SU 7 Homework

ITRW 321

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Database Administration and Security

Data management:

- Is a crucial activity for any business.

- Therefore, data must be handled as a corporate asset.

- Effective data management produces valuable information.

- This information can then be used for effective decision making.

Data quality:

- An all-inclusive method to ensure data is accurate, valid and timely.

- Aim is to ensure that dirty data is corrected.

- Preventing future data inaccuracies.

- Build user data confidence.

The Database Management system as a tool used for corporate data management:

- The Database Management System must aid tactical, strategic and operational decision making in all aspects of the business.

- The influence of the Database Management system on the managerial and cultural outline must be carefully analysed.

The role of the Database Administrator:

- The DBA oversees the management of corporate data.

- The internal structure of database administration varies from business to business.

- It is not uncommon to divide the DBA activities according to the Database life cycle phases.

Data Administrator vs Database Administrator:

- The DBA and DA activities tend to overlap.
- The DA has more managerial tasks and the DBA has more technical tasks.
- The DA is independent from the Database Management system.
- The DBA handles the functions of the DA, when there is no DA present.
- The DBA must have good technical and managerial capabilities.

DBA's managerial services:

- Supports end users
- Describing policies, procedures and standards of the database.
- Enforcing the security, privacy and integrity of data.
- Handle backup and recovery of lost data.

DBA's technical roles:

- Analysing, selection and installation of the DBMS.
- Designing databases and application programs.
- Implementing databases and application programs.
- Test and evaluate databases and the application programs.
- Maintain the DBMS.

Database Security:

- Activities and provisions to ensure the integrity, confidentiality and availability of data.
- A security policy is a gathering of standards to guarantee the security of systems.
- Ensures compliance and auditing.
- Security vulnerability is a flaw in a system that could give unwanted access to services.

- A violation in security is the result of an unchecked vulnerability.
- Security vulnerabilities includes, people, hardware, software, networks, procedures and data.

The development of a data administration strategy:

- Related to the objectives and mission of a business.
- The strategic plan must be composed of an analysis of the goals, the situation and the needs of the business.
- A mythology that is integrated is required.
- Information engineering is the most used integrating methodology.

To aid in the translation of strategical plans into operational plans, the DBA has access to the different DA tools, like the data dictionary and CASE tools. Cloud based services and the role of the Database Administrator has grown beyond the walls of corporations.