



COSC 3380

Design of Database Systems

Introduction

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Database Users

- Two groups of users
 - **Actors on the Scene** –
 - Those who actually use and control the database content, and those who design, develop and maintain database applications
 - **Workers behind the Scene**
 - Those who design and develop the DBMS software and related tools, and the computer systems operators

Database Users – Actors on the Scene

Database administrators:

- Responsible for authorizing access to the database
- For coordinating and monitoring database use
- Acquiring software and hardware resources, controlling its use and monitoring efficiency of operations

Database Users – Actors on the Scene

Database Designers:

- Responsible to define the content, the structure, the constraints, and functions or transactions against the database
- They must communicate with the end-users and understand their needs

Database Users – Actors on the Scene

End Users

- They use the data for queries, reports and some update the database content.
- End-users can be categorized into:
 - **Casual**: access database occasionally when needed
 - **Naïve** or **Parametric**: they make up a large section of the end-user population.
 - They use previously well-defined functions in the form of “canned transactions” against the database.

Examples:

- Users of Mobile Apps
- Bank-tellers or reservation clerks are parametric users who do this activity for an entire shift of operations.
- Social Media Users post and read information from those sites

Database Users – Actors on the Scene

End Users

- **Sophisticated:**

- These include business analysts, scientists, engineers, others thoroughly familiar with the system capabilities.
- Many use tools in the form of software packages that work closely with the stored database.

- **Stand-alone:**

- Mostly maintain personal databases using ready-to-use packaged applications.

Examples:

- user of a tax program that creates its own internal database.
- user that maintains a database of personal photos and videos.

Database Users – Actors on the Scene

- **System Analysts and Application Developers**
 - **System Analysts**
 - Understand the user requirements of naïve and sophisticated users
 - Design applications including canned transactions to meet those requirements.
 - **Application Programmers**
 - Implement the specifications developed by analysts
 - Test and debug them before deployment.
 - **Business Analysts**
 - Analyze vast amounts of business data and real-time data ('Big Data') for better decision making related to planning, advertising, marketing etc.