Oracle® Certification Program Candidate Guide

Oracle Certified Professional Internet Application Developer, Oracle Forms Developer Rel. 6/6i

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ORACLE | CERTIFIED PROFESSIONAL

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Oracle Certification Program Candidate Guide

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Visit the OCP Web site at http://www.oracle.com/education/certification/

1 The Benefits of Oracle Certification

The demand for professionals in information technology (IT) is high, and the competition for jobs is intense. 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 pay.

"Oracle is the #1 skill sought by IT managers, and is the hardest to find." [1]

Benefits to the Technical Professional

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

By earning your OCA designation you can gain increased entry level job opportunities. The OCA is the stepping stone to starting a success-filled career as an Oracle Professional.

Beyond 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 that level of demand continues to grow with each new installation of Oracle technologies around the world. OCP certification raises your visibility and increases your access to the industry's most challenging opportunities.

The Oracle Certification Programs can give you a distinct advantage. OCPs have testified to the value of Oracle Certification[2] :

- 97% said they have benefited from certification
- 89% said they gained more confidence in their Oracle expertise after becoming certified
- 96% would recommend the program to a professional colleague

The true value of earning an OCP credential is increased opportunity. With more opportunity comes career growth and higher pay. Oracle Certifications have consistently delivered the best value for the investment made by IT professionals.

"Oracle's predominant OCP certification showed 28 percent more money than the average certification program measured." [3]

Benefits to the IT Employer

The Oracle Certification Programs are also valuable to hiring managers who want to distinguish among candidates for critical IT positions. For companies that send employees through annual IT training, certification ensures 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 has a direct impact on a company's success, as these conclusions from research by International Data Corporation [4] suggest:

- Certified professionals handled 40% more support calls, and their employers have reported 49% less system downtime.
- For the majority of companies surveyed, the savings from increased effectiveness paid the costs of certification in fewer than nine months..

1 Source: Information Week Magazine
2 Source: "Highlights From The Oracle Certified Professional Benefit Survey," Market Analysis and Research Strategies.
3 Source: "Certification Salary Survey", Certification Magazine, December, 2000
4 Source: "Benefits and Productivity Gains Realized Through IT Certification," International Data Corporatio n

2 *Internet Application Developer Track: Oracle Forms Developer Release 6/6i*

Oracle Certified Internet Application Developer Track Overview

Whether you're new to Oracle or upgrading from Oracle Developer Release 1, the Oracle Certified Professional (OCP) Program can help you reinforce your knowledge of leading-edge technology with a tangible industry-recognized credential.

Release 6/6*i* of Oracle Forms Developer—Oracle's premier development toolset—gives application developers access to significant advances in scalability and compatibility, as well as the ability to effectively leverage the strengths of both client/server technology and the Web. Your knowledge of this leading-edge technology can make you a hot commodity in a fast-paced IT marketplace.

Four paths to Oracle Internet Application Developer Certification

The Internet Application Developer Track offers four paths to become certified. Candidates can combine certain exams from any OCP Application Developer track, subject to restrictions (see below). See the chart on the following page for a list of the exams that are accepted under each path.

Internet Application Developer Rel. 6/6*i* Core Path (4 Exams):
New OCP candidates can take the core exams exclusively from the Rel. 6/6*i* track.

Internet Application Developer Rel. 6/6*i* Mixed Release Path (4 Exams):
New OCP candidates can take the first Forms exam from either Application Developer track, but must take the advanced Forms exam for Rel. 6/6*i* (exam 1Z0-132 Build Internet Applications II).

Internet Application Developer Rel. 6/6*i* Upgrade from Rel. 2 (no exam required):
Effective November 2000, all successful Rel. 2 Application Developer candidates will be automatically upgraded to Oracle Certified Internet Application Developer Rel. 6/6*i* when they complete the Rel. 2 track requirements.

Internet Application Developer Rel. 6/6*i* Upgrade from Rel. 1 (1 exam):
Candidates certified on Oracle Developer Rel. 1 can take exam 1Z0-130 Oracle Forms Rel. 1 to Rel. 6/6*i* New Features to upgrade their certification.

