Tishk International University
Department of Information Technology
Database Systems 1
Week 1
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Introduction to Database and DBMS

Wisam Abdulaziz Qadir
Wisam.abdulaziz@tiu.edu.iq

Lecture Outcomes

- What is Database
- What is Database Management System (DBMS)
- What is File System
- Difference between DBMS and File System

Database

- It is an organized collection of structured information or data.

- Typically stored electronically in a computer system (e.g.: database server.).

- It is usually controlled by a database management system (DBMS).

Database (cont.)

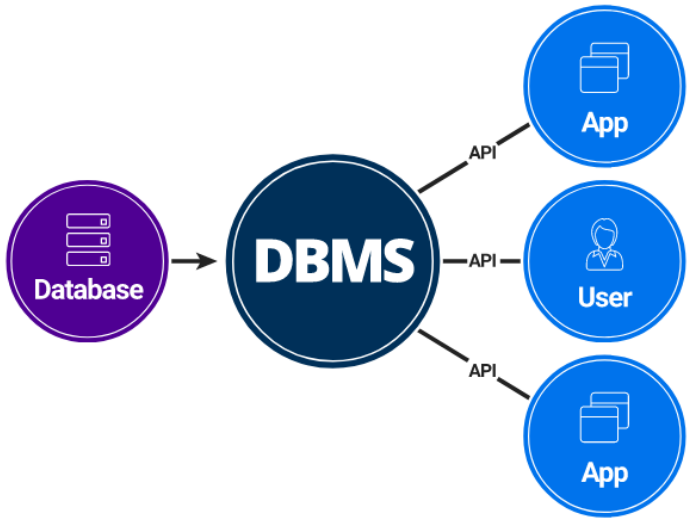
- Database can be very large.

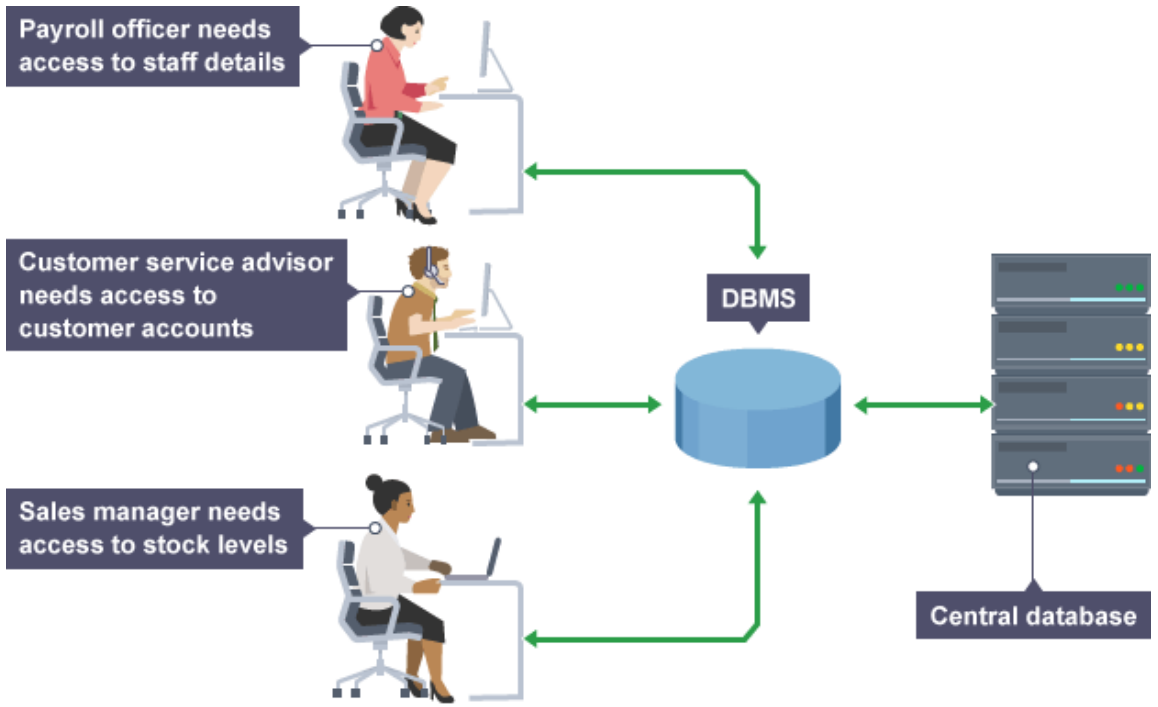
- Databases touch almost all aspects of our lives.

