

## **DBMS Package:-**

Stands for "Database Management System." In short, a DBMS is a database program. DBMS is a software in which data is stored and changes can be made as per the need, change means that something can be added, removed, subtracted, etc. to that data.

DBMS is a software that keeps any kind of data secure in one place, so that the data of any organization / company etc. can be easily viewed and stored in any other system at any time. DBMS user can prepare the data base as per his requirement. A database is a working group of programmers in which any kind of change can be made. It is a software system that uses a standard method of cataloging, retrieving, and running queries on data. The DBMS manages incoming data, organizes it, and provides ways for the data to be modified or extracted by users or other programs. A database is a collection of related data which represents some aspect of the real world. A database system is designed to be built and populated with data for a certain task.

## **Some DBMS examples:-**

MS Access, Fox Pro, SQL, My SQL, SQL Server, Oracle, etc.

There are different fields where a database management system is utilized. Following are a few applications which utilize the information base administration framework –

1. Railway Reservation System
2. Library Management System
3. Banking
4. Education

5. Credit card exchanges
6. Social Media Sites
7. Broadcast communications
8. Account
9. Online Shopping
10. Human Resource
11. Manufacturing
12. Airline Reservation

## **Advantages of Database Management System**

A Database Management System (DBMS) is characterized as the software framework that permits users to indicate, create, maintain and control access to the data set. The DBMS allows an end-user to create, read, update and erase required data in the dataset. DBMS works like a layer between the programs and data. Database has following advantages:-

### **1. Data Integrity:-**

Data integrity means data is consistent and accurate in the database. It is essential as there are multiple databases in DBMS. All these databases contain data which is visible to multiple users. Therefore, it is essential to ensure that data is consistent and correct in all databases for all users.

### **2. Data Security:-**

Data security is a vital concept in a database. Only users authorized must be allowed to access the database and their identity must be authenticated using username and password. Unauthorized users shouldn't be allowed to access the database under any circumstances as it violets the integrity constraints. A DBMS provides a better platform for data privacy thus helping companies to offer an improved data security.

### **3. Better data integration:-**

Due to the database management system, we have access to well managed and synchronized form of data making it easy to handle. It also gives an integrated view of how a particular organization is working and keeps track of how one segment of the company affects another segment.

### **4. Minimized Data Inconsistency:-**

Data inconsistency occurs between files when various versions of the same data appear in different places. Data consistency is ensured in the database; there is no data redundancy. Besides, any database changes are immediately reflected by all users, and there is no data inconsistency.

### **5. Faster Data Access:-**

The database management system helps the users to produce quick answers to queries making data accessing accurate and faster.

**Database management systems are majorly divided into two categories:**

- (I) Relational Database Management Systems (RDBMS)
- (II) Non-relational Database Management Systems (NRDBMS)