Apply Your Knowledge

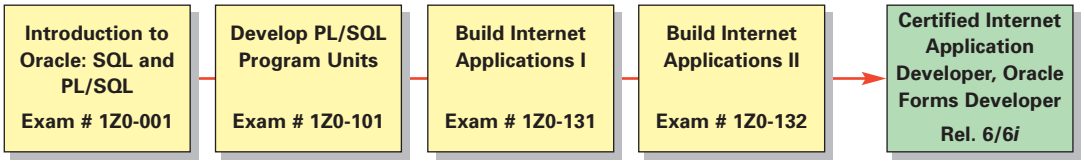
The tests required for each of these paths will challenge you to apply specific knowledge you've gained through Oracle training, as well as experience you've developed on the job, to real-world scenarios. Only proven performers will be able to pass the tests.

Candidate Qualifications

The typical candidate to take the Oracle Certified Internet Application Developer Track tests is an application developer who has completed up-to-date training on Oracle Forms Developer Release 6/6*i* and has at least six months of on-the-job experience.

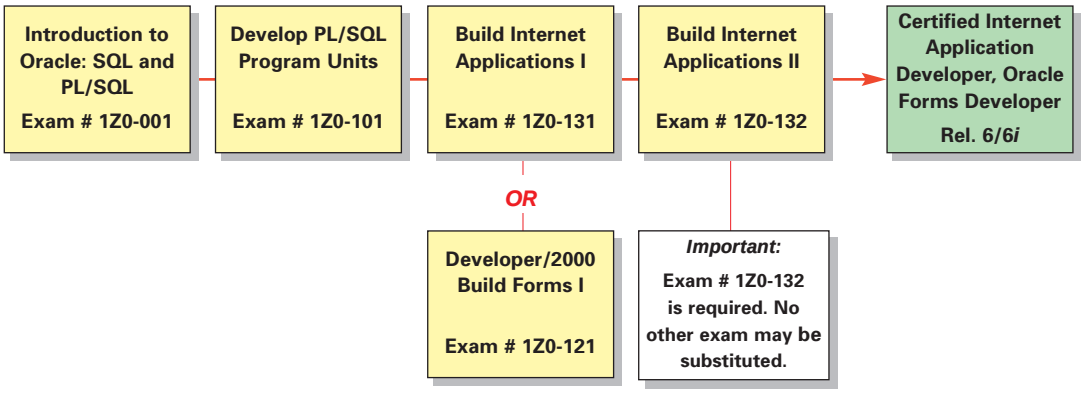
Internet Application Developer, Release 6/6*i* Core Path

Pass the following exams (in any order):

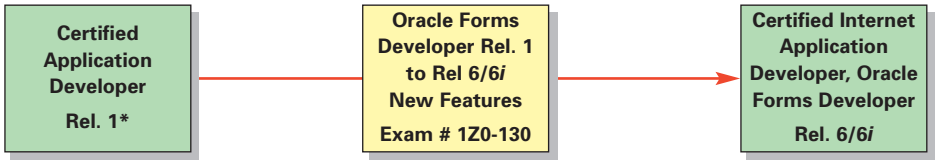


Internet Application Developer, Release 6/6*i* Mixed Release Path

Pass the following exams (in any order):



Internet Application Developer, Release 6/6i Upgrade Path for Release 1 OCP's



* Release 2 Certified Application Developers will be automatically upgraded to Release 6/6*i* certification. No additional exam is required.

3 *Preparing for the Oracle Forms Developer Release 6/6i Tests*

Oracle recommends that you prepare for the Oracle Forms Developer Release 6/6*i* exams by combining offerings from Oracle University with practice and on-the-job 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.

Oracle University Preparation Tools

Instructor-led training and *technology-based training* offered by Oracle University are the best way to prepare to become an Oracle Certified Professional. These courses lay the foundation of knowledge you will need to pass the OCP tests.

Refer to the curriculum map on the following page to chart your optimal preparation based on Oracle University instructor-led training and technology-based training. Your local Oracle University representative can advise you on the best option. For more information, visit the Oracle University Web site at http://education.oracle.com/.

Preparing On Your Own

Experience is the best way to deepen your understanding of the topics covered in Oracle University courses. Oracle recommends that you extend your classroom learning by applying your new skills and knowledge either on the job or through practice and self-study.

Test Content Checklist

Use the Test Content Checklist to identify all of the test topics for which you must prepare. Oracle may make modifications to the Test Content Checklist, so visit the OCP Web site at http://www.oracle.com/education/certification/ to download the latest version of this guide.

