

Introduction to Databases and Database Users This chapter introduces databases and database users. It starts by discussing various types of databases, including traditional numeric and textual databases, multimedia databases, Geographic Information Systems (GIS), data warehouses, and real-time and active databases. The focus of the book, however, lies on traditional applications. The chapter defines key terms like database, data, mini-world, Database Management System (DBMS), and database system. It then provides a simplified illustration of a database system environment. Typical DBMS functionality includes defining database structure, loading initial data, manipulating data through queries and modifications, providing web access, and supporting concurrent user access while ensuring data consistency. Additional features include security measures, active processing, data visualization, and database maintenance. An example using a UNIVERSITY environment demonstrates the concept of a mini-world with entities like students, courses, sections, departments, and instructors, and their relationships. The chapter also highlights key characteristics of the database approach, such as its self-describing nature, program-data independence, data abstraction, and support for multiple views of the data. The chapter concludes by discussing different types of database users, categorizing them as those who use and control the database content ("Actors on the Scene") and those who design and develop the DBMS software and tools ("Workers Behind the Scene"). It further breaks down "Actors on the Scene" into database administrators, database designers, and end-users, emphasizing the importance of communication and understanding between these groups. Finally, it classifies end-users into casual, naïve, and parametric users, highlighting their varying levels of interaction with the database.