clusters

### Improved VLDB Support

- Create and maintain bigfile tablespaces
- Create temporary tablespace groups
- Assign temporary tablespace groups to users
- Skip unusable indexes
- Specify storage characteristics for index partitions in the table partition DML commands
- Create hash-partitioned global indexes
- Maintain hash-partitioned global indexes

## Exam #1Z0-040 Oracle Database 10g: New Features for Administrators™ (continued)

### Backup and Recovery Enhancements

- Simplify file management for all recovery-related files
- Reduce restore time by applying incremental backups to data file image copies
- Simplify recovery after opening the database with the RESETLOGS option
- Speed backup times by creating faster incremental backups
- Minimize load requirements by specifying limits in backup time windows
- Save storage space through writing compressed backup sets

### Flashback Any Error

- Configure and use Flashback Database
- Recover dropped tables with the Flashback Drop feature
- Retrieve row history information with the Flashback Versions Query feature
- Audit or recover FROM transactions with the Flashback Transaction Query feature
- Recover tables to a point in time with the Flashback Table feature

### General Storage Enhancement

- Create the SYSAUX tablespace
- Relocate SYSAUX occupants
- Rename tablespaces
- Create a default permanent tablespace
- Copy files using the Database Server
- Use the Redo Logfile Size Advisor

### Automatic Storage Management

- Describe Automatic Storage Management
- Set up initialization parameter files for ASM and database instances
- Execute SQL commands with ASM file names
- Start up and shut down ASM instances
- Administer ASM disk groups
- Use RMAN to migrate your database to ASM

### Maintain Software

- Understand the supported upgrade paths to Oracle Database 10g
- Use new utility to perform pre-upgrade validation checks
- Use simplified upgrade process that automatically determines components to be upgraded
- Start up the database using a new mode when upgrading

### Security

- Apply a column level VPD policy
- Apply static and non-static policies
- Share VPD policy functions
- Use the unified audit trails
- Use fine-grained auditing for DML statements

## Exam #1Z0-040 Oracle Database 10g: New Features for Administrators™ (continued)

### Miscellaneous New Features

- Provide greater flexibility by enabling resumable timeout at the instance level
- Use regular expression support in SQL and PL/SQL for string searching, matching and replacing
- Use additional linguistic comparison and sorting methods in SQL
- Use SQL to flush the buffer cache



# Test Content Checklist

## *Oracle® DBA New Features for Oracle7.3 and Oracle8 OCPs - Exam# 1Z0-035*

### **Using Partitioning: Conceptual Overview**

- Describe the general partitioning rules.

### **Implementing Partitioned Indexes**

- Describe the different types of partitioned indexes

### **Supporting Commands and Guidelines for Partitioned Tables and Indexes**

- Describe restrictions that apply to certain operations

### **Parallelizing INSERT, UPDATE, and DELETE Operations**

- Enable parallel DML for a session

### **Identifying New ROWID Structures**

- Describe the new ROWID format

### **Managing Large Objects**

- Differentiate between internal and external LOBs

### **Implementing Oracle Advanced Queuing**

- Define the advanced queuing concepts

### **Using Additional New Features**

- Implement reverse key indexes
- Create and use index-organized tables

### **Introduction to Recovery Manager**

- Discuss the benefits of using Recovery Manager

- Identify the types of backups

### **Enhancements to Networking**

- Describe the concept of multiplexing
- Describe the concept of connection pooling

### **Implementing Password Management**

- Implement password aging and expiry

### **Optimizer and Query Improvements**

- Describe the features of optimizer plan stability
- Explain Top-N SQL queries
- Explain automatic parallel execution

### **Summary Management**

- Build and manage materialized views for Oracle Summaries
- Build and manage dimensions

### **Indexes and Index-Organized Tables**

- Describe a function-based index

### **Partitioning Improvements**

- Implement range, hash, and composite partitioning
- Describe partition-wise join