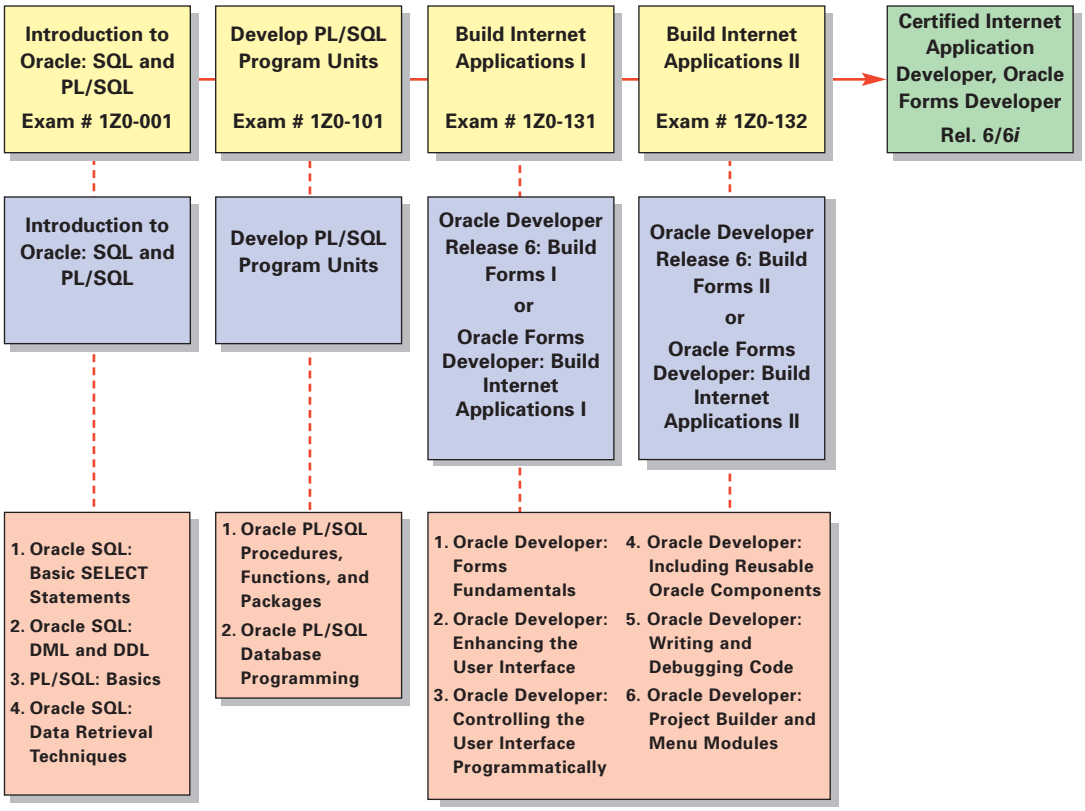
Additional Preparation Tools

- Practice Tests

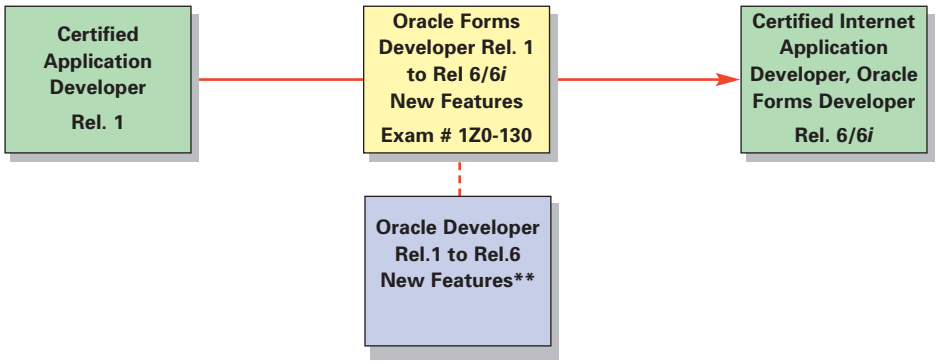
  Oracle and Self Test Software have partnered to develop the highest quality practice tests available to individuals seeking Oracle Certified Professional status. To purchase practice tests, visit the OCP web site at http://www.oracle.com/education/certification/.

Internet Application Developer Track for Oracle Forms Developer Release 6/6*i*

Oracle University Instructor-Led Training and Technology-Based Training titles are shown below:



Oracle Forms Developer Release 6/6*i* Upgrade Path for Certified Application Developers Release 1



= OCP Exam
= Instructor-Led Training
= Technology-Based Training

**Course covers both Forms and Reports material. Only Forms material is required for exam preparation.

4 *Registering for Your Tests*

The Oracle Certification tests are offered through Prometric, the world's largest provider of testing to the information technology industry. Prometric features more than 800 authorized Prometric testing centers worldwide.

