

# Oracle Training at CERN



## DB Workshop for LHC online/offline developers

Montse Collados – IT/DES

January 2005



# Outline

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- Oracle tutorials
- Oracle web based courses
- Oracle on-site courses
- Oracle external courses



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- **Oracle tutorials**
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# Workshops & Tutorials

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- Organised by IT-ADC and IT-DES groups
  - ADC would be happy to setup similar events focused to the physics environment
- Either as workshop or individual seminars
  - Sessions of 1h/1h30 per topic
  - Theory & Demos
- Access to tutorial materials use in this physics database workshop
  - <http://agenda.cern.ch/fullAgenda.php?ida=a044825>
- Generic Oracle training
  - <http://cern.ch/db/training/tutorial.html>



# Existing Tutorials

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- General introduction
  - Database Design and basic SQL
  - SQL (1/3)
  - Advanced SQL I (2/3)
  - Advanced SQL II (3/3)
  - Database Architecture
  - Tuning
  - Oracle Tools
  - PL/SQL
  - PL/SQL and the Web
  - Java Relational (1/2)
  - Java and the Web (2/2)
  - OO database, C++, Java
  - UML and Oracle
- Many of which have been presented this week

# Tutorials material

The screenshot shows two overlapping windows from a Microsoft Internet Explorer browser. The left window displays a tutorial page titled "Database Design and Basic SQL Tutorial" with the following content:

**Example1**

- 1. Create a table**  

```
CREATE TABLE emp (  
  emp_no      NUMBER  
  emp_name    VARCHAR2  
  emp_job     VARCHAR2  
  emp_mgr     NUMBER  
  emp_hiredate DATE,  
  emp_deptno  NUMBER  
);
```

Tables are created with no data!  
Note: possible terminators are ; or /
- 2. Drop table**  

```
DROP TABLE emp;
```
- 3. Create a table with "not null" constraints**  

```
CREATE TABLE emp (  
  emp_no      NUMBER(4) NOT NULL,  
  emp_name    VARCHAR2(10) NOT NULL,
```

The right window displays a presentation slide titled "What did we cover?". The slide contains a flowchart of the database design process:

- Requirement Analysis produces Requirements Specification
- Conceptual Design produces ER Model (DBMS Independent)
- Logical Design produces Relational Model (DBMS Dependent)
- Physical Design
- Implementation using SQL
- Maintenance

At the bottom of the slide, it says: 17 October 2002, Database Design & Basic SQL, Paula Figueiredo, 65.



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# Oracle Web Based Courses

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- Organized by Technical Training
- Variable duration (around 1 day)
- Subscription valid for 3 months
- Low cost (around 50chf/course)
- Just in Time
  - <http://cern.ch/humanresources/external/training/tech/WBTechT/>



# Oracle Web Based Courses

Screenshot of an Oracle Skill Builder web course titled "SELECT Statements: Writing". The page displays the following SQL syntax:

```
SELECT [DISTINCT] { * , column [alias] , ... }  
FROM table;
```

Below the syntax, a list of keywords and their functions is provided:

<b>SELECT</b>	is a list of one or more columns.
<b>DISTINCT</b>	suppresses duplicates.
<b>*</b>	selects all columns.
<b>column</b>	selects the named column.
<b>alias</b>	gives selected columns different headings.
<b>FROM</b>	specifies the table containing the columns.

The screenshot also shows a navigation bar at the top with "My Learning Track", "View", "Help", and "Exit" options. At the bottom, there is a small window titled "SELECT Statements: Writing" containing a speaker icon and the text: "This topic described guidelines for constructing standard SQL statements. Part of the syntax diagram for a SELECT statement is displayed on the screen. The optional DISTINCT keyword and the alias element are covered elsewhere." Below this window, there are navigation controls including "Page 22 of 22" and "Utilities".



# Web Based Courses Subjects

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- 39 courses on Oracle
  - SQL
  - PL/SQL
  - Oracle Forms
  - Reports
  - Administration
  - Backup
  - Tuning