## Exam #1Z0-035—Oracle9i DBA New Features for Oracle7.3 and Oracle8 OCPs (continued)

### LOBs

- Define LOBs from a DBA perspective

### Oracle Universal Installer: Migration and Upgrade

- Upgrade a database to Oracle9i

### Database Resource Manager

- Explain the features of the database resource manager

### Manageability Enhancements

- Relocate and reorganize tables
- Remove unused columns from a table
- Define temporary tables

### Availability and Recoverability Enhancements

- Implement duplex and multiple archive logs
- Describe the functionality of LogMiner
- Implement fast-start fault recovery
- Manage corrupt block detection and repair

### SQL\*Plus, PL/SQL, and National Language Support Enhancements

- Describe the use of PL/SQL for Event Triggers, Autonomous Transactions, and Native Dynamic SQL

### Database Security

- Implement fine-grained access control

### Oracle Server Security

- Explain the new privileged connection options
- Describe the new security features and their application: Secure Application Role, Global Context, Partitioned Fine-Grained Access Control, and Fine-Grained Auditing

### General High Availability Technology

- Describe fast-start time-based recovery limit
- Explain the new Oracle Flashback feature
- Describe Resumable Space Allocation
- Describe the new Export/Import features

### Oracle9i LogMiner Enhancements

- Explain LogMiner new features: DDL statement support, dictionary staleness detection, ability to use an online dictionary, and ability to skip log corruptions

### Backup and Recovery

- Describe new RMAN manageability features: New backup enhancements and new restore/recovery enhancements
- Describe new RMAN reliability features: Block media recovery (BMR) and Trial Recovery
- Describe other RMAN improvements

## Exam #1Z0-035—Oracle9i DBA New Features for Oracle7.3 and Oracle8 OCPs (continued)

### Oracle9i Data Guard

- Explain the Oracle9i Data Guard architecture
- Configure the physical Standby Database in no-data-loss mode
- Initiate a Database Switchover Operation

### Database Resource Manager Enhancements

- Automatically detect long-running operations
- Automatically limit resource consumption other than CPU and DOP

### Online Operations

- Explain online index rebuild new functionality
- Describe online table redefinitions
- Explain online analyze validate
- Describe the use of the Server Parameter File (SPFILE)

### Segment Management (Part I)

- Use the automatic global index maintenance feature
- Explain the use of external tables
- Use the new LIST partitioning method
- Explain the basics of metadata Application Programming Interface

### Segment Management (Part II)

- Explain and use the new Automatic Segment-Space Management functionality
- Create and use bitmap join indexes

### Performance Improvements

- Use the indexes monitoring feature
- Describe the cursor-sharing enhancements
- Identify cached execution plans
- Gather system statistics

### Real Application Clusters

- Explain cache fusion
- Configure a shared server-side initialization parameter file

### File Management

- Explain the concept and benefits of Oracle-Managed Files (OMF)
- Create and manage OMF files
- Use SQL syntax to remove associated OS files when removing a non-OMF tablespace from the database
- Create and alter default temporary tablespaces

### Tablespace Management

- Explain the concept of Automatic Undo Management
- Create and maintain UNDO tablespaces
- Create and properly use multiple block sizes within a database

### Memory Management

- Set parameters to enable automatic and dynamic sizing of SQL working areas
- Use new columns and views to gather information regarding SQL execution memory management
- Describe the allocation and tracking of memory behind a dynamic SGA



## Exam #1Z0-035—Oracle9i DBA New Features for Oracle7.3 and Oracle8 OCPs (continued)

### Enterprise Manager Enhancements

- Generate HTML Reports
- Create user-defined events

### SQL Enhancements

- Use ISO/ANSI-standard SQL syntax, such as Joins, CASE expressions, NULLIF, COALESCE, scalar subqueries, MERGE, and analytical functions
- Identify other SQL enhancements, such as constraint enhancements, FOR UPDATE WAIT
- Use the enhancements to LOBs and PL/SQL

