# 数据库作业 Week 1

## 1.7

1. The file-processing system depends on kinds of situations. But DBMS does not. DBMS can be used in banks,schools,offices and etc. It has more adaptive capacity than file-processing system. For example "query"
2. DBMS supply different accesses and view modes for different users. While file-processing system normally is difficult to divide these accesses.
3. DBMS allows users' operations have the access to physical part of the same data which can decrease times of data moving and copying. While the operations in file-precessing system query data are independent mutually,which will causes some more times of data moving and copying.
4. DBMS has the capacity of solving the parallel programs. While the file-precessing system has not. For example .there is a situation in Windows frequently that this file is being used.

## 1.8

- According to the slide in first class, Physical Data Independence（物理数据独立性）is the ability to modify the physical schema without changing the logical schema.
- Importance: The physical independence of the database system means that an application's access to the database is through logical abstraction, rather than relying on how the database is physically stored. The benefit of this independence is that when the way the database is physically stored changes, such as from disk to memory, the application does not need to make any modifications and can continue to function normally. This greatly improves the maintainability and scalability of the system.

## 1.9

1. interaction with the file manager.
    - probable problem:

      DBMS will crush without it. Access to query data is fundamental acquirement for solve problems.
2. integrity enforcement.
    - probable problem:

      When power down happens, The data should be changed may be same as before in a n operation.
3. security enforcement.
    - probable problem:

      It may be cause that someone who hasn't the access change the data that he shouldn't touch.
4. backup and recovery.
    - probable problem:

      As the same to last second example, when there is power down,the data may be cleaned or damaged.

5. concurrency control.
    - probable problem:

      It will not solve the concurrent problem. For example ,Two users operate the same data at the same time.

## 1.15

- Profile table: It contains Name,Phone,Email,age, gender, location and more information
- Post table: It covers all the post that users publish,which has the post-link,publish-time,comments and more information.
- Publish table: It covers the tools for publish post ,for example,font,Emoji,photo-manage and etc.