

# Vasavi College of Engineering

Ibrahimbagh -31

## Department of Computer Science & Engineering

A Report on “**Need for Data Management**” delivered by Mr. Prasad Badiganti (TCS), Conducted on 15th March, 2014

### (Conducted under – Co-curricular Activity)

A Guest Lecture on “**Need for Data Management**” was delivered by Mr. Prasad Badiganti, Information Security Advisor, Tata Consultancy Services(TCS), Hyderabad on March 15th , 2014 for the students audiences of M.Tech (CSE) II-Sem .

The objective of the session was to narrate the following considerations while designing a secure database application as

1. **Secrecy:** Information should not be disclosed to unauthorized users.
2. **Integrity:** Only authorized users should be allowed to modify data.
3. **Availability:** Authorized users should not be denied acces.

Speaker started off the session with the brief introduction to two main approaches DBMS to access control.

- **Discretionary Access Control** is based on the concept of access rights, or **privileges**, and mechanisms for giving users such privileges.
- **Mandatory Access Control** is based on system wide policies that cannot be changed by individual users. In this approach each database object is assigned a security class, each user is assigned clearance for a security class, and rules are

imposed on reading and writing of database objects by users.

#### **Discretionary access control mechanism**

As discussed during session SQL-92 supports discretionary access control through the GRANT and REVOKE commands.

#### **Mandatory access control mechanism**

The popular model for mandatory access control, called the Bell-LaPadula model. The Bell-LaPadula model imposes two restrictions on all reads and writes of database objects:

1. **Simple Security Property:** Subject S is allowed to read object O only if  $class(S) \leq class(O)$ .
2. **Property:** Subject S is allowed to write object O only if  $class(S) \leq class(O)$ .

The session concluded with the demonstration of Grant and revoke syntax.

