

eNSYNC: Your Certified Oracle Partner

Oracle PL/SQL Programming for IFS Applications Course Syllabus



Course Purpose

This course will give application developers and report writers the skills to create complex reports and integrate IFS with other applications at the database level using Oracle objects. Any IFS developer on your staff would benefit from this class. Demonstrations and hand-on practice will reinforce the concepts you'll delve into in this course.

Course Description

This training starts with an introduction to the Oracle database architecture and objects specific to IFS. After understanding how the database functions we go through an introduction to the Oracle PL/SQL programming language and explore the benefits of developing in PL/SQL. Through hands-on instruction you'll learn to develop stored procedures, functions, packages, and more to extend and customize the functionality of your IFS system.

Training materials, manuals and documents are provided to the students as part of the classroom experience.

Course Dates and Location

October 22-26, 2018 | February 4-8, 2019 | June 10-14, 2019 | October 21-25, 2019

Class will primarily be taught near the new eNSYNC Solutions, Inc. corporate office located in downtown Kansas City, Missouri. Hotels are a short distance away (several are within walking distance). Lunch is provided to students on the first day of class.



To Register

Please contact **816.416.5645**
or email us at training@ensyncsolutions.com

Course Objectives



Learn what IFS packages are available in the Oracle database and how to access them.
Design PL/SQL packages and program units that execute efficiently.



Write code to interface with external applications and the operating system.
Create your own custom database objects to store data and integrate IFS
with other applications.

Create database triggers and IFS events to solve business challenges.

Student Prerequisites



Previous programming experience

Basic knowledge of IFS

Laptop with a Remote Desktop client installed

Familiarity with a database development tool such as PL/SQL Developer or TOAD

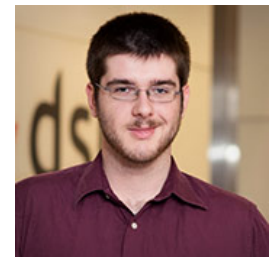


Instructor Contact Information

Instructor: **Randy Grasmick**

Email: randy.grasmick@dsiglobal.com

Phone number: 816.416.5689



Instructor Background

Randy has over five years of both Oracle and IFS administration experience. He has developed an array of solutions for IFS customers to streamline reporting, integration with other applications and data migration. Randy is also a software architect and developer for eNSYNC IFS products and integrations.

Class Size – Limited to 8 Students

Course Duration – 4.5 days (see daily schedule to follow)

Course Price – \$2,000/Student

"Automated Packaging received excellent training on PL/SQL for IFS and continues to benefit from some insightful tips and techniques. I would highly recommend this course, and instructor Alan Clark for any organization seeking to improve their return on information from IFS Applications. Great course, great value. Thank You eNSYNC."

Bill Mickey, System Development Manager-IT
Automated Packaging Systems, Inc.
Bill.Mickey@autobag.com



Course Outline

Shown below is a quick summary of the topics we will cover during class and in the order we will cover them.



Oracle Database Architecture Overview

IFS Specific Conventions

Oracle Structures

SCHEMAS

TABLES

VIEWS

Packages

Procedures

SELECT Statement

Declare Clause

Begin Clause

Exception Clause

Explicit Clause

More advanced – Declared Subprograms

Database Program Units

Creating Stored Procedures & Functions

Maintaining Stored Procedures & Functions

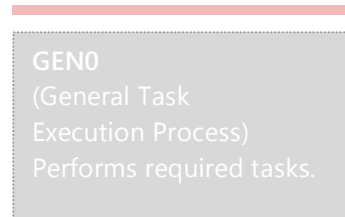
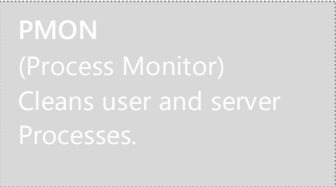
Creating and Maintaining Packages

Advanced Cursors

Using System Supplied packages

Triggers (creating and maintaining)