### Globalization Support

- Describe the new date and time data types
- Describe the Unicode enhancements
- Use the Character Set Scanner

### Database Workspaces

- Version-enable a table
- Create and assign a workspace



# Test Content Checklist

## *Oracle Database 10g: New Features for Oracle8i OCPs - Exam# 1Z0-045*

### **Oracle Server Security**

- Explain the privileged connection options

### **General High Availability Technology**

- Explain the Oracle Flashback feature
- Describe Resumable Space Allocation

### **Oracle LogMiner Enhancements**

- Explain LogMiner new features: DDL statement support, dictionary staleness detections, ability to use an online dictionary, ability to skip log corruptions

### **Backup and Recovery**

- Describe new RMAN manageability features: backup enhancements, restore/recovery enhancements
- Describe new RMAN reliability features: Block media recovery (BMR), Trial Recovery
- Block media recovery (BMR), Trial Recovery

### **Database Resource Manager Enhancements**

- Automatically limit resource consumption other than CPU and DOP

### **Online Operations**

- Describe online table redefinitions
- Describe the use of the Server Parameter File (SPFILE)

### **Segment Management (Part II)**

- Explain and use the new Automatic Segment-Space Management functionality

### **Performance Improvements**

- Describe the cursor sharing enhancements

### **File Management**

- Create and manage OMF files

### **Tablespace Management**

- Create and maintain UNDO tablespaces

### **Memory Management**

- Set parameters to enable automatic and dynamic sizing of SQL working areas

## Exam# 1Z0-045—Oracle Database 10g: New Features for Oracle8i OCPs - (continued)

### Globalization Support

- Describe the Unicode enhancements
- Use the Character Set Scanner

### Installation

- Describe installation new features support
- Describe installation performance enhancements

### Server Configuration

- Simplify instance configuration using a subset of initialization parameters
- Use policy-based database configuration framework
- Use DBCA to clone database
- View database usage statistics through EM

### Load and Unload Data

- Transport tablespaces across different platforms
- Explain Data Pump architecture
- Monitor a Data Pump job
- Use Data Pump export and import
- Create external tables for data population
- Define your external table properties

### Automatic Management

- Use Automatic Database Diagnostic Monitor
- Use Automatic Shared Memory Management
- Use Automatic Optimizer Statistics Collection
- Use Automatic Undo Retention Tuning

### Manageability Infrastructure

- Monitor and maintain the AWR
- Use the Active Session History (ASH)
- Monitor and manage server-generated alerts
- Explain the automated tasks feature
- Describe the advisory framework

### Application Tuning

- Use the new optimizer statistics
- Use the SQL Tuning Advisor
- Use the SQLAccess Advisor
- Use the performance pages of Database Control

## Exam# 1Z0-045—Oracle Database 10g: New Features for Oracle8i OCPs - (continued)

### System Resource Management

- Automatically switch a session back to the original consumer group at the end of the top call
- Set idle time-outs for consumer groups
- Create mappings for the automatic assignment of sessions to consumer groups

### Automating Tasks with the Scheduler

- Simplify management tasks by using the Scheduler
- Create a job, program, schedule and window
- Reuse scheduler components for similar tasks
- View information about job executions and job instances

### Space Management

- Reduce space related error conditions through proactively managing tablespace usage
- Reclaim wasted space from tables and indexes using the segment shrink functionality
- Use sorted hash clusters
- Use the Segment Advisor

### Improved VLDB Support

- Create and maintain bigfile tablespaces
- Create temporary tablespace groups
- Assign temporary tablespace groups to users
- Skip unusable indexes
- Specify storage characteristics for index partitions in the table partition DML commands
- Create hash-partitioned global indexes
- Maintain hash-partitioned global indexes

### Backup and Recovery Enhancements

- Simplify file management for all recovery-related files
- Reduce restore time by applying incremental backups to data file image copies
- Simplify recovery after opening the database with the RESETLOGS option
- Speed backup times by creating faster incremental backups