Database Management System (DBMS)

- Is a software for creating and managing databases.

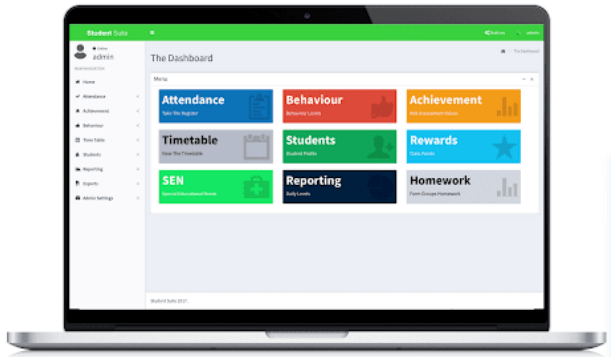
- It provides users and programmers with a systematic way to create, retrieve, update and manage data.

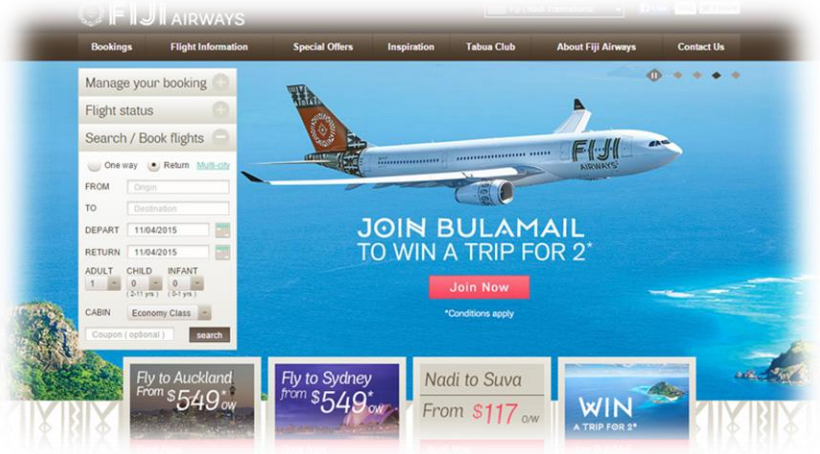




Uses of Database

- Database can be used in:
  - **Universities:** registration, grades
  - **Banking:** transactions
  - **Airlines:** reservations, schedules





Uses of Database (cont.)

