

## **1.8:**

Differences between a database management system and a file-processing system are:

1. The database management system coordinates physical and logical access to the data, but the file processing system only coordinates physical access.
2. The database management system reduces the amount of data that is authorized to access all of its programs, but data written by one program in the file processing system may not be read by another program.
3. The database management system is designed to allow flexible access to data, but the file processing system is designed to allow for pre-determined data access.
4. The database management system is designed to coordinate multiple users accessing the same data at the same time. File processing systems are typically designed to allow one or more programs to access different data files simultaneously. In a file processing system, two programs can access a file at the same time only if both programs have read-only access to the file.

## **1.9:**

Physical data independence is the ability to modify the physical scheme without making it necessary to rewrite application programs. How the data is stored on the disk is managed by the DBMS (Data Base Management System). The user program does not need to understand. The application only needs to deal with the logical structure of the data, so that when the physical storage of the data changes, the application does not need to be changed.

## **1.13:**

1. Backing up data
2. In some cases, creating schema definitions
3. Defining storage structures and access methods
4. Modifying schema and/or physical organization as necessary
5. Granting data access rights

## **1.15:**

1. A users table which contains genders, nick name, birthday, phone number, avatar and so on.
2. A table which contains one user's friends and the relationship of them.
3. A table which contains the journey and the likes of this journey.
4. A permission table which records which category of friends are allowed to view which content uploaded by a user. For example, a user may share some photos with family but not with all friends.