Before the Advent of Databases

In this lesson we will discuss the history of databases and the system used before its inception.

Before the advent of database systems

The way computers manage data has come a long way over the last few decades. Today's users take for granted the many benefits found in a database system. However, it wasn't that long ago that computers relied on a much less elegant and costly approach to data management called the file-based system.

The File-based system

One way to keep information on a computer is to store it in permanent files. A company system has several application programs; each of them is designed to manipulate data files. These application programs have been written at the request of the users in the organization. The system just described is called the **file-based system**.

Consider the example of a university management system that uses the file-based system to manage the organization's data shown in the figure below:

Accounts

Student Information

- Name
- Roll No.
- Address
- Fee vouchers

Department

Student Information

- Name
- Roll No.
- Address
- Major
- GPA

Hostel

Student Information

- Name
- Roll No.
- Address
- Hostel no.
- Room no.

University Management System

As we can see, data on the students is available to their respective departments, accounts section, hostel office, etc. Some of the data is common for all sections (like roll number, name, address and phone number of students). On the other hand, some of the data is exclusive to a particular section, such as hostel allotment number which is a part of the hostel office only.

Now you can imagine using that the file-based system to keep organizational information has several disadvantages which we will discuss in the next lesson.