## ****DBMS LAB STUFF****

## ****What is a Database Management System (DBMS)?****

* A database management system (DBMS) is software that stores and manages data. The database management system (DBMS) was first established in the 1960s to store any type of data. It also allows for data modification such as insertion, deletion, and updating.
* The DBMS system also manages the database by defining, generating, modifying, and regulating it. It’s built to develop and preserve data while also allowing each business application to retrieve the information it needs.

## ****What is a Relational Database Management System (RDBMS)?****

* RDBMS stands for Relational Database Management System and is a more sophisticated version of a database management system. It was established in the 1970s. In addition, an RDBMS system allows an organisation to access data more quickly than a DBMS system.
* RDBMS stands for Relational Database Management System, and it is a software system that is used to store only data in the form of tables. Data is handled and stored in rows and columns, which are referred to as tuples and attributes, in this type of system. RDBMS (Relational Database Management System) is a strong data management system that is extensively used across the world.

# Difference Between DBMS and RDBMS

| **DBMS** | **RDBMS** |
| --- | --- |
| [DBMS](https://www.geeksforgeeks.org/introduction-of-dbms-database-management-system-set-1/) stores data as file. | [RDBMS](https://www.geeksforgeeks.org/rdbms-architecture/) stores data in tabular form. |
| Data elements need to access individually. | Multiple data elements can be accessed at the same time. |
| No relationship between data. | Data is stored in the form of tables which are related to each other. |
| Normalization is not present. | Normalization is present. |
| DBMS does not support distributed database. | RDBMS supports distributed database. |
| It stores data in either a navigational or hierarchical form. | It uses a tabular structure where the headers are the column names, and the rows contain corresponding values. |
| It deals with small quantity of data. | It deals with large amount of data. |
| Data redundancy is common in this model. | Keys and indexes do not allow Data redundancy. |
| It is used for small organization and deal with small data. | It is used to handle large amount of data. |
| Not all Codd rules are satisfied. | All 12 Codd rules are satisfied. |
| Security is less | More security measures provided. |
| It supports single user. | It supports multiple users. |
| Data fetching is slower for the large amount of data. | Data fetching is fast because of relational approach. |
| The data in a DBMS is subject to low security levels with regards to data manipulation. | There exists multiple levels of data security in a RDBMS. |
| Low software and hardware necessities. | Higher software and hardware necessities. |
| Examples:[XML](https://www.geeksforgeeks.org/xml-basics/), Window Registry, Forxpro, dbaseIIIplus etc. | Examples: [MySQL](https://www.geeksforgeeks.org/architecture-of-mysql/), [PostgreSQL](https://www.geeksforgeeks.org/what-is-postgresql-introduction/), [SQL](https://www.geeksforgeeks.org/what-is-sql/) Server, Oracle, Microsoft Access etc. |

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