All tests are delivered by computer. . A brief tutorial precedes each test to familiarize you with the test delivery system. You should attempt to answer every question in the tests because incomplete answers are scored as incorrect.

Reviewing the Candidate Agreement

Candidates pursuing Oracle Certification must accept the terms of the Oracle Certified Professional Candidate Agreement before taking the tests.

You will be presented with the agreement on-screen before the exam starts. You can also review the agreement before your appointment by visiting the OCP Web site at www.oracle.com/education/certification/canagreemt.html.

Scheduling Your Test at an Authorized Prometric Testing Center

1. There are two convenient ways to register for testing:
   a. Register online at http://www.oracle.com/education/certification. (Online registration is not available for beta exam registration.)
   b. 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 test that you are registering for. The Prometric customer service representative will ask for your name and contact information, as well as your preference as to date, time, and location for testing. Schedule your appointment to take the test at any available time Monday through Saturday during normal authorized Prometric testing center hours. Hours vary by location. Be sure to note when and where you are scheduled to take the test.
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 test. 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 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.
5. You must schedule a test at least 24 hours in advance.

Changing or Canceling Your Appointment

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*

On Test Day...

1. Arrive at the testing center 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, 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 30 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 make use of 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 necessary for you to gain more knowledge. Otherwise, if you only require skillset review in a few areas, we recommend you consult the Oracle Learning Network, where you will find each topic area available as a short course module. Most modules are only 45 minutes. Visit OLN at www.oracle.com/education/oln/.

6 *After You Are Certified*

Receiving Your Oracle Certification Welcome Kit

You will receive a certificate by mail from Prometric within 30 days after successfully completing all tests in a certification track. You can use your certificate as verification that you are an Oracle Certified Professional.

If you do not receive your certificate, write to fulfillment@prometric.com and provide your name, candidate ID, and current mailing address.

OCP Members Web Site

In addition, you will receive information on how to obtain a copy of the OCP logo. The logo may be used on business cards and resumes. You will also receive a letter of congratulations from Oracle which will indicate how you can begin to access the wealth of OCP benefits that await you. This will include the access login and password you will need to enter the OCP member online community.

Keeping Current with New Oracle Technology Releases

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.

Updating your Demographic Information

Visit the Prometric web site at http://2test.com to update your demographic information.

Follow the steps below:

1. Select "Information Technology Certification" from the drop down menu and click "GO"
2. Log in to the site with your User Name and Password. If you have never registered online before, select the link to set up your online account.
3. In the left navigation bar under "Testing with Prometric", select "Update User Profile".
4. You may update your mailing address, telephone numbers and your email address.
5. Select "Next". Your OCP Candidate information is now updated.

7 *Special Testing Opportunities*

Special Opportunities: Beta and Tryout Tests

Oracle may offer beta or tryout versions of OCP tests as new and updated questions are developed. Beta and tryout tests are generally offered free or at a discount from the regular test price. Participating in beta and tryout tests 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 OCP Web site at http://www.oracle.com/education/certification/ to find beta and tryout opportunities. Oracle provides detailed descriptions of each beta and tryout offer to help you decide if the tests are right for you.

Visit the OCP 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

Introduction to Oracle: SQL® and PL/SQL™
Exam# 1Z0-001

Overview of Relational Databases, SQL and PL/SQL

- ☐ Discuss the theoretical and physical aspects of a relational database
- ☐ Describe the Oracle implementation of the RDBMS and ORDBMS
- ☐ Describe the use and benefits of PL/SQL

Writing Basic SQL Statements

- ☐ List the capabilities of SQL SELECT statements
- ☐ Execute a basic SELECT statement
- ☐ Differentiate between SQL statements and SQL*Plus commands

Restricting and Sorting Data

- ☐ Limit the rows retrieved by a query
- ☐ Sort the rows retrieved by a query

Single Row Functions

- ☐ Describe various types of functions available in SQL
- ☐ Use character, number, and date functions in SELECT statements
- ☐ Describe the use of conversion functions

Displaying Data from Multiple Tables

- ☐ Write SELECT statements to access data from more than one table using equality and nonequality joins
- ☐ View data that generally does not meet a join condition by using outer joins
- ☐ Join a table to itself

