

## **Experiment Title-1: Introduction To DBMS, RDBMS, ORACLE, Basic SQL Commands**

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**Branch: CSE-IOT**

**Section/Group: A**

**Semester: 3<sup>RD</sup>**

**Date of Performance: 18-08-2021**

**Subject Name:- DBMS**

**Subject Code: 210-20CSP-233**

**1. Aim/Overview of the practical: Introduction To DBMS, RDBMS, ORACLE, Basic SQL Commands**

**2. Task to be done: Explain in Detail, DBMS, RDBMS, ORACLE and differentiate between them. Also elaborate basic SQL Commands**

**3. Apparatus (For applied/experimental sciences/materials based labs): No**

**4. Algorithm/Flowchart (For programming based labs): No**

## 5. Theme/Interests definition ( For creative domains):

- **DBMS:** A Database Management System (DBMS) is software designed to store, retrieve, define, and manage data in a database. It is a software for storing and retrieving users' data while considering appropriate security measures. It consists of a group of programs which manipulate the database. The DBMS accepts the request for data from an application and instructs the operating system to provide the specific data. In large systems, a DBMS helps users and other third-party software to store and retrieve data.
- **RDBMS:** A relational database management system (RDBMS) refers to a collection of programs and capabilities that is designed to enable the user to create, update, and administer a relational database, which is characterized by its structuring of data into logically independent tables.
- **ORACLE database:** Oracle database is cross-platform. It can run on various hardware across operating system including window server, Unix, and various distributions of GNU/LINUX. It has its networking stack that allows application from a different platform to communicate with the Oracle Database smoothly. For example, applications running on windows can connect to the oracle Database running on Unix.
- **Basic SQL Commands:**  
**There are five types of commands:-**
  1. **DDL:-** DDL changes the structure of the table like creating a table, deleting a table, altering a table, etc.  
**some commands that come under DDL:- Create, Alter, Drop and Truncate.**
  2. **DML:-** DML commands are used to modify the database. It is responsible for all form of changes in the database.  
**some commands that come under DDL:- Insert, Delete and Update.**

3. **DCL:-** DCL commands are used to grant and take back authority from any database user.