## Exam# 1Z0-045—Oracle Database 10g: New Features for Oracle8i OCPs - (continued)

### Flashback Any Error

- Configure and use Flashback Database
- Recover dropped tables with the Flashback Drop feature
- Retrieve row history information with the Flashback Versions Query feature
- Audit or recover FROM transactions with the Flashback Transaction Query feature
- Recover tables to a point in time with the Flashback Table feature

### General Storage Enhancement

- Create the SYSAUX tablespace
- Relocate SYSAUX occupants
- Rename tablespaces
- Create a default permanent tablespace
- Copy files using the Database Server
- Use the Redo Logfile Size Advisor

### Automatic Storage Management

- Describe Automatic Storage Management
- Set up initialization parameter files for ASM and database instances
- Execute SQL commands with ASM file names
- Start up and shut down ASM instances
- Administer ASM disk groups
- Use RMAN to migrate your database to ASM

### Maintain Software

- Understand the supported upgrade paths to Oracle Database 10g
- Use new utility to perform pre-upgrade validation checks
- Use simplified upgrade process that automatically determines components to be upgraded
- Start up the database using a new mode when upgrading

### Miscellaneous New Features

- Provide greater flexibility by enabling resumable timeout at the instance level
- Use regular expression support in SQL and PL/SQL for string searching, matching and replacing
- Use additional linguistic comparison and sorting methods in SQL
- Use SQL to flush the buffer cache



# Test Content Checklist

## *Oracle9i: New Features for Administrators* *Exam# 1Z0-030*

### Oracle Server Security

- Explain the new privileged connection options
- Describe the new security features and their application: Secure Application Role, Global Context, Partitioned Fine-Grained Access Control, and Fine-Grained Auditing
- Describe the optional security products

### General High Availability Technology

- Explain new features designed to harden the database against unplanned down time
- Describe minimal I/O recovery
- Describe fast-start time-based recovery limit
- Explain the new Oracle Flashback feature
- Describe Resumable Space Allocation
- Describe the new Export/Import features

### Oracle9i LogMiner Enhancements

- Explain LogMiner new features: DDL statement support, dictionary staleness detection, ability to use an online dictionary, and ability to skip log corruptions
- Describe the LogMiner Viewer

### Backup and Recovery

- Describe the new RMAN manageability features: New backup enhancements and new restore/recovery enhancements
- Describe the new RMAN reliability features: Block media recovery (BMR) and Trial Recovery
- Describe other RMAN improvements

### Oracle9i Data Guard

- Explain the Oracle9i Data Guard architecture
- Configure the physical Standby Database in no-data-loss mode
- Initiate a Database Switchover operation
- Set up automatic archive gaps detection
- Launch managed recovery mode in the background
- Apply a delay to redo application on the standby site

### Database Resource Manager Enhancements

- Automatically detect long-running operations
- Automatically limit resource consumption other than CPU and DOP

## Exam #1Z0-030—Oracle9i: New Features for Administrators (continued)

### Online Operations

- Discuss the new features designed to reduce planned down time
- Explain online index rebuild new functionality
- Explain online functionality for index-organized tables (IOTs)
- Describe online table redefinitions
- Explain online analyze validate
- Describe the use of the Server Parameter File (SPFILE)

### Segment Management (Part I)

- Use the automatic global index maintenance feature
- Explain the use of external tables
- Use the new LIST partitioning method
- Explain the basics of metadata Application Programming Interface

### Segment Management (Part II)

- Explain and use the new Automatic Segment-Space Management functionality
- Create and use bitmap join indexes

### Performance Improvements

- Use the indexes monitoring feature
- Describe skip scan index access
- Describe the cursor-sharing enhancements
- Identify cached execution plans
- Use the new first rows optimization
- Gather system statistics

### Real Application Clusters

- Explain cache fusion
- Configure a shared server-side initialization parameter file