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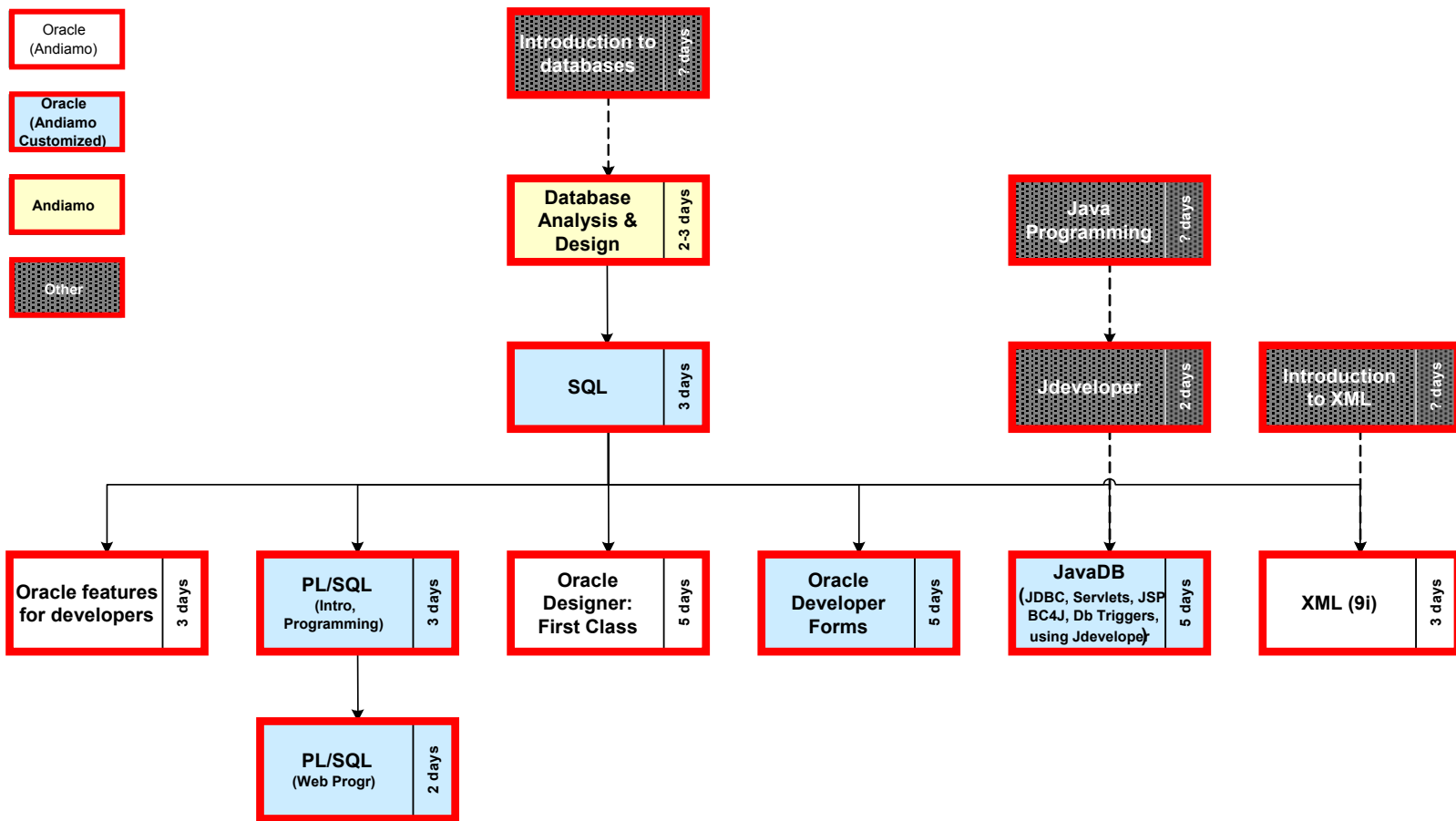


# Oracle On-Site Courses

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- Organised by IT/DES & Technical Training Service
- Provided by an external company
- Variable duration (2-5 days)
- 500-1300chf
- Needs registration
- In TT Premises
- [http://cern.ch/hr-web/external/training/tech/software/te\\_softw.asp](http://cern.ch/hr-web/external/training/tech/software/te_softw.asp)

# Oracle Curriculum at CERN



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Oracle Training at CERN  
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# Oracle External Courses

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- More expensive
  - Travel + hotel + course registration
- IT/DES can help if needed
- Recommended only if:
  - Very specific course (not offered at CERN)
  - Urgent courses

# Conclusion

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	Duration	Cost	Response	Location	Type
Oracle tutorials	short	free		CERN Desk	Overview Introduction
Oracle web based courses	1 day	~ 50chf	Flexible	Desk / Home	Pre / Post Reference
Oracle on-site courses	1-3 days	~ 1000chf	Registration	CERN	
Oracle external courses		Expensive	Can be fast	Off site	Urgent Specific





# To Stay Informed

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- IT-ADC Physics Database Service
  - For physics database workshops  
<http://wwwdb.web.cern.ch/wwwdb/phydb>
- LCG 3D Project
  - For distributed database deployment in LCG
  - <http://lcg3d.cern.ch>
- IT-DES Training Web Page:  
<http://cern.ch/db/training/>
- News Group:  
<news://cern.oracle>  
<news://cern.computing>
- Contact:  
IT/DES or IT/ADC: technical choice  
Technical Training Services: organization