

Implementation of Database Based on Oracle SQL Developer 11g

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Abstract: Oracle SQL Developer is a robust client tool that can support the database developer to browse, query and update. The database run reports and originate, edit and debug Programmable Language/ Structured Query Language (PL/SQL). SQL Developer is written entirely in Java and as such can be run on a number of platforms enabling users with windows client to remotely arrival SQL Developer on a remote Server, thus reducing network traffic by running queries on the Server and not over the network. In this paper we have tried to implement database for manage information departments in proposal company to illustrate many of the features provide by SQL Developer to support the database developer.

Key Words: Company Management ,Oracle Database.

1. INTRODUCTION:

This paper describes the practical work in oracle sql developer software. Given that Oracle was an early adopter of the relational model and SQL, SQL provides orders for a variety of tasks, including:

- querying information.
- adding, altering, and deleting rows in tables.
- creating, replacing, and dropping objects
- controlling arrival to the database and its objects
- include database consistency and integrity
- SQL integrate all of the above tasks in one consistent language[1].
- Our works are make table of departments of the proposal company. That we proposed it by using the orders of oracle sql developer (structured query language), Oracle not considers program language but it's a database language programmed for database, so it's database not an autonomic program language the SQL orders divided into three groups:

1-Data definition language (DDL): this part contain three orders

(CREATE TABLE),(ALTER TABLE),(DROP TABLE).These orders used for tables with fields of this tables only.

*2-Data manipulation language (DML):*contain four orders

(INSERT INTO),(UPDATE),(DELETE),(SELECT). These orders used for the data in the tables.

3-Data control language (DCL): this part contain two orders

(GRANT),(REVOKE).

All these orders we used in the tables of company.

2. MATERIALS:

Database and Instance An Oracle database server depend on a database and at least one database instance (commonly indicate to as simply an instance). Because an instance and a database are so carefully connected, the term Oracle database is sometimes used to indicate to both instance and database. In the strictest sense the terms have the following meanings:

- Database: A database is a set of files, located on disk, that warehouse data. These files can occur separately of a database instance.
- Database instance: An instance is a set of memory structures that produce database files. The instance consists of a divide memory area, called the system global area (SGA), and a set of background processes. An instance can occur break up of database files[2].

3. METHOD:

The heart and life of the E-Business Suite is the database. it not only warehouse the information in tables under different schemas, but also warehouses numerous other objects (such as procedures, database triggers, packages, functions, indexes, and sequences) that are desired for the application to function. The Database Node is where the Oracle Database instance runs and arrival the database files. The Oracle E-Business Suite is a complex Enterprise Resource Planning program that consists of numerous components. The main components that include the E-Business Suite are the Forms Server, Client, Web Server, Concurrent Processor. Each of these functions a role in servicing Oracle Applications [3].

The Oracle security model is a multi-layered one. It integrate the protection of files and objects both inside and outside the database, as well as a type of administrative policies and technical planning.

The layers of security in oracle can be perform from the following:

- Protecting the Oracle operating system files—the RDBMS and Oracle software.
- Protecting the application rule which react with Oracle database.
- Controlling dealings to the database.
- Controlling arrival to the database tables through roles, grants, triggers, and procedures.
- Controlling arrival to a table through views, triggers, and procedures.
- guarantee recoverability of the corporate data.
- Enabling more complex forms of security such as data encryption, digital signatures, and single sign-on.
- Supporting web site framework and database access [4].

4. DISCUSSION:

We explain the proposal company management by using oracle data base to materializing authentication and more security because oracle characterized by secure and authenticity. When oracle sql developer software operates the program asked for user name and password see figure(1).