Aggregating Data Using Group Functions

- ☐ Identify the available group functions
- ☐ Describe the use of group functions
- ☐ Group data using the GROUP BY clause
- ☐ Include or exclude grouped rows by using the HAVING clause

Subqueries

- ☐ Describe the types of problems that subqueries can solve
- ☐ Define subqueries
- ☐ List the types of subqueries
- ☐ Write single-row and multiple-row subqueries

Multiple-Column Subqueries

- ☐ Write multiple-column subqueries
- ☐ Describe and explain the behavior of subqueries when null values are retrieved
- ☐ Write subqueries in a FROM clause

Producing Readable Output with SQL*Plus

- ☐ Produce queries that require an input variable
- ☐ Customize the SQL*Plus environment
- ☐ Produce more readable output
- ☐ Create and execute script files
- ☐ Save customizations

Manipulating Data

- ☐ Describe each DML statement
- ☐ Insert rows into a table
- ☐ Update rows in a table
- ☐ Delete rows from a table
- ☐ Control transactions

Creating and Managing Tables

- ☐ Describe the main database objects
- ☐ Create tables
- ☐ Describe the datatypes that can be used when specifying column definition
- ☐ Alter table definitions
- ☐ Drop, rename, and truncate tables

Including Constraints

- ☐ Describe constraints
- ☐ Create and maintain constraints

Creating Views

- ☐ Describe a view
- ☐ Create a view
- ☐ Retrieve data through a view
- ☐ Insert, update, and delete data through a view
- ☐ Drop a view

Exam #1Z0-001 – Introduction to Oracle: SQL and PL/SQL, continued

Oracle Data Dictionary

- ☐ Describe the data dictionary views a user may access
- ☐ Query data from the data dictionary

Other Database Objects

- ☐ Describe database objects and their uses
- ☐ Create, maintain, and use sequences
- ☐ Create and maintain indexes
- ☐ Create private and public synonyms

Controlling User Access

- ☐ Create users
- ☐ Create roles to ease setup and maintenance of the security model
- ☐ Use the GRANT and REVOKE statements to grant and revoke object privileges

Declaring Variables

- ☐ List the benefits of PL/SQL
- ☐ Describe the basic PL/SQL block and its sections
- ☐ Describe the significance of variables in PL/SQL
- ☐ Declare PL/SQL variables
- ☐ Execute a PL/SQL block

Writing Executable Statements

- ☐ Describe the significance of the executable section
- ☐ Write statements in the executable section
- ☐ Describe the rules of nested blocks
- ☐ Execute and test a PL/SQL block
- ☐ Use coding conventions

Interacting with the Oracle Server

- ☐ Write a successful SELECT statement in PL/SQL
- ☐ Declare the datatype and size of a PL/SQL variable dynamically
- ☐ Write DML statements in PL/SQL
- ☐ Control transactions in PL/SQL
- ☐ Determine the outcome of SQL DML statements

Writing Control Structures

- ☐ Identify the uses and types of control structures
- ☐ Construct an IF statement
- ☐ Construct and identify different loop statements
- ☐ Use logic tables
- ☐ Control block flow using nested loops and labels

Working with Composite Datatypes

- ☐ Create user-defined PL/SQL records
- ☐ Create a record with the %ROWTYPE attribute
- ☐ Create a PL/SQL table
- ☐ Create a PL/SQL table of records
- ☐ Describe the difference between records, tables, and tables of records

Writing Explicit Cursors

- ☐ Distinguish between an implicit and an explicit cursor
- ☐ Use a PL/SQL record variable
- ☐ Write a cursor FOR loop

Advanced Explicit Cursor Concepts

- ☐ Write a cursor that uses parameters
- ☐ Determine when a FOR UPDATE clause in a cursor is required
- ☐ Determine when to use the WHERE CURRENT OF clause
- ☐ Write a cursor that uses a subquery

Handling Exceptions

- ☐ Define PL/SQL exceptions
- ☐ Recognize unhandled exceptions
- ☐ List and use different types of PL/SQL exception handlers
- ☐ Trap unanticipated errors
- ☐ Describe the effect of exception propagation in nested blocks
- ☐ Customize PL/SQL exception messages

Test Content Checklist

Develop PL/SQL Program Units
Exam# 1Z0-101

Creating Procedures

- ☐ Describe the uses of procedures
- ☐ Create client-side and server-side procedures
- ☐ Create procedures with parameters
- ☐ Declare subprograms
- ☐ Invoke a procedure
- ☐ Remove a procedure