**some commands that come under DDL:- Grant and Revoke.**

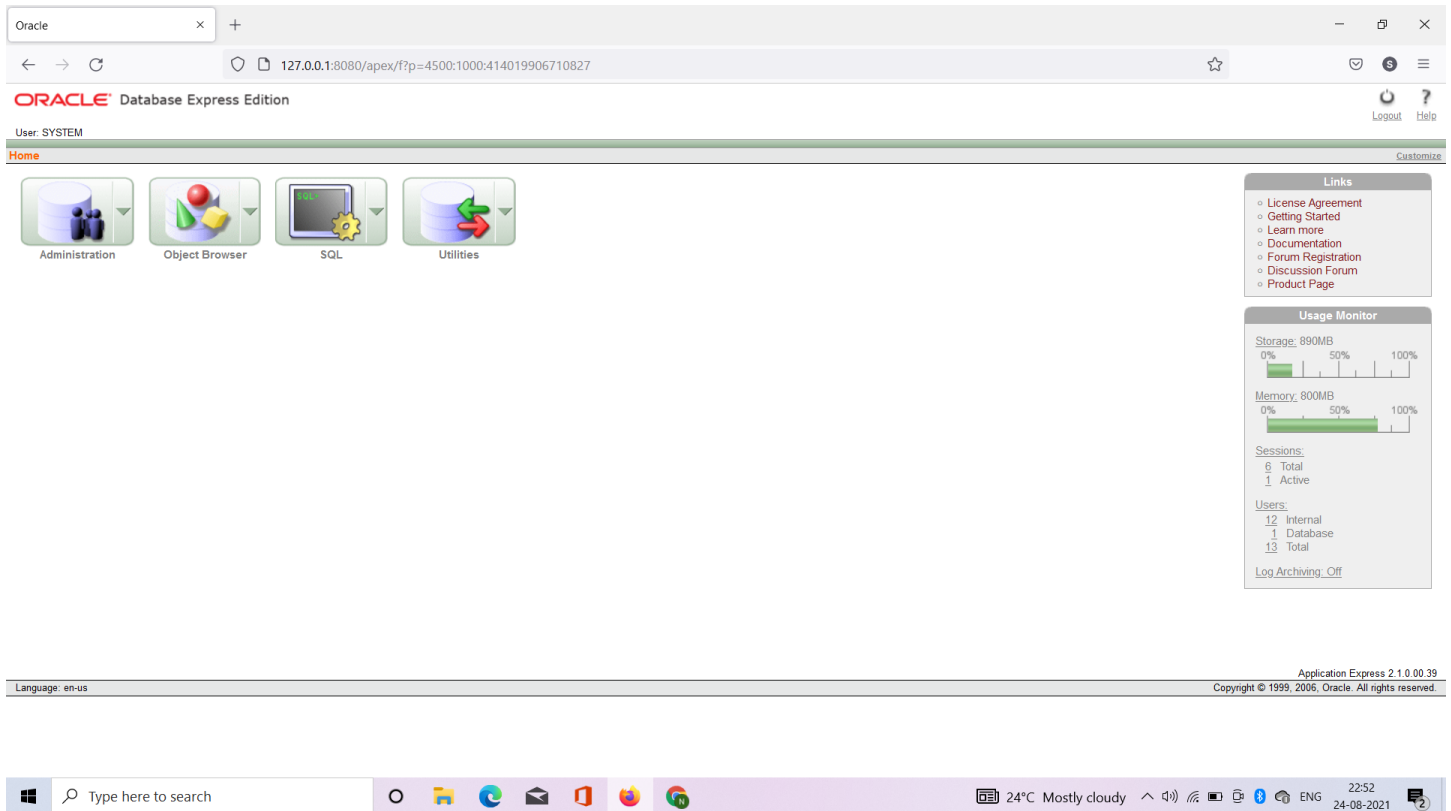
4. **TCL:-** TCL commands can only use with DML commands like INSERT, DELETE and UPDATE only.

**some commands that come under DDL:- COMMIT, ROLLBACK and SAVEPOINT**

5. **DQL:-** DQL is used to fetch the data from the database.

**It uses only one command:- SELECT**

## 6. Steps for experiment/practical:



The screenshot displays the Oracle Database Express Edition web interface. The browser address bar shows the URL `127.0.0.1:8080/apex/f?p=4500:1000:414019906710827`. The page title is "ORACLE Database Express Edition". The user is logged in as "SYSTEM". The main navigation area includes links for Administration, Object Browser, SQL, and Utilities. On the right, there is a "Links" section with various resources and a "Usage Monitor" section showing storage and memory usage. The bottom of the page includes a footer with "Language: en-us" and "Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.".

Oracle

127.0.0.1:8080/apex/f?p=4500:1000:414019906710827

ORACLE Database Express Edition

User: SYSTEM

Home

Administration Object Browser SQL Utilities

Links

- License Agreement
- Getting Started
- Learn more
- Documentation
- Forum Registration
- Discussion Forum
- Product Page

Usage Monitor

Storage: 890MB

Memory: 800MB

Sessions:

- 6 Total
- 1 Active

Users:

- 12 Internal
- 1 Database
- 13 Total

Log Archiving: Off

Language: en-us

Application Express 2.1.0.00.39

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**7. Observations/Discussions (For applied/experimental sciences/materials based labs): NO**

**8. Percentage error (if any or applicable): NO**

**9. Calculations/ Chemical Reactions / Theorems /Formulas used etc : NO**

**10. Result/Output/Writing Summary: NO**

**11. Graphs (If any): Image/Soft copy of graph paper to be attached here:- NO**

## Learning outcomes (What I have learnt):

1. Introduction to DBMS
2. RDBMS
3. Oracle
4. Basic commands of SQL
5. Installation of Oracle Database 10g

## Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

| Sr. No. | Parameters | Marks Obtained | Maximum Marks |
|---------|------------|----------------|---------------|
| 1.      |            |                |               |
| 2.      |            |                |               |
| 3.      |            |                |               |
|         |            |                |               |