### File Management

- Explain the concept and benefits of Oracle-Managed Files (OMF)
- Create and manage OMF files
- Use SQL syntax to remove associated OS files when removing a non-OMF tablespace from the database
- Create and alter default temporary tablespaces

### Tablespace Management

- Explain the concept of Automatic Undo Management
- Create and maintain UNDO tablespaces
- Create and properly use multiple block sizes within a database

### Memory Management

- Set parameters to enable automatic and dynamic sizing of SQL working areas
- Use new columns and views to gather information regarding SQL execution memory management
- Describe the allocation and tracking of memory behind a dynamic SGA

## Exam #1Z0-030—Oracle9i: New Features for Administrators (continued)

### Enterprise Manager Enhancements

- Describe the new look and feel of the Console
- Use the Console in the standalone mode
- Explain the Enterprise Manager functionality that supports Oracle9i Database features
- Generate HTML reports
- Create user-defined events

### SQL Enhancements

- Use ISO/ANSI standard SQL syntax, such as Joins, CASE expressions, NULLIF, COALESCE, scalar subqueries, MERGE, and analytical functions
- Identify other SQL enhancements, such as constraint enhancements, FOR UPDATE WAIT
- Use the enhancements to LOBs and PL/SQL

### Globalization Support

- Describe the new date and time data types
- Describe the Unicode enhancements
- Describe the enhanced sorting functionality
- Use the Character Set Scanner
- Explain the new byte and character semantics
- Use the Locale Builder

### Database Workspaces

- Identify the Workspace Manager role
- Version-enable a table
- Disable workspace participation for a table
- Create and assign a workspace
- Explain Import and Export considerations





# Test Content Checklist

## *Oracle8i: New Features for Administrators* *Exam# 1Z0-020*

### Java in the Database

- Describe Oracle Java components
- Describe JServer installation
- Tune JServer

### Optimizer and Query Improvements

- Describe the features of optimizer plan stability
- Describe the contents of the DBMS\_STATS package
- Explain Top-N SQL queries
- Identify new SQL keywords for computing subtotals
- Identify new sort processing options
- Explain automatic parallel execution

### Summary Management

- Build and manage Materialized views for Oracle Summaries
- Build and manage Dimensions

### Index and Index-Organized Tables

- Describe bitmap indexes improvements
- Describe a function-based index
- Build an index online
- Compute index statistics
- Describe an index-organized table (IOT)
- Explain logical ROWIDs
- Create multiple indexes on an IOT
- Explain how to partition an IOT

### Partitioning Improvements

- Revise the general partitioning concepts
- Implement range, hash, and composite partitioning
- Explain ENABLE/DISABLE ROW MOVEMENT
- Explain the new partition pruning capabilities
- Describe partition-wise join
- Review partition maintenance operations

### LOBs

- Define LOBs from a DBA perspective

### Oracle Universal Installer: Migration and Upgrade

- List the features of Oracle Universal Installer
- Migrate an Oracle7 database to Oracle8i
- Upgrade an Oracle8 database to Oracle8i

### Tablespace Management

- Manage locally managed tablespaces
- Manage transportable tablespaces
- Use read-only tablespace enhancement

## Exam #1Z0-020—Oracle8i: New Features for Administrators (continued)

### Database Resource Manager

- List the features of the database resource manager
- Limit the use of resources by using the database resource manager
- Monitor long-running operations
- Define new constraints features
- Define new Export/Import features

### Availability and Recoverability Enhancements

- Learn RMAN new features
- Implement duplex and multiple archive logs
- Set up a standby database in sustained recovery mode
- Start up a database for read operations
- Suspend database I/Os

### Manageability Enhancements

- Identify database limits
- Relocate and reorganize tables
- Remove unused columns from a table
- Define temporary tables
- Identify SQL\*Loader enhancements

### Describe the functionality of LogMiner

- Implement fast-start fault recovery
- Manage corrupt block detection and repair
- Describe the new possibility of dynamically changing the number of free lists

