Research on Evaluation Performance of Relational Database

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Abstract: This paper focuses on the creation of a single system for distribution to a team of developers. Oracle Form Builder are popular and made the function of project expansion easier and comparably faster to reduce costs and improve performance levels for users. Design of administration system in client side is made available to employees to assist them in the performance of their job duties. Both Oracle Database and MySQL are strong relational database management systems that effectively run great amounts of data. Oracle Database is a full distinct database engine that has successfully passed severe security exams and has excelled in performance benchmarks. With built-in backup for PL/SQL and Java. Oracle focusing on Java for next generation commerce applications.

Key Words: Oracle Database, MySQL, severe security, system access.

1. INTRODUCTION:

In the range of security, the popularization and application of Internet, communications and computer connection technology has been quick development, , work and live [1]. In this paper we distinguish The System Global Area (SGA) and other memory areas, Database related files, Database concerning background processes, Table spaces and Data files, the instance and the database. Database instance has many background processes based on configuration. System Global Area is shared memory for SMON, PMON, DBWR, LGWR, ARCH, RECO, etc. Recovery Manager (RMAN) supports spicy backups and action as a separate central repository for manifold Oracle database servers.

2. MATERIALS:

we divide the checking of the components of an Oracle system into two master regions —Oracle operating system files (the physical entities) and Oracle database objects (the logical entities). A basic database security system, an audit system, and a user account repair application . Oracle supply highly clarify grained authorization controls to end system access. intercepting access should inclusive applying the principal of lower privilege [1].

3. ORACLE MEMORY STRUCTURE:

The memory structure means sorting of logical memory for many processes of oracle see figure (1). The memory structures with Oracle Database include: System global area (SGA) and Program global area (PGA). SGA is a collection of common memory, known as SGA strains, that comprise data and control files for one Oracle Database instance. paradigms of data stored in the SGA contain cached data blocks and common SQL regions. A PGA is a not common memory region that contains data and control files exclusively for use by an oracle operation The PGA is formed by Oracle Database when an oracle operation is initiated [2].

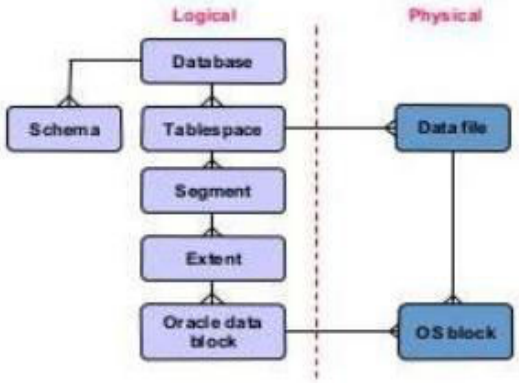

Fig 1: Memory Structure

Client / Server System:

Oracle network services dealing with network connexions from a client or middle-tier implementation to the server. After a network hearing is instituted, oracle network acts as the data messenger for both the client and the server. It is accountable for foundation and repairing the link between the client and server, as well as substitute data between them.

oracle network such as Java Database Connectivity (JDBC), is existing on each pc that necessarily for talking to the server. On the client ,oracle net is a background component accessed by whatever program needs connecting to the database such as oracle forms. The client not sees oracle network, simply the program that is using it. On the server,

oracle network includes an quick operation called the listener. The oracle network listener is dependable for coordinating connexions between the database and foreign programs. Without the listener, foreign connexions to the database are impossible. While the most collective use of oracle network is allowing arrivals database communications, services also can be configured for allowing enter to foreign program libraries and commands and connecting , see figure(2)[3].

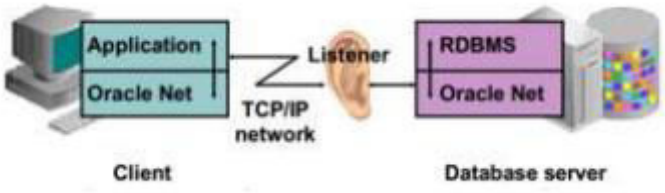

Fig 2:Client/ Server Connection

Creating an Employee Self-Service Requestor Form:

In figure (3) show employees table consist of :

1. employees _id, type of data in number and the number of character(6).
2. First name, type of data in varchar2 and the number of character(20).
3. Last name, type of data in varchar2 and the number of character(25).
4. Email ,type of data in varchar2 and the number of character(25).
5. Phone number, type of data in number and the number of character(20).
6. Hair _date, type of data not null enable.
7. Job_id, type of data in varchar2 and the number of character(10).
8. salary, type of data in number and the number of character(8).
9. commission_pct, type of data in number and the number of character(2).
10. manager_id, type of data in number and the number of character(6).
11. department_id, type of data in number and the number of character(4).

