Database Definitions

1. **Database**: A database is a collection of data about anything, such as cricket teams, students, buses, movies, personalities, stars, seas, buildings, furniture, lab equipment, hobbies, hotels, pets, countries, etc. The data stored depends on the perspective of the person or organization who wants to store the data.
2. **Database Management System (DBMS)**: A DBMS is a software or tool that is used to manage the database and its users. It consists of different components or subsystems that perform different functions to manage the data stored in the database and its users.
3. **Database System**: A Database System is a combination of the database and the DBMS. It includes both the collection of data (database) and the tool to manage this data (DBMS).

Traditional File Processing Systems

1. **Traditional File Processing System**: A traditional file processing system refers to the first computer-based approach of handling commercial or business applications. It is also called a replacement of the manual file system as it simply transformed manual file work to computers.
2. **Program-Data Interdependence**: Program-data interdependence refers to the excessive dependence of programs and data on each other in traditional file processing systems. Any change in one affects the other, making changes in the system very hard to implement.

Advantages of Databases

1. **Data Sharing**: Data sharing in databases refers to the ability to store data that is common among different applications just once, rather than storing it repeatedly for each application. This saves storage and allows all applications to access the same data.
2. **Data Independence**: Data independence means that data and programs are independent of each other in a database system. A change in one has no or minimum effect on the other, making it easier to implement changes in the system.
3. **Controlled Redundancy**: Controlled redundancy means that data duplication in databases is deliberate and controlled. While some data may be duplicated, it is not done unnecessarily.
4. **Better Data Integrity**: Better data integrity refers to the ability of a database management system (DBMS) to ensure that the data being entered into the database is valid. This is important because all processing and information produced are based on this data, and invalid data can lead to incorrect results or decisions.