

Training kit

Oracle11g: Advanced PL/SQL

Exam number: 1Z0-146

by Exam topics

http://education.oracle.com/pls/web_prod-plq-dad/db_pages.getpage?page_id=41&p_exam_id=1Z0_146#3

The list of topics below is completely correspond to the 1Z0-146 Oracle exam. The exam is the final part of certification path to become Oracle Advanced PL/SQL Developer Certified Professional.

Straight link to the Oracle documentation is pointed for each topic. For some subtopics here are a few links. In some cases the one link can match to a few topics.

This all-in-one training kit was created using only free information sources. Self-made study guide was used by me to prepare for 1Z0-146. I have passed the exam successfully. If some link is not already active please contact me - kgkuzmin@gmail.com.

Good luck to you in your move to become Oracle Certified Professional!

[] Introduction to PL/SQL

PL/SQL Programming Concepts: Review

[] List restrictions on calling functions from SQL expressions

http://docs.oracle.com/cd/E11882_01/appdev.112/e25518/adfns_packages.htm#ADFNS00908

[] Hand exceptions

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/errors.htm

[] Manage dependencies

http://docs.oracle.com/cd/E11882_01/appdev.112/e25518/adfns_dependencies.htm

[] Use Oracle-supplied packages

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/intro.htm

Designing PL/SQL Code

[] Identify guidelines for cursor design

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/static.htm#BABDHAED

[] Use cursor variables

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/static.htm#i7106

[] Create subtypes based on existing types

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/datatypes.htm#CHDEAFDJ

Working with Collections

[] Create collections (nested table, array and associative arrays, PL SQL tables)

[] Use collections methods

[] Manipulate collections

[] Distinguish between the different types of collections and their uses

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/composites.htm#LNPLS005

Using Advanced Interface Methods

- [] **Execute external C programs from PL/SQL**

- [] **Execute Java programs from PL/SQL**

http://docs.oracle.com/cd/E11882_01/appdev.112/e25518/adfns_externproc.htm

Implementing Fine-Grained Access Control for VPD

- [] **Explain the process of fine-grained access control**

- [] **Implement and test fine-grained access control**

http://docs.oracle.com/cd/E11882_01/network.112/e16543/vpd.htm

http://docs.oracle.com/cd/E11882_01/network.112/e16543/app_context.htm

Manipulating Large Objects

- [] **Create and manage LOB data types**

Introduction

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_intro.htm

Working with LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_working.htm

Managing LOBs: Database Administration

http://docs.oracle.com/cd/B28359_01/appdev.111/b28393/adlob_managing.htm

Additional info about LOB storage

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_tables.htm

LOB APIs for BFILE Operations

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_bfile_ops.htm

About CREATE DIRECTORY syntax

http://docs.oracle.com/cd/B28359_01/server.111/b28286/statements_5007.htm

DDL and DML Statements with LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_ddl.htm#i1006235

SQL Semantics and LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_sql_semantics.htm#i1013728

PL/SQL Semantics for LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_plsql_semantics.htm#i1008068

Migrating Columns from LONGs to LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_long_lob.htm#i1023763

- [] **Use the DBMS_LOB PL/SQL package**

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_api_overview.htm#i1006962

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_lob.htm#ARPLS66598

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_design.htm#i1006373

- [] **Use of temporary LOBs**

Operation specific to persistent and temporary LOBs

http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_creating.htm#g1009782

Administering SecureFile LOBs

- [] **Describe SecureFile LOB features**
- [] **Enable SecureFile LOB deduplication, compression, and encryption**
- [] **Migrate BasicFile LOBs to the SecureFile LOB format**
http://docs.oracle.com/cd/E11882_01/appdev.112/e18294/adlob_smart.htm

Performance and Tuning

- [] **Use native and interpreted compilation methods**
- [] **Tune PL/SQL code**
- [] **Enable intraunit inlining**
http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/tuning.htm

Improving Performance with Caching

- [] **Improve memory usage by caching SQL result sets and using the DBMS_RESULT_CACHE package**
- [] **Write queries that use the result cache hint**
http://docs.oracle.com/cd/E11882_01/server.112/e16638/memory.htm#BGBIIBGE
http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_result_cache.htm
- [] **Set up PL/SQL functions to use PL/SQL result caching**
http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/subprograms.htm#BABFHACJ

Analyzing PL/SQL Code

- [] **Run reports on source code**
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_1016.htm
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_1068.htm
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_1155.htm
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_2013.htm
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_2064.htm
http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_util.htm
http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_descrb.htm
- [] **Determine identifier types and usages**
http://docs.oracle.com/cd/E11882_01/appdev.112/e25518/adfns_plscope.htm
http://docs.oracle.com/cd/E11882_01/server.112/e25513/statviews_1099.htm
- [] **Use DBMS_METADATA to retrieve object definitions**
http://docs.oracle.com/cd/E11882_01/server.112/e22490/metadata_api.htm
http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_metada.htm

Profiling and Tracing PL/SQL Code

[] **Trace PL/SQL program execution**

[] **Profile PL/SQL applications**

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/tuning.htm#LNPLS878

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_trace.htm

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_profil.htm

http://docs.oracle.com/cd/E11882_01/appdev.112/e25518/adfns_profiler.htm

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_hprof.htm

Safeguarding Your Code Against SQL Injection Attacks

[] **Describe SQL injections**

[] **Reduce attack surfaces**

[] **Use DBMS_ASSERT**

[] **Design immune code**

[] **Test code for SQL injection flaws**

http://docs.oracle.com/cd/E11882_01/appdev.112/e25519/dynamic.htm#CHDFCHHJ

http://docs.oracle.com/cd/E11882_01/appdev.112/e25788/d_assert.htm