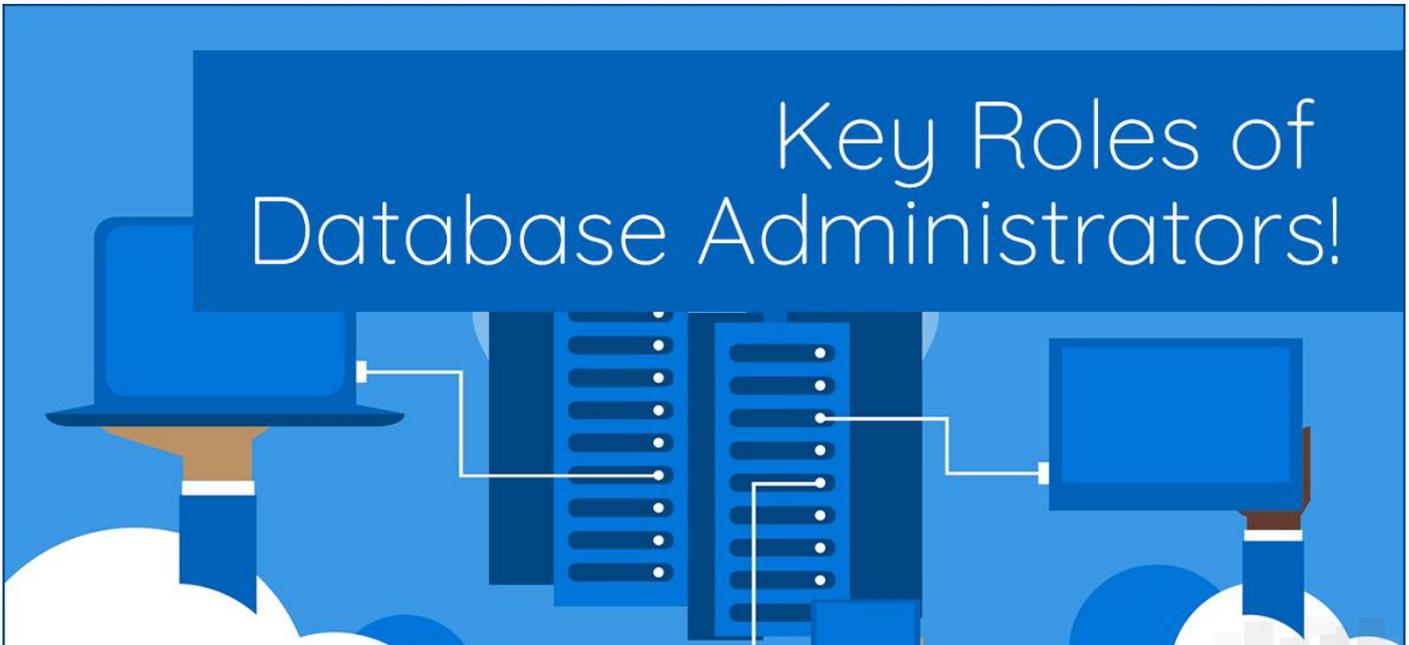


Database Administrator Roles and Responsibilities in an Organization



Today, most of the organizations are dependent on DBMS owing to huge data derived online. The data could be used for customer analysis, services, understand business notions, geographical superiority in business, and, so forth.

In brief, the utilities of the data vary as per organizations' theme and need a centrally managed services that are distributed over the LAN, Networks, Internet-based order system, services, and so forth.

The Database Administrator plays a key role in handling these extremely sensitive data across the departments/zones of an organization. The Database Administrator's foremost work profile is to ensure the data creation, availability, storage, protection from corruption or loss, facilitate easy retrieval of a part or the whole as required.

Let's understand about database management system, its advantages in brief and investigate the primary roles of a database administrator.

Database Management System [DBMS]: Database Management System is a collection of programs for managing data. It is a system software which enables the storage, modification, manipulation, and extraction of data from a database.

It supports the varied users to CREATE, MANAGE, RETRIEVE, UPDATE, and STORE the information.



For instance: A small business, industry, or an enterprise have a huge amount of data relating to their vendors, customers, in-house team, core business, and, etc. Management of this huge data is really a mess and consumes lots of time and labor.

With DBMS, it is possible for the varied users [such as native user, online user, Application programmer, sophisticated user, or the Database administrator] to retrieve data on demand with the help of applications and interface provided by the DBMS.

The DBMS could be used for a wide range of industry segments such as the Banking, Manufacturing, Human Resources, and, so forth.

The DBMS is widely accepted across the business segments because it:

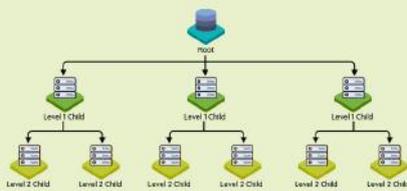
- Is easy to understand
- Has Ability to query processing
- Is effective and secure
- Helps to make better decision
- Shares precise information
- Provides access to accurate data
- Helps to manage data efficiently
- Is to store and update data

The four categories of Database available in the market include:

- Hierarchical Databases
- Network Databases
- Relational Databases
- Object-oriented Databases

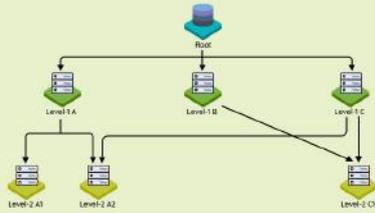
TYPES OF DATABASES

1. Hierarchical Databases



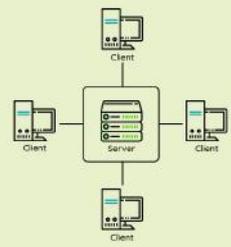
Hierarchical database could be accessed and updated at a faster rate. The main reason one could attribute for this fastness is that the structural model is like a tree. It has a two-edged feature and the relationships are defined in advance.