- **Sales** (e.g.: Shopping markets): products, purchases

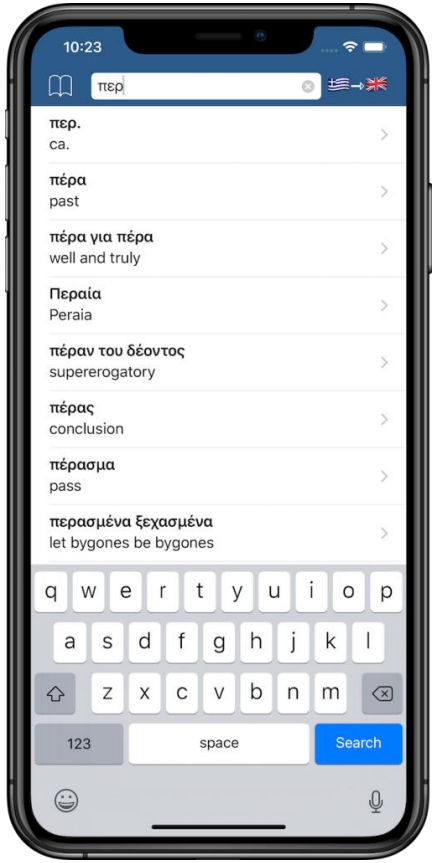
- **Manufacturing:** production, orders

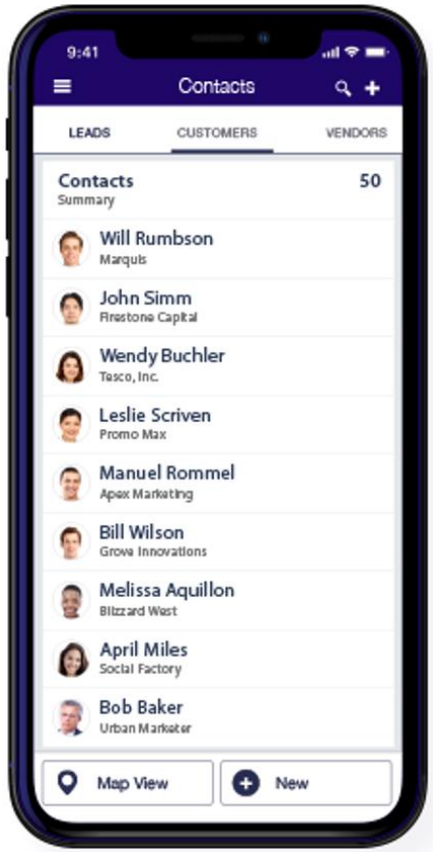
- **Social Media:** communication, announcement

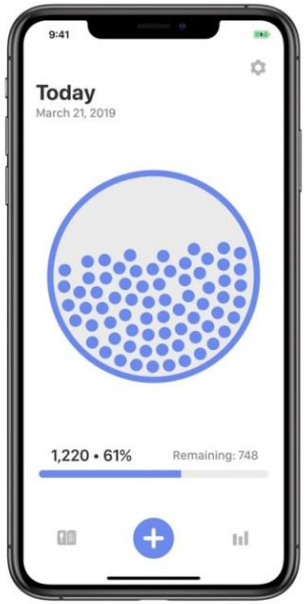
Database Example

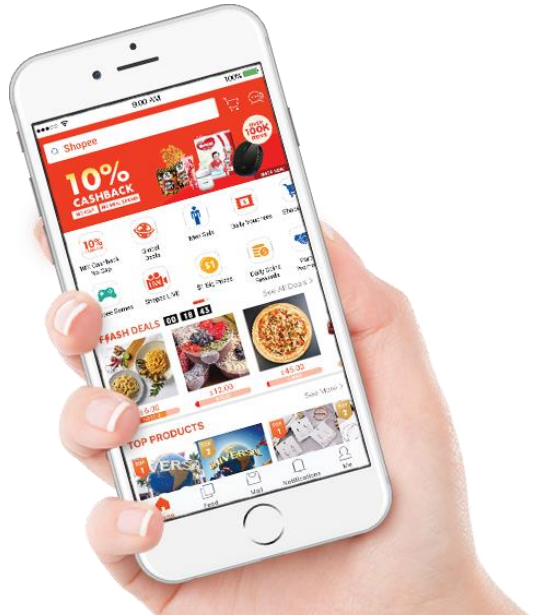
- Shopping market database performs:
  - Adding new items to the store
  - Calculation of the receipt on the cashier
  - Deduction of sold items from the system
  - Reporting of the needed items
  - Filling the place of the sold items with the ones from the store.
  - Reporting of the sold items and calculation of the amount of profit within a period.