Creating Functions

- ☐ Describe the uses of functions
- ☐ Create client-side and server-side functions
- ☐ Invoke a function
- ☐ Remove a function
- ☐ Differentiate between a procedure and a function

Creating Packages

- ☐ Describe packages and list their possible components
- ☐ Create a package to group together related variables, cursors, constants, exceptions, procedures, and functions
- ☐ Make a package construct either public or private
- ☐ Invoke a package construct

More Package Concepts

- ☐ Write packages that use the overloading feature
- ☐ Avoid errors with mutually referential subprograms
- ☐ Initialize variables with a one-time-only procedure
- ☐ Describe the purity of a function
- ☐ Describe persistent states

Oracle Supplied Packages

- ☐ Describe the use and application of some Oracle Server supplied packages: DBMS_PIPE, DBMS_DDL, DBMS_JOB, DBMS_OUTPUT
- ☐ Write dynamic SQL using DBMS_SQL

Creating Database Triggers

- ☐ Describe database triggers and their use
- ☐ Create database triggers
- ☐ Describe database trigger firing rules
- ☐ Remove database triggers

More Trigger Concepts

- ☐ Explain the rules governing triggers
- ☐ Implement triggers

Managing Subprograms and Triggers

- ☐ Describe system privilege requirements
- ☐ Describe object privilege requirements
- ☐ Managing stored objects using the data dictionary
- ☐ Debug subprograms

Managing Dependencies

- ☐ Track procedural dependencies
- ☐ Predict the effect of changing a database object upon stored procedures and functions
- ☐ Manage procedural dependencies

Test Content Checklist

Build Internet Applications I
Exam# 1Z0-131

Running a Forms Developer Application

- ☐ Describe the runtime environment
- ☐ Navigate a Forms Developer application
- ☐ Describe the two modes of operation
- ☐ Retrieve both restricted and unrestricted data from the database into a Forms Developer application
- ☐ Insert, update, and delete records
- ☐ Display database errors

Working with the Forms Developer Environment

- ☐ Identify the main Forms Developer executables
- ☐ Identify the main components of Forms Developer
- ☐ Identify the main objects in a form module

Creating a Basic Form Module

- ☐ Create a form module
- ☐ Create a data block
- ☐ Modify a data block using the Data Block Wizard
- ☐ Modify a layout using the layout wizard
- ☐ Save, compile, and run a form module
- ☐ Identify file formats and their characteristics
- ☐ Create data blocks with relationships
- ☐ Run a master-detail form module

Working with Data Blocks and Frames

- ☐ Identify the components of the Property Palette
- ☐ Manipulate properties through the Property Palette
- ☐ Control the behavior and appearance of data blocks
- ☐ Control frame properties
- ☐ Create blocks that do not directly correspond to the database
- ☐ Delete data blocks and their components

Working with Text Items

- ☐ Describe text items
- ☐ Create a text item
- ☐ Modify the appearance of a text item
- ☐ Control the data in a text item
- ☐ Modify the navigational behavior of a text item
- ☐ Enhance the relationship between the text item and the database
- ☐ Modify the functionality of a text item
- ☐ Include Help messages

Creating LOVs and Editors

- ☐ Describe LOVs and editors
- ☐ Design, create, and associate LOVs with text items in a form module
- ☐ Create editors and associate them with text items in a form module

Creating Additional Input Items

- ☐ Identify the item types that allow input
- ☐ Create a check box
- ☐ Create a list item
- ☐ Create a radio group

Creating Non-Input Items

- ☐ Identify item types that do not allow input
- ☐ Create a display item
- ☐ Create an image item
- ☐ Create a sound item
- ☐ Create a button
- ☐ Create a calculated field
- ☐ Create a hierarchical tree item

Creating Windows and Content Canvases

- ☐ Describe windows and content canvases
- ☐ Describe the relationship between windows and content canvases
- ☐ Identify window and content canvases properties
- ☐ Display a form module in multiple windows
- ☐ Display a form module on multiple layouts

Working with Other Canvases

- ☐ Describe the different types of canvases and their relationships to each other

Exam #1Z0-131 – Build Internet Applications I, continued

- ☐ Identify the appropriate canvas type for different scenarios
- ☐ Create an overlay effect using the stacked canvases
- ☐ Create a toolbar
- ☐ Create a tabbed interface

Introduction to Triggers

- ☐ Define triggers
- ☐ Identify the different trigger categories
- ☐ Plan the type and scope of triggers in a form
- ☐ Describe the properties that affect the behavior of a trigger