Implementing System event triggers



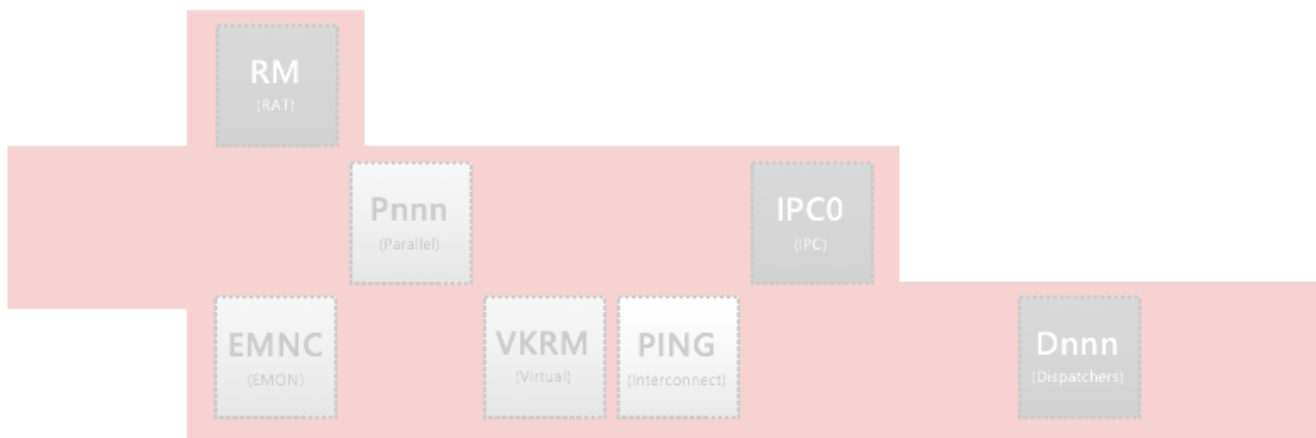
Course Schedule



Start	End	Time	Activity / Presentation
9:00 AM	9:30 AM	0:30	Introduction, Class Overview, & Expectations
9:30 AM	10:00 AM	0:30	Oracle Database Overview & Architecture
10:00 AM	10:15 AM	0:15	Connect to the Database For Training
10:15 AM	11:00 AM	0:45	IFS Oracle Database Objects; Tables, Data Types, Views, Packages, Sequences
11:00 AM	11:30 AM	0:30	IFS Object Scavenger Hunt
11:30 AM	12:00 PM	0:30	Oracle PL/SQL Language Introduction
12:00 PM	1:00 PM	1:00	Lunch
1:00 PM	2:00 PM	1:00	Oracle Query Type: SELECT Statement & Alias, FROM, WHERE
2:00 PM	2:15 PM	0:15	Oracle Conditions: AND, OR, LIKE, IN, NOT, IS NULL, IS NOT NULL, BETWEEN, EXISTS
2:15 PM	2:30 PM	0:15	Oracle Clause: ORDER BY
2:15 PM	2:45 PM	0:30	Oracle Clause: GROUP BY
2:30 PM	3:00 PM	0:30	SELECT Exercise 1
3:00 PM	3:30 PM	0:30	Oracle SQL Functions: COUNT, SUM, MIN, MAX, AVG
3:30 PM	4:00 PM	0:30	SELECT Exercise 2
4:00 PM	4:30 PM	0:30	Q&A Wrap-up

Day

Start	End	Time	Activity / Presentation
9:00 AM	9:30 AM	0:30	Review of Previous Day
9:30 AM	10:00 AM	0:30	Oracle Query Type: Subquery (a query within a query)
10:00 AM	10:30 AM	0:30	DISTINCT/UNIQUE
10:30 AM	11:00 AM	0:30	JOINS (or not to JOIN)
11:00 AM	11:30 AM	0:30	Oracle Query Type: UNION & MINUS
11:30 AM	12:00 PM	0:30	Query Exercise
12:00 PM	1:00 PM	1:00	Lunch
1:00 PM	1:30 PM	0:30	DECLARE, BEGIN, END, & EXCEPTION Clause
1:30 PM	2:00 PM	0:30	Declaring and working with variables, cursors and very basic loops.
2:00 PM	2:30 PM	0:30	Clause Exercise
2:30 PM	3:00 PM	0:30	Oracle Query Type: INSERT, UPDATE, DELETE, COMMIT, & ROLLBACK
3:00 PM	4:00 PM	1:00	Insert, Update, Delete Exercise
4:00 PM	4:30 PM	0:30	Q&A Wrap-up