Apps with Database

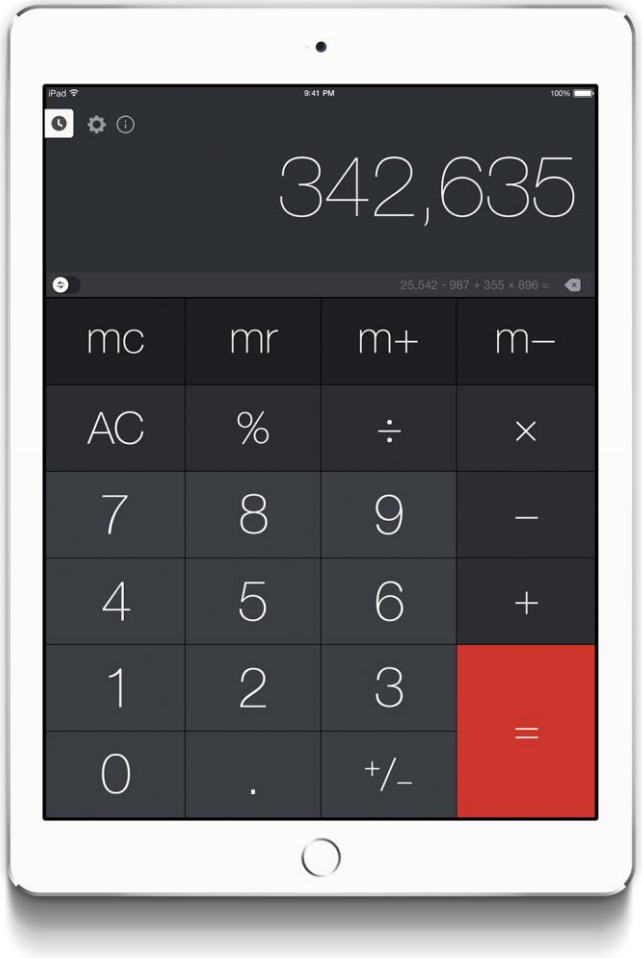








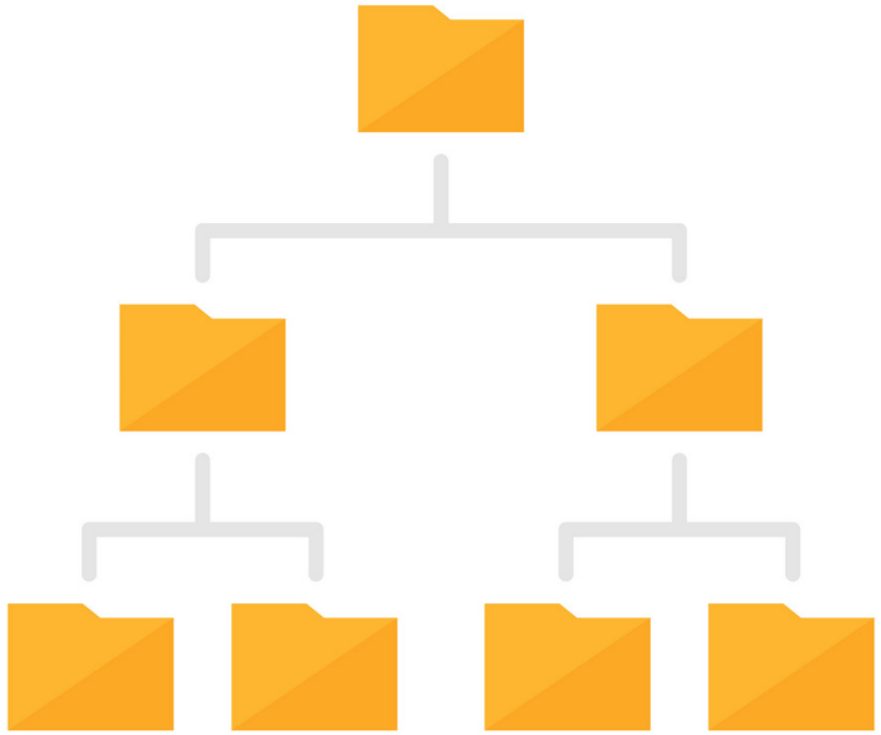
Apps without Database



File System

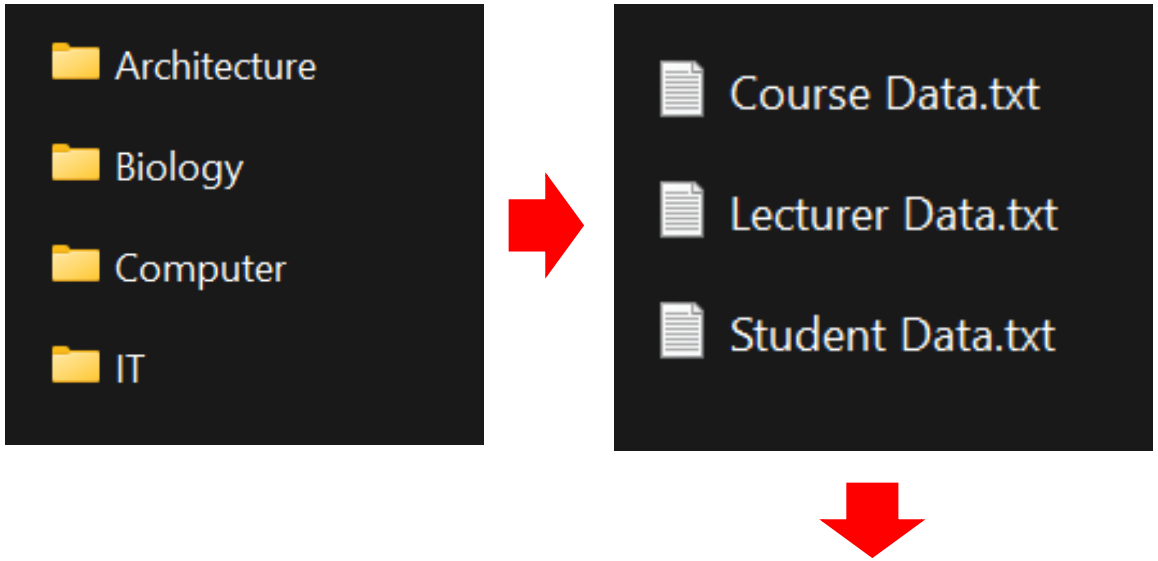
- It is basically a way of arranging the files in a storage medium like hard disk.

- It organizes the files and helps in retrieval of files when they are required.