### Features of Net8

- Describe the new service naming scheme
- Explain automatic registration
- Describe load balancing
- Configure the network for JServer

### SQL\*Plus, PL/SQL, and National Language Support Enhancements

- Use SQL\*Plus for database management
- Describe the use of PL/SQL for Event Triggers, Autonomous Transactions, and Native Dynamic SQL

### Database Security

- Describe N-Tier authentication
- Describe invoker's rights security management
- Implement application context areas
- Implement fine-grained access control



# Test Content Checklist

## *Oracle8: New Features for Administrators* *Exam# 1Z0-010*

### **Using Partitioning: Conceptual Overview**

- Describe the benefits of partitioning
- Describe the general partitioning rules
- Describe the general partition restrictions

### **Implementing Partitioned Indexes**

- Describe the different types of partitioned indexes
- Plan an indexing strategy to support your applications
- Describe general partition restrictions

### **Supporting Commands and Guidelines for Partitioned Tables and Indexes**

- Explain the various commands to support partition management
- Describe restrictions that apply to certain operations
- Describe data dictionary tables that provide information on partitions

### **Parallelizing INSERT, UPDATE, and DELETE Operations**

- Describe the advantages of parallel data manipulation language (DML)
- Use hints and the parallel clause to set the degree of parallelism for a DML statement
- Execute parallel UPDATE and DELETE operations on partitioned tables
- Use the data dictionary views associated with parallel DML operations

### **Identifying New ROWID Structure**

- Describe the new ROWID format in Oracle8
- Use the new ROWID format in Oracle8

### **Using the DBMS\_ROWID Package**

### **Defining Object Relational Features**

- Define an object relational database
- Describe the object concepts in Oracle8
- Create a basic object type
- Create and use an object view

### **Managing Large Objects**

- Compare and contrast LONG and large object (LOB) data types
- Create and maintain LOB data types
- Differentiate between internal and external LOBs
- Utilize the DBMS\_LOB PL/SQL package

### **Implementing Oracle Advanced Queuing**

- Define the advanced queuing concepts
- Create and send messages using the ENQUEUE procedure
- Administer the queues and queue tables

## Exam #1Z0-010—Oracle8: New Features for Administrators (continued)

### Using Additional New Features

- Implement new types of constraint checking and enforcement
- Implement reverse key indexes
- Describe index-organized tables
- Create and use index-organized tables
- Identify the new security enhancements
- Configure a large pool System Global Area (SGA) area
- Take advantage of National Language Support (NLS) enhancements
- Use external procedures
- Describe the Oracle8 raised size ceilings

### Introduction to Recovery Manager

- Describe the Recovery Manager architecture
- Discuss the benefits of using Recovery Manager
- Identify the types of backups
- Describe the use of the Recovery Manager Catalog
- List associated data dictionary views

### Using Catalog Commands and Reports in Recovery Manager

- Maintain the contents of the recovery catalog
- Generate reports and lists from the recovery catalog
- Create and execute scripts to perform backup and recovery operations

### Using RUN Commands and Scripts in Recovery Manager

- Manage backup, copy, restore, and recovery operations using the Recovery Manager
- Create and execute scripts to perform backup and recovery operations

### Enhancements to Networking

- Describe the concept of multiplexing
- Describe the concept of connection pooling
- Describe the new features of naming services
- Describe the connectivity features
- Describe the security features
- Describe the performance benefits
- Describe the possibilities of configuration and administration

### Implementing Password Management

- Implement account locking
- Implement password aging and expiry
- Implement password complexity verification

### Migrating Server and Applications

- Explain the Migration Utility
- Explain the steps to complete a migration to Oracle8
- Explain the migration options

# Oracle Database 10g Certified Master Exam

## Server Configuration

- Create the database
- Determine and set sizing parameters for database structures
- Create and manage temporary, permanent, and undo tablespaces
- Stripe data files across multiple physical devices and locations
- Configure the database environment to support optimal data access performance
- Create and manage database configuration files
- Create and manage bigfile tablespaces
- Create and manage multiple network configuration files
- Create and configure a listener
- Configure the database instance to support shared server connections
- Set up network tracing
- Manage Oracle network processes (the Listener Control utility)
- Configure the network environment to allow connections to multiple databases
- Use configurationless connections

