Database System

Lecture 3

Theoretical

INTRODUCTION TO ORACLE DATABASE

Prepared By

Dhafer Sabah Yaseen

INTRODUCTION TO ORACLE DATABASE

A database is a collection interrelated data that helps in storing the information. Management of data include the maintenance of data which retrieving the information from the database, inputting the information etc ; And the system which performs both the collection and management of the data is known as a Database Management System which is commonly called as DBMS.

All the below mentioned models are the record based models
1) Network (Line) database management systems.
2) Hierarchical database management systems
3) Relational database management systems.

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RDBMS:

Its primary goal is to provide a convenient and efficient environment where user can work easily and efficiently.

* Authorization can be maintained in Database.

* Mainly used for multiuser environment.

Sir Edgar .F.Codd proposed 12 Codd rules for a database to be a fully pledged RDBMS.

 * Oracle follows 11 1/4 rules.

Oracle Stand for

Oracle : Object-Relational Database Management System

Oracle : Oak Ridge Automatic Computer and Logical Engine

Oracle : One Rich Arshole Called Larry Ellison

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Properties of RDBMS

1. Sharing of data.
2. Centralized control of data by DBA(Database Administrator)
3. Security.
4. Easy retrieval of data.
5. DML operations are possible easily.(like deleting and updating)
6. Transaction Management.
7. Systematic treatment of NULL values

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Features of Oracle

➢ Platform Independent
➢ Distributed
➢ Durability (up to 9999 A.D)
➢ Very large data base(up to 512 peta byte)
➢ Online and off line transactions
➢ DW (Data Warehousing)
➢ 14 security layers
➢ No virus

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Oracle Database Objects

Objects which are stored in database are called DB objects.

➢ Table - primary database object
➢ Views
➢ Synonyms
➢ Indexes
➢ Clusters
➢ Sequences
➢ Users
➢ Roles
➢ Procedures
➢ Functions
➢ Packages
➢ LOBs(Large objects)
➢ Types(Abstract Data type)

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What is Oracle?

    Oracle is primarily a relational database company that offered few or no services when it first started with version 3. At that time, relational databases were a new way of thinking about how to store the data. The key to this type of database is understanding the relationships between data and then structuring in the database to reflect those relationships.

Oracle: It is known as backend tool ,server Always clients request information from server .These clients are known as front ends.

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Oracle versions

oracle 1,2,3,4,5,6,6.2,7.0,7.1,7.2 ,8,8i, 9i ,10g(grid computing), 11g(grid computing),12c (cloud computing),

oracle 1 Database Release   :1969
oracle 8i Database Release   :2000(internet version)
Oracle9i Database Release 1 : 9.0.1.0–9.0.1.5 (patchset as of December 2003)
Oracle9i Database Release 2   : 9.2.0.1–9.2.0.8 (patchset as of April 2007)
Oracle Database 10g Release1: 10.1.0.2–10.1.0.5 (patchset as of Feb. 2006)
Oracle Database 10g Release 2: 10.2.0.1–10.2.0.5 (patchset as of April 2010)
Oracle Database 11g Release1: 11.1.0.6–11.1.0.7 (patchset as of Sep. 2008)
Oracle Database 11g Release 2: 11.2.0.1–11.2.0.4 (patchset as of August 2013)
Oracle Database 12c Release 1: 12.1.0.1 (patchset as of June 2013)
Oracle Database 12c Release 1: 12.1.0.2 (patchset as of July 2014)
Oracle Database 12c Release 2: 12.2.0.1 (patchset as of March 2017

i   : stand for (Internet) .
g   : stand for (Grid Computing)
c   : stand for (Cloud Computing)

Thank you

Dhafer Sabah Yaseen