






**Diploma in Database Developer (991) – Oracle Designer**

<b>Prerequisites:</b> Basic knowledge of relational databases; for example, Access.	<b>Corequisites:</b> A pass or higher at Diploma level
<p><b>Aim:</b> Building enterprise-wide system from sophisticated models is now possible with Oracle Designer technology. Candidates will be equipped with the skills necessary to develop, maintain and certify process models, function models and data models along with their supporting structures. A complete, functional system will be developed over the duration of the course, allowing participants to see first hand the productivity gains achieved with the tool. All the supporting tools and utilities are also considered, including the navigators, setting preferences and fine-tuning models. Once the models have been developed, participants will learn how rapid prototypes can be generated using the Design Wizards. The course takes students along a streamlined path through the Oracle Designer development environment. It covers recording business requirements into the Repository including process modeling entity relationship modeling and function modeling. Smart companies trust the development of their mission critical systems to proven experts with verifiable track-records and real-world Oracle development experience. Well-constructed systems are easy to maintain and enhance. On completion of the course, candidates will be able to: Build robust and scalable Oracle database applications; establish a data model and a storage framework; develop powerful and efficient SQL statements; write reusable structured PL/SQL code with cursors, procedures and triggers</p>	
<b>Required Materials:</b> Recommended Learning Resources.	<b>Supplementary Materials:</b> Lecture notes and tutor extra reading recommendations.
<p><b>Special Requirements:</b> The course requires a combination of lectures, demonstrations, discussions, and hands-on labs.</p>	
<p><b>Intended Learning Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Outline Oracle Designer tools and utilities, the Components of Oracle Designer and how to start Oracle Designer Tools.</li> <li>2. Outline the advantages of separating the logical and physical storage structures and describe types of diagrams for modelling system requirements.</li> <li>3. Outline the main components of an Entity-Relationship Diagram (ERD) and the steps involved in creating an ERD</li> <li>4. Explain the relationship between modeling data and tasks, enumerate the basic</li> </ol>	<p><b>Assessment Criteria:</b></p> <ol style="list-style-type: none"> <li>1.1 Define Oracle Designer</li> <li>1.2 Analyse the components of Oracle Designer</li> <li>1.3 Outline how to start Oracle Designer tools and utilities a process diagram</li> <li>2.1 Be able to create a process step</li> <li>2.2 Outline how to add a flow, a trigger and an outcome</li> <li>2.3 Describe Data Flow Diagram (DFD)</li> <li>2.4 Describe Process Logic Specifications (structured specifications)</li> <li>2.5 Outline the Role of Functional Decomposition in Physical database design</li> <li>3.1 Define an entity</li> <li>3.2 Be able to add an entity to the entity relationship diagram model</li> <li>3.3 Define a relationship</li> <li>3.4 Be able to add relationships on an entity relationship diagram</li> <li>3.5 Define an attribute</li> <li>3.6 Be able to add attributes to an entity</li> <li>4.1 Be able to use the Function Hierarchy Diagrammer to decompose functions</li> </ol>

constructs of business process diagrams and function hierarchy diagrams. Read/write such diagrams and be able to decide which Designer Tool is best suited for a certain task.	4.2	Define elementary functions
	4.3	Outline how functions use data
	4.4	Be able to specify whether a function can create, retrieve, update or delete an instance of an entity
	4.5	Be able to use the Function/Attribute Matrix utility to create usages
	4.6	Be able to create a table definition from entities
	4.5	Outline how to create database tables
5. Outline the Form Module, Menu Module, PL/SQL Libraries, Object Libraries and Object Group (Form Builder)	5.1	Be able to create default module definitions
	5.2	Be able to modify the default module definitions
	5.3	Be able to generate a working form
	5.4	Explore how to change form characteristics
	5.5	Describe how to create a lookup table
6. Demonstrate how to run generated forms and how to refining Oracle Developer Forms.	6.1	Explore how to set a generator preference
	6.2	Be able to change a display aspect of the module definition
7. Demonstrate web application development tool for creating pages. Describe how to create simple form, report pages and how to enhance the look of applications by using stylesheets.	7.1	Be able to query using world wide web
	7.2	Be able to update using world wide web
	7.3	Be able to delete using world wide web
	7.4	Be able to enter information in an Oracle database over the world wide web
8. Outline how to exit from Oracle Designer and delete tables	8.1	Be able to close the Oracle Designer Window
	8.2	Be able to drop tables

### **Recommended Learning Resources: Oracle Designer**

<b>Text Books</b>	<ul style="list-style-type: none"> <li>Oracle Designer Handbook by Dr Paul Dorsey and Paul, Dr. Dorsey. ISBN-10: 0078824176</li> <li>Oracle Design: The Definitive Guide by Dave Ensor and Ian Stevenson. ISBN-10: 1565922689</li> <li>Oracle Designer: A Template for Developing An Enterprise Standards Document by Mark A. Kramm and Kent Graziano. ISBN-10: 0130153435</li> </ul>
<b>Study Manuals</b> 	BCE produced study packs
<b>CD ROM</b> 	Power-point slides
<b>Software</b> 	Oracle Database