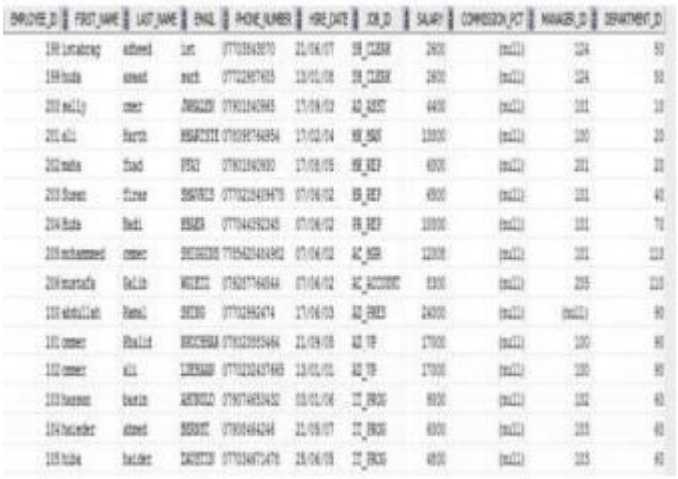

Fig 3: Employees Table

In figure (4) and figure(5) show many tasks are designed in oracle form builder such as query, insert, delete records as GUI

Fig 5: Administration System

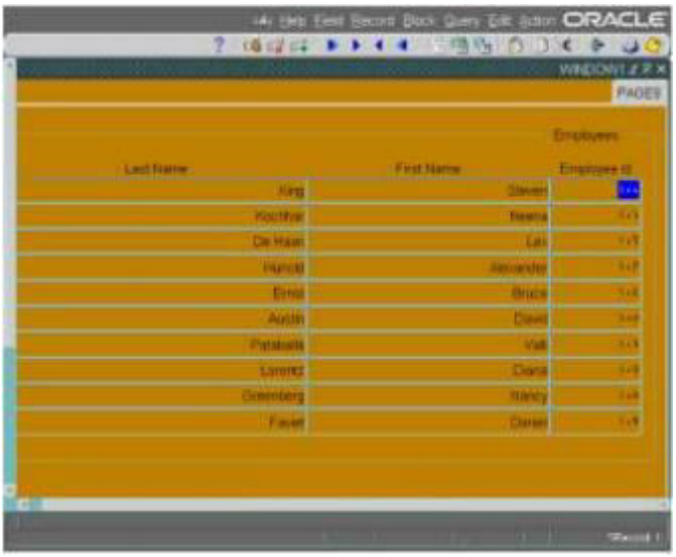

Fig 6: Employees Table in Form Builder

ADMINISTRATION SYSTEM OBJECTS:

Objects that are used in administration systemin with oracle can be raise the performance of back data. This objects describe bellow:

Schema

Schema objects are client-created frameworks that reference to the information in the system. The system backup numerous types of schema , the most important of which are tables and indexes. A schema object is one type of database object. Some objects such as profiles and roles, do not notification in schemas [4].

Index

An index is an volitional data framework that we can activate on one or more columns of a table. Indexes can raise the performance of back data. When conversion a call, the database can use ready indexes to define the called archives efficiently. Indexes are helpful when sustem often request a specific information. Indexes are logically and physically separate of the data. Thus, we can delete and make indexes with no influence on the tables or other indexes [4].

CONCLUSION:

The administration system is interfacing database Oracle Form Builder software to easy interface between user and database and enhance performance and security. Companies use Oracle Form Builder for application development requiring the capabilities that MySQL does not offer such as it includes a procedural language to develop stored procedures, triggers, and functions, views. Design of administration system in client is made available to employees to assist them in the performance of their job duties.

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