## Managing Database Availability

- Create a recovery catalog database
- Configure Recovery Manager
- Use Recovery Manager to perform database backups
- Use Recover Manager to perform complete database restore and recovery operations
- Set Flashback Database parameters

- Monitor Flashback Database logs and statistics
- Perform a Flashback Database operation
- Configure a flash recovery area

## Performance Management

- Install Statspack
- Adjust the default interval for statistics collection
- Customize the events that are monitored
- Use ADDM to analyze statistics and to identify performance bottlenecks and fix them
- Implement automatic shared memory management
- Tune memory using manual memory management
- Monitor and tune SGA areas that are not automatically tuned
- Implement automatic SQL execution memory management
- Tune the PGA using work area size parameters
- Use the PGA Advisor
- Create a Database Resource Manager plan with directives (active session count, max execution time)
- Create consumer groups
- Configure consumer group mappings
- Manage Services (Oracle Database 10g Release 2)
- Create and manage objects to accommodate different data access methods (schema tuning)
- Use the SQL Tuning Advisor

## Oracle Database 10g Certified Master Exam (continued)

- Use the SQL Access Advisor
- Gather Optimizer statistics
- Interpret execution plan
- Use SQL tuning tools and features

### Data Management

- Implement fine-grained auditing
- Create a secure application role
- Grant specific privileges for a Flashback Query
- Set parameters for retaining undo
- Implement fine-grained access control
- Create and manage contexts
- Use SQL\*Loader
- Implement transportable tablespaces between homogeneous and heterogeneous systems (using different methods of moving files)
- Choose the appropriate partition method (range, hash, list, and composite)
- Choose the appropriate partition key
- Choose appropriate indexing methods (local, global, prefixed, and nonprefixed)
- Perform partition maintenance operations
- Maintain indexes on a partitioned table
- Create and manage LOB segments
- Apply parallelism appropriately
- Tune memory for parallel operations
- Set parallel parameters

### Enterprise Manager Grid Control

- Install the Enterprise Manager Grid Control software

- Configure the Enterprise Manager repository
- Create Enterprise Manager Grid Control users
- Use Enterprise Manager to modify a database configuration
- Configure Enterprise Manager to modify a database availability
- Create and manage jobs
- Create and monitor alerts
- Create notifications
- Implement Grid Control and Database Control
- Choose the appropriate tablespace type for the intended use
- Create Scheduler jobs
- Create schedules
- Assign jobs to windows
- Create programs
- Create job classes
- Install the Enterprise Manager Grid Control infrastructure
- Deploy Enterprise Manager Grid Control agents
- Configure Grid Control for business requirements

### Data Warehouse Management

- Create external tables (Data Loader and Data Pump drivers)
- Implement Data Pump export and import jobs for data transfer
- Implement Data Pump to and from remote databases
- Implement Replication/Streams

## Oracle Database 10g Certified Master Exam (continued)

- Configure and manage master replication
- Configure and manage distributed materialized views
- Configure and manage Streams for replication

### Real Application Clusters

- Install Cluster Ready Services
- Install the Oracle Database 10g software
- Implement ASM failure groups
- Create and manage as ASM instance
- Create and manage ASM disk groups
- Configure ASM for the shared disks, and create a clustered database
- Configure archiving
- Configure Services with a primary instance and an available instance

### Data Guard

- Use Data Guard Manager and DGMGRL
- Create and utilize a physical standby database
- Create and utilize a logical standby database
- Set up log transport services for various levels of protection
- Configure the network environment to allow communication between the standby database and the primary database
- Open the physical standby database in a “ready-only” state
- Perform a switchover operation and a failover operation
- Implement Data Guard



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