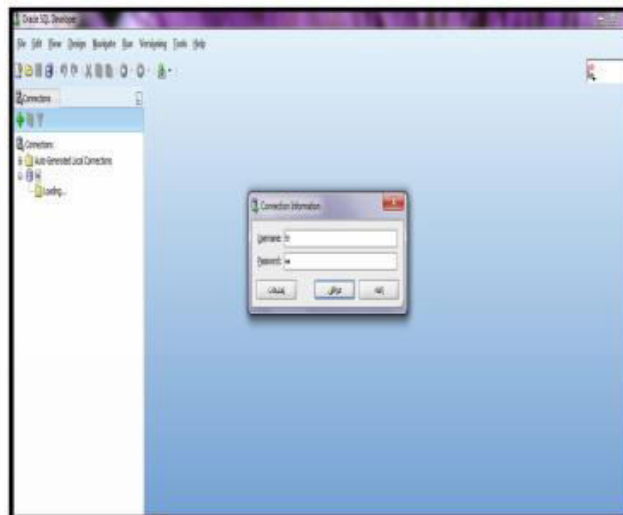


Fig 1: Authentication Level

Implementation The Proposal Company Departments

In the practical work we made table of departments of the proposal company that we proposed it by using oracle statements.

The table fields of departments are:

1. the number of the department ,type of data is number and the number of character(4).
2. the name of the department ,type of data in varchar2 and the number of character in the name(30).
3. the number of the manager of the department, type of data in number and the number of character are(6).
4. the number of the location of the department, type of data in number and the number of characters are(4).

Finally if the phrases occur "TABLE CREATED" that mean we success in table creation. See figure(2) and figure(3).

```

CREATE TABLE 'DEPARTMENTS'
(
  'DEPARTMENT_ID' NUMBER(4),
  'DEPARTMENT_NAME' VARCHAR2(30 BYTE) CONSTRAINT 'DEPT_NAME_UK' NOT NULL ENABLE,
  'MANAGER_ID' NUMBER(6,1),
  'LOCATION_ID' NUMBER(4),
  CONSTRAINT 'DEPT_ID_PK' PRIMARY KEY ('DEPARTMENT_ID') USING INDEX PARTITIONED BY DEPARTMENTS USE LOCAL RANGE GROUPS STATISTICS SINGULAR DOLLAR,
  CONSTRAINT 'DEPT_MGR_FK' FOREIGN KEY ('MANAGER_ID') REFERENCES 'EMP' ('EMPLOYEE_ID') ON DELETE CASCADE,
  CONSTRAINT 'DEPT_LOC_FK' FOREIGN KEY ('LOCATION_ID') REFERENCES 'EMP' ('LOCATION_ID') ON DELETE CASCADE
)

```

Fig. 2: Source code for creating the departments table.

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID	MANAGER_NAME
1	Administration	200	1700	(null)
2	Marketing	200	1800	(null)
3	Purchasing	110	1700	(null)
4	Human Resources	200	2400	(null)
5	Shipping	120	1800	(null)
6	IT	100	1400	(null)
7	Public Relations	204	1700	(null)
8	Sales	145	2800	(null)
9	Executive	100	1700	(null)
10	Finance	100	1700	(null)
11	Accounting	205	1700	(null)
12	Treasury	(null)	1700	(null)
13	Corporate Tax	(null)	1700	(null)
14	Control and Credit	(null)	1700	(null)
15	Shareholder Services	(null)	1700	(null)
16	Benefits	(null)	1700	(null)
17	Manufacturing	(null)	1700	(null)
18	Construction	(null)	1700	(null)
19	Contracting	(null)	1700	(null)
20	Operations	(null)	1700	(null)
21	IT Support	(null)	1700	(null)
22	HR	(null)	1700	(null)
23	IT Helpdesk	(null)	1700	(null)
24	Government Sales	(null)	1700	(null)
25	Retail Sales	(null)	1700	(null)

Fig. 3: The Table of Departments

5. CONCLUSION:

Oracle database system can be used to manage employees information in proposal company to easy interface between user and database and enhance performance and security. The company consist of many of departments such as Administrations , IT, sales, marketing , public relations , finance and human resources . chief can be control for all the user names and password in database system also administrator can be add ,update and delete any user and limits the privilege and roles for all users.

The system is to implement system for achieve Database .The proposed system is to design and implement management system for proposal company using oracle Database management system 11g. This paper aims to solve the problem of storing all the knowledge related to the system, which include details for each employee like first name, last name, and salary, hire date, manger identifier, location identifier and department identifier for all departments in proposal company.

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