Day

Start	End	Time	Activity / Presentation
9:00 AM	9:30 AM	0:30	Review of Previous Day
9:30 AM	10:00 AM	0:30	Generic PL/SQL Procedures, Functions, & Packages Overview
10:00 AM	10:30 AM	0:30	IN, OUT, IN OUT, DEFAULT parameters
10:30 AM	10:45 AM	0:15	CONSTANTS (LITERALS)
10:45 AM	11:15 AM	0:30	IFS Attribute Strings as Parameters
11:15 AM	11:45 AM	0:30	Attribute String Exercise
11:45 AM	12:45 PM	1:00	Lunch
12:45 PM	1:15 PM	0:30	IFS Built In Functions; DATABASE_SYS, COMMAND_SYS, TRACE_SYS, etc.
1:15 PM	1:45 PM	0:30	IFS Background Processing & Queues
1:45 PM	2:15 PM	0:30	Function Exercises
2:15 PM	2:45 PM	0:30	CURSORs and LOOPs (For, WHILE, IF-THEN-ELSE) continued.
2:45 PM	3:15 PM	0:30	CURSOR & Loop Exercises
3:15 PM	3:45 PM	0:30	Program Design & Best Practices Overview (Packages Are Building Blocks)
3:45 PM	4:00 PM	0:15	Introduce Class Project Selection; Generic Report Helper Utility, Email API, PDF Report Generation, Oracle APEX, IFS Messaging (EDI)
4:00 PM	4:30 PM	0:30	Q&A Wrap-up

Day

Start	End	Time	Activity / Presentation
9:00 AM	9:30 AM	0:30	Review of Previous Day
9:30 AM	10:00 AM	0:30	Finalize Class Project Selection; Generic Report Helper Utility, Email API, PDF Report Generation, Oracle APEX, IFS Messaging (EDI), Data Migration
10:00 AM	10:30 AM	0:30	Divide into Teams and start initial design
10:30 AM	11:00 AM	0:30	Teams present design and brief functional spec overview of functions and procedures
11:00 AM	12:00 PM	1:00	Initial Coding Starts
12:00 PM	1:00 PM	1:00	Lunch
1:00 PM	2:00 PM	1:00	Code Review, Walkthrough, and Discussion
2:00 PM	3:00 PM	1:00	Implement Code Changes
3:00 PM	3:30 PM	0:30	Testing & Evaluation (Did you remember to write testing scripts?)
3:30 PM	4:00 PM	0:30	Q&A Wrap-up

Day

Start	End	Time	Activity / Presentation
9:00 AM	9:30 AM	0:30	Review of Previous Day
9:30 AM	10:00 AM	0:30	Dynamic PL/SQL
10:00 AM	11:00 AM	1:00	Common Mistakes
11:00 AM	12:00 PM	1:00	IFS Coding Secrets
12:00 PM	1:00 PM	1:00	Lunch
1:00 PM	1:30 PM	0:30	Q&A Wrap-up



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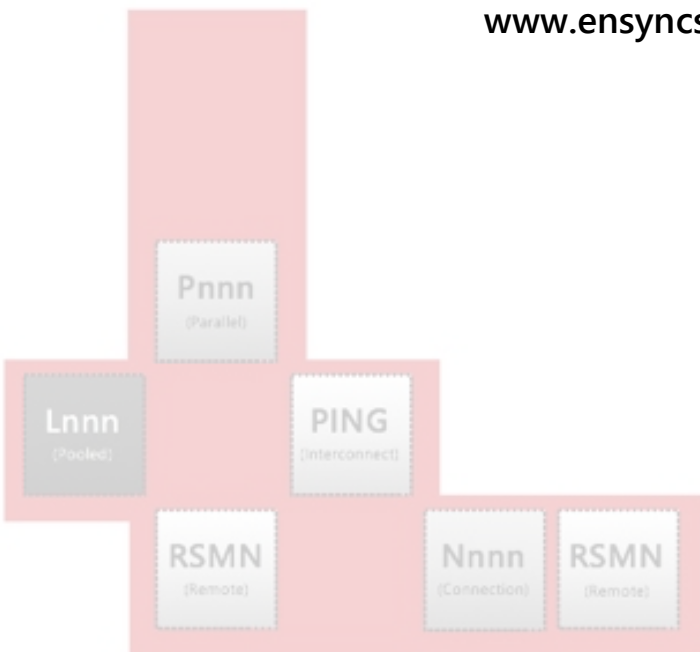


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Our industry knowledge and IFS Applications experience, coupled with our strong domain expertise in mobile data collection, product extensions and enhancements help manufacturers leverage their ERP investment. For more information, please visit our website.

www.ensyncsolutions.com



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