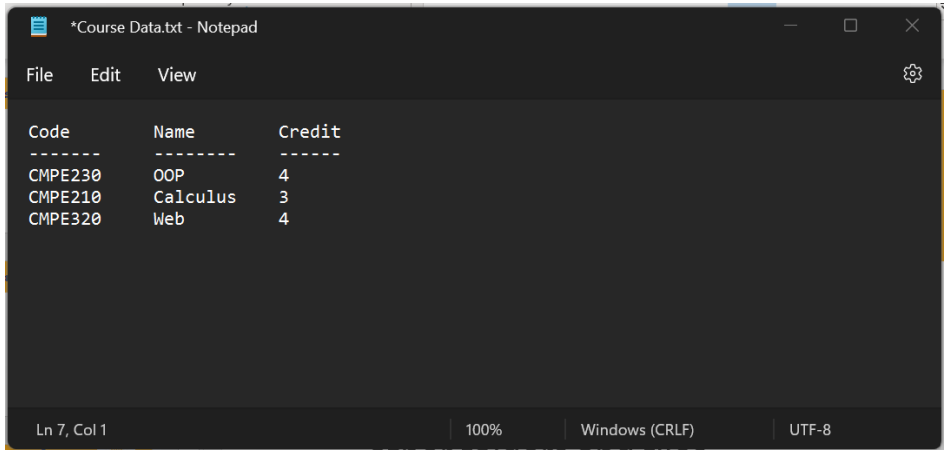


File System (cont.)

- File systems consist of different files which are grouped into directories. The directories further contain other folders and files.



- File system performs basic operations like management, file naming, giving access rules etc.



Thank You