Producing Triggers

- ☐ Write trigger code
- ☐ Explain the use of built-in subprograms in Oracle Forms Developer applications
- ☐ Describe the When-Button-Pressed trigger
- ☐ Describe the When-Window-Closed trigger

Debugging Triggers

- ☐ Describe the components of the Debugger
- ☐ Run a form module in debug mode
- ☐ Debug PL/SQL code

Adding Functionality to Items

- ☐ Supplement the functionality of input items by using triggers and built-ins
- ☐ Supplement the functionality of non-input items by using triggers and built-ins

Runform Messages and Alerts

- ☐ Describe the default messaging
- ☐ Handle errors using built-in subprograms
- ☐ Identify the different types of Forms Developer messages
- ☐ Control system messages
- ☐ Create and control Alerts

Query Triggers

- ☐ Explain the process involved in querying a data block
- ☐ Describe query triggers and their scope
- ☐ Write triggers to supplement query results and screen query conditions
- ☐ Control trigger action based on the form query status

Validation

- ☐ Explain the effects of the validation unit upon a form
- ☐ List Forms Developer validation properties
- ☐ Control validation using triggers

Navigation

- ☐ Distinguish between internal and external navigation
- ☐ Describe and use the navigation triggers
- ☐ Identify built-ins that cause navigation

Transaction Processing

- ☐ Describe the details of commit processing and commit triggers
- ☐ Supplement transaction processing using triggers
- ☐ Allocate sequence numbers to records as they are applied to tables
- ☐ Implement Array DML

Writing Flexible Code

- ☐ Describe flexible code
- ☐ State the advantages of using system variables
- ☐ Identify built-in subprograms that assist flexible coding
- ☐ Write code to reference objects by internal ID
- ☐ Write code to reference objects indirectly

Sharing Objects and Code

- ☐ Describe the various methods for reusing objects and code
- ☐ Inherit properties from property classes
- ☐ Group related objects for reuse
- ☐ Reuse objects from an object library
- ☐ Reuse PL/SQL code

Introducing Multiple Form Applications

- ☐ Call one form from another form module
- ☐ Define multiple form functionality

Test Content Checklist

Build Internet Applications II
Exam# 1Z0-132

Creating a Menu Module

- ☐ Identify the components of a menu
- ☐ Create, save, and attach menu modules
- ☐ Set menu properties using the Property Palette
- ☐ Create menu toolbars
- ☐ Create pop-up menus

Managing Menu Modules

- ☐ Control the menu programmatically using menu built-ins
- ☐ Implement menu security using both database roles and the appropriate built-ins

Programming Function Keys

- ☐ Define key triggers and their uses
- ☐ Program function keys
- ☐ Describe the characteristics of key triggers
- ☐ Classify key triggers
- ☐ Associate function keys with interface controls

Responding to Mouse Events

- ☐ Describe mouse events
- ☐ Cause a form module to respond to mouse movement
- ☐ Cause a form module to respond to mouse button actions

Controlling Windows and Canvases Programmatically

- ☐ Display a form document in multiple windows
- ☐ Write code to interact with windows
- ☐ Manipulate windows programmatically
- ☐ Manipulate canvas-views programmatically
- ☐ Use large data blocks

Defining Data Sources

- ☐ Describe the various data source types
- ☐ Base a data block on a FROM clause query
- ☐ Describe the advantages of using a FROM clause query
- ☐ Base a data block on a stored procedure
- ☐ Return a REF cursor from a stored procedure
- ☐ Return a table of records from a stored procedure
- ☐ Select the appropriate data source for a data block

Working with Oracle8 Objects in Forms Developer

- ☐ Recognize which object types are supported
- ☐ Describe how object types are represented within Oracle Forms Developer
- ☐ Create a block based on an object table
- ☐ Create a block based on a relation table with an object or a REF column
- ☐ Populate a REF column with an LOV

Controlling Data Block Relationships

- ☐ Define block coordination
- ☐ Coordinate data blocks by using REF relations
- ☐ Describe the characteristics and principles of relation-handling code
- ☐ Implement a coordination-type toggle
- ☐ Force one commit per master record

Building Multiple Form Applications

- ☐ Describe the different ways of invoking additional forms
- ☐ Open, call, and close forms
- ☐ Navigate between forms
- ☐ Control opened forms and called forms
- ☐ Manage transaction processing for opened forms and called forms
- ☐ Choose the most appropriate method for invoking forms
- ☐ Pass form parameters

