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# **Are You Ready for Database 12c?**

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The Morgan of Morgan's Library on the web



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## ■ Upcoming Presentations

- Mar 21-24: Oracle User Group Norway
- Mar 28: Vancouver B.C.
- Apr 24: Benelux Connect (Netherlands)
- May 30-31: Harmony Finland
- Jun 1: Harmony Latvia



# Syllabus

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- What can I tell you about Database Version 12c?
- What should everyone know about Oracle 8.0i?
- What should everyone know about Oracle 8.i?
- What should everyone know about Oracle 9.0?
- What should everyone know about Oracle 9.2?
- What should everyone know about Oracle 10gR1?
- What should everyone know about Oracle 10gR2?
- What should everyone know about Oracle 11gR1?
- What should everyone know about Oracle 11gR2?

# Oracle Database 12c

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- It will most likely be released one to two weeks before OpenWorld
- It may not be named 12c
- Almost no one is prepared for it and this presentation is about what you can do to be prepared

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# Preparing for 12c

# Basic SQL

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- DDL statements
  - What do you know about basic objects in Oracle such as
    - Tables
    - Constraints
    - Indexes
    - Materialized Views
    - Database Links

# Tables

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- Heap
- Composite Partitioned
- Compressed
- External
- Global Temporary
- Index Organized
- Partitioned
- Read Only
- XML

# Constraints

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- Why do primary key and unique constraints have unique indexes?
- Learn about deferrable constraints
- Why does everyone create NOT NULL constraints on Primary Key columns?



# Indexes

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- B\*Tree
- Bitmap
- Bitmap Join
- Compressed
- Descending
- Function Based
- Invisible
- No Segment
- Reverse
- Star
- ... on Virtual Columns

# Database Links

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```
CREATE DATABASE LINK fixed_user
CONNECT TO hr IDENTIFIED BY hr;

col owner format a20
col db_link format a15
col username format a20
col host format a12

SELECT * FROM dba_db_links;

ALTER DATABASE LINK fixed_user
CONNECT TO hr IDENTIFIED BY hrnew;
```

# Basic SQL

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- DML statements
  - SELECT with RETURNING clause
  - SELECT with SAMPLE clause
  - INSERT statement with records
  - INSERT WHEN
  - INSERT ALL
  - INSERT FIRST
  - INSERTing into a SELECT statement
  - UPDATE with RETURNING clause
  - UPDATE with SET ROW
  - DELETing from a SELECT statement
  - DELETE with RETURNING clause
  - MERGE can also include a DELETE

# Basic PL/SQL

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- CONTINUE clause
- Native compilation
- NOCOPY compiler hint
- PL/SQL Warnings
- PRAGMA INLINE
- PRAGMA SERIALLY REUSABLE
- Result Cache
- Triggers
- Array Processing
  - BULK COLLECT
  - FORALL
  - SAVE EXCEPTIONS

# Basic PL/SQL

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- Table Triggers
  - COMPOUND
  - FOLLOWS clause
  - OF clause
  - WHEN clause

# Edition Based Redefinition

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- Editions
- Editioning Views
- Cross-Edition Triggers

# Built-in Packages

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- DBMS\_APPLICATION\_INFO
- DBMS\_PCXLUTIL
- DBMS\_SQL
  - converting from DBMS\_SQL to NDS

# Production Code

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```
COL column_name FORMAT a30
COL data_type FORMAT a20
COL file_name FORMAT a60
COL name FORMAT a30
COL object_name FORMAT a30
COL owner FORMAT a25
COL segment_name FORMAT a30
COL service_name FORMAT a30
COL triggering_event FORMAT a35
COL value FORMAT a30

DEFINE _EDITOR=VI

SET ARRAYSIZE 500
SET DEFINE OFF
SET LINESIZE 121
SET LONG 1000000
SET PAGESIZE 45
SET SERVEROUTPUT ON
SET TRIM ON
SET TRIMSPOOL ON

SET sqlprompt '_CONNECT_IDENTIFIER> '

ALTER SESSION SET NLS_DATE_FORMAT = 'DD-MON-YYYY HH24:MI:SS';
ALTER SESSION SET PLSQL_WARNINGS='ENABLE:ALL';
```



# Questions

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**ERROR at line 1:**

**ORA-00028: your session has been killed**



**All demos at [morganslibrary.org](http://morganslibrary.org)**

- **Library**
- **How Can I?**

**Thank you**