2. Network Databases



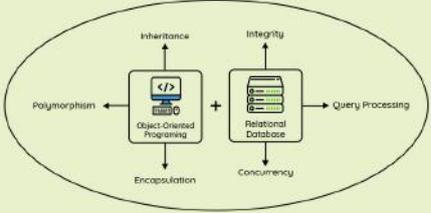
Network databases are nothing but interconnected network of records. Here, the children are referred to members and parents as occupier.

3. Relational Databases



In relational databases, the data is stored in varied access control tables. Each of them has a key field identifying the rows.

4. Object-oriented Database



The uniqueness of object-oriented database is that it adds the database functionality to the object programming languages. The object developers are able to write the database applications completely with less effort.



Advantages of Database Management System:

- **High-security level:** The data privacy and security enforcement are better with its framework.
- **Presence of referential integrity:** The organization's operation gets an integrated view promoting a clearer and bigger picture as a whole.
- **Consistency:** When the database is designed effectively, the inconsistency in the data is minimized to a greater extent.
- **Data Independence:** The database systems' multi-layered architecture helps to change data without affecting the other layer. Though they are independent, they could be mapped easily.
- **The absence of redundancy:** Running of larger applications are made easy due to the maintenance of database at more than one place.
- **Enforcement of standards:** The standards like data naming, formatting, structuring, and, etc., could be enforced easily.
- **Solves enterprise requirements:** Each department and section of the enterprise has their own huge data. A centralized control organizes the requests, priority, and, etc.
- **Backup and recovery of data:** Centralized database helps for recovery and backups easily like the disk crash, software errors, power failures, and, etc.
- **Develop data models:** An overall data model for the organization could be built efficiently and cost-effectively with DBMS.

Owing to the varied models and the advantages a database can deliver, the modern organizations are dependent on DBMS and their utilities vary. A few organizations may need centrally managed services distributed across the networks, LAN and database services or the Internet-based order system.

Whatever the utility is, the data are extremely sensitive and needs a professional handling like the Database Administrator. Let us know more about the active role and responsibilities of the Database Administrator.

The Database Administrators plan, organize, and, implement the activities and operations of the Technology Service Department. They carry special responsibilities regarding the technology and confidentiality. And reports to the Network coordinator.



LET US HIGHLIGHT THE DATABASE ADMINISTRATOR ROLES AND RESPONSIBILITIES :



A Database Administrator

- Actively participates in planning the installation of new organization-wide systems and applications. He also assists during the installation as per specific functions.
- Implements the work plan for the Department. He meets the staff to identify any problems, take measures, and resolves it
- Monitors the efficiency and effectiveness of all database resources and thus, keep the flow of work uninterrupted owing to technology.
- Ensures maximum service through identification of opportunities for improvement and make new recommendations.
- Continuous review and evaluation of the software, hardware, service delivery, and updates as and when required.
- Maintains a data standard and security measures through the implementation of information technology plans, policies, and standards.
- Handles the Division's database and data-driven systems in an effective manner. Thus, provides high-quality data analysis.
- Troubleshoot the problems[if any]. It includes a quick understanding of the problem and its resolution, restoration of the data, rectify the issue and minimize the damage.
- Actively attends and participates in the professional group meetings. Thus, acquire knowledge of the new and upcoming trends and innovations in the IT field.
- Monitor the changes in regulations, technology, and its impact on operations and implement the new or better ones as required.
- Continuously research on the emerging products and enhancements. Accordingly, execute special projects for remodeling and upgrade.
- In addition, he may be assigned other duties and responsibilities by the Network coordinator.

Apart from these regular and official duties, the Database Administrator has to maintain confidentiality as per the ethics.

Any breaching of the rules, regulations, and ethics is a serious violation of acceptable conduct and the Local Authority Freedom of Information and Protection of Privacy Act.

ELIGIBILITY TO BECOME A DATABASE ADMINISTRATOR:

A Database Administrator must possess a sound knowledge of the operating and understand the business. A graduation in computer science and an associated degree in database administration or its equivalent is desirable. He should be ready to work as part of the team and provide support 365*24*7.

In addition, he must have strong communication skills to work with management, development team, system administrator, vendor, and other service providers.



DATABASE ADMINISTRATOR SALARY :

A Database Administrator (DBA) earns an average salary of \$71,429 per year. The skills that increase pay for this job the most are SQL Server Integration Services (SSIS) and Transact-SQL.

An hourly rate ranges between \$14.32 - \$53.41.

Usually, the Database Administrator works for regular business hours for a company. However, there are companies that require a DBA to be available on call anytime.

Conclusion:

It is all about winning the game. As we comprehend the qualitative differences in the cumulative DBA tasks, people with appropriate skill set could be matched with the tasks.

Eventually, it leads to a better software, database, and more successful projects. The organization ought to utilize the powerful talent of the strategic Database Administrator and acquire business value.