Exam #1Z0-132 – Build Internet Applications II, continued

Working with Record Groups

- ☐ Describe the record group object
- ☐ Use record groups
- ☐ Define record groups at design time
- ☐ Control record groups by using built-in functions
- ☐ Define query record groups programmatically
- ☐ Define nonquery record groups programmatically
- ☐ Manipulate record group rows
- ☐ Define lists of values (LOVs) programmatically
- ☐ Manipulate list items programmatically
- ☐ Implement dynamic list items
- ☐ Add values to combo boxes

Including Charts and Reports

- ☐ Include charts in an application
- ☐ Include reports in an application

Applying Timers

- ☐ Describe timers
- ☐ Create a timer
- ☐ Modify a timer
- ☐ Delete a timer
- ☐ Handle timer expiration

Using Server Features in Forms Developer

- ☐ Use Oracle server functionalities in forms
- ☐ Deal with server-side PL/SQL
- ☐ Recognize which PL/SQL8 features are supported in forms
- ☐ Handle Oracle server errors
- ☐ Perform DDL commands by using the FORMS_DDL built-in subprograms

Using Reusable Components

- ☐ List the reusable components
- ☐ Include the calendar object in an application

Test Content Checklist

Release 1 to Release 6/6i Upgrade Test:
Oracle Forms Developer Release 1 to Rel. 6/6i New Features
Exam# 1Z0-130

Creating Oracle Forms Developer Applications Using Wizards

- ☐ List the benefits of using Forms Developer wizards
- ☐ List wizard features
- ☐ Identify wizard types
- ☐ Create basic form modules using wizards

Working with the Enhanced User Interface

- ☐ Use enhancements in the Property Palette
- ☐ Create triggers using Smart Triggers
- ☐ Use enhancements in the Toolbar Ribbon
- ☐ Control item appearance by using Picker Dialogs
- ☐ Use enhancements in the PL/SQL editing environment
- ☐ Use the Forms Application Programmatic Interface (API) functionality

Ensuring Consistency Across Applications

- ☐ Apply subclassing as a replacement for referencing
- ☐ Identify improvements of subclassing over referencing
- ☐ Use the object library
- ☐ Describe the uses of property classes, object groups, and object libraries
- ☐ Create and apply SmartClasses
- ☐ Use template forms
- ☐ Modify object appearance with partial visual attributes
- ☐ Use global libraries and record groups

Representing Data Within Your Application

- ☐ Identify the effects of Array DML
- ☐ Use the features for reducing database roundtrips and memory usage
- ☐ Perform database operations asynchronously
- ☐ Use new data block properties
- ☐ Use the data sources available for queries and DML
- ☐ Determine the appropriate data sources for data blocks
- ☐ Create a data block based on a nested SELECT statement

Understanding Oracle8 Object Features

- ☐ Describe Oracle8 scalar datatypes
- ☐ Describe object types and objects
- ☐ Describe object tables, object columns and object views
- ☐ Describe the INSTEAD-OF Triggers
- ☐ Describe object REFs

Working with Oracle8 Object Features in Oracle Forms Developer

- ☐ Use the Oracle8 support in Oracle Forms Developer
- ☐ Create data blocks that use Oracle8 objects
- ☐ Coordinate data blocks using REFs
- ☐ Use the Oracle8 Large Object (LOB) support in Oracle Forms Developer
- ☐ Use PL/SQL8 support in Oracle Forms Developer

Enhancing Items

- ☐ Use the image item enhancements
- ☐ Create items based on Calculated Fields
- ☐ Recognize boilerplate objects in the Object Navigator
- ☐ Create item labels using item prompt properties
- ☐ Implement Tooltips for items
- ☐ Implement context-sensitive pop-up menus
- ☐ Include sound in your application

Release 1 to Release 6/6*i* Upgrade Test: Oracle Forms Developer Rel. 6/6*i* New Features, continued

- ☐ Set item colors and fonts directly
- ☐ Create a Hierarchical Tree Item
- ☐ Host a JavaBean in an application
- ☐ Create an LOV using the LOV Wizard
- ☐ Create an LOV dynamically

Enhancing Interactivity

- ☐ Create and edit in-place stacked canvases
- ☐ Create tab-style layouts
- ☐ Create integrated toolbar buttons for menu commands
- ☐ Display a platform-specific file dialog

Including Charts and Reports

- ☐ Include charts using the Chart Wizard
- ☐ Implement Report objects

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