1. In e-commerce, there is a huge amount of data, and it is necessary to manage it efficiently, and to protect customers from hackers through strict security is the key to the success or failure of a business. Therefore, the database is important, and why the database is needed is as follows.

1) keep your data consistent

files that were managed in multiple places in the file processing method by adopting a database approach, it is consolidated into one logical structure. typically, each value in a data item is written to the database only once without duplication. it makes it much easier to keep your data consistent. In the database, for editing or improving processing speed, you can duplicate and record the values of a specific data item. In this case, the database management system (DBMS) will control the duplication of data. controlled redundancy) this database approach minimizes duplication of data. Even in the event of data duplication, dbms can be utilized to ensure consistency of data.

2) minimize duplication

- in the case of databases, duplication is not automatically excluded

- by minimizing duplication, you can also save storage space and make data modifications when processing data. work with changed data to adapt quickly.

- DbMS must be aware of the redundancy of the data and be able to clearly handle ongoing updates.

- in the conventional file structure, file changes must occur when new data is added.

- if you do not modify an existing file, you must define a new file.

3) sharing data

- in files before the database, it was not possible for multiple users to use the same data at the same time. the concept of sharing a database has two meanings:

- first, the data that becomes a subset of the database is used for tasks of different purposes.

in the case of conventional files, each of the desired data is in its own file by duplication. it was not uncommon to use one file for another purpose. in databases that minimize redundancy, it is recommended that the same data be used for versatility.

- second, the same data is available at the same time. this is called concurrent processing. it can be shared at the same moment and is also referred to as concurrent sharing. parallel sharing also benefits for database purposes, but in some cases it is a problem.

4) maintain data integrity

- integrity is one of the purposes of a database that ensures the accuracy of the consolidated data contained in the database.

- the problem of inconsistencies is a significant loophole in data management that indicates a lack of integrity. inaccurate data can still be stored inside the database if no duplicates occur.

- the database administrator has the integrity of the data for all database users. I'm going to go ahead and do the same thing.the impact must be avoided if integrity is not maintained.

- maintaining integrity is one of the important purposes of a database.

5) Achieving security of your data

- the data in the database is not accessible to anyone. it is accessible only to the person who owns the data or who is authorized to access it.

- when accessing data, make sure you have different permissions depending on your account.

1. When you create a table in the DB, you can set one or more items as primary keys. the primary key has the most basic values in that table. Here are some aspects of SQL

1) technical implications

- the primary key has a single value that can never appear duplicated with other items.

- the primary key can never have a null (no value state).

ex) for example, a social security number. there can be many people with the same name,

and others with the same name on the same day, but in the end, when they meet and

contrast each other's civility.... it is eventually separated by a different number.

- the primary key can also be used as a keybone key because one or more columns are grouped together.

2) implicit personality

- WHEN YOU ADD A PRIMARY KEY, A SINGLE B-TREE INDEX IS AUTOMATICALLY CREATED FOR THE PRIMARY COLUMN OR GROUP OF COLUMNS.

- a table can have only one primary key.

- In technical terms, the primary key is unique and not null works functionally the same, but there is only one thing that is really separated like the primary key. In other words, it's not all the same Unique and not Null primary keys.

- Relational DB in theory, all tables must have one primary key.

3. MySQL uses the delimiter command to change the qualifier. In mysql, the separator is used as the default, ;) as the sentence separator.

select \* from subin;

Each stored program (which seems to mean Trigger or Procedure); May include an SQL statement in the body. The included SQL statement may be a complex statement consisting of several sentences divided into semicolons (;)

if delimiter is not redefined, this is an example.

CREATE PROCEDURE `subin`()

BEGIN

declare i int default 1;

while i <= 500 do

set i = i + 1;

end while;

END;

1) CREATE PROCEDURE `subin`() BEGIN declare i int default 1;

2) while i <= 500 do set i = i + 1;

3) end while;

4) END;

it will be sent to the server in four sentences.

if so, the server will of course not understand the sentences.

So in order to send the definition of stored program to the server, you need to temporarily override the delimiter.

At this time, it is the DELIMITER command to use to override the mysql delimiter.

BELOW IS AN EXAMPLE USING DELIMITER.

DELIMITER $$

CREATE PROCEDURE `subin`()

BEGIN

declare i int default 1;

while i <= 500 do

set i = i + 1;

end while;

END$$

DELIMITER ;

this will send the entire definition of stored program to the server at once.

And, it's a good idea to redefine delimiter, define a stored program, and then replace the delimiter with an existing semicolon (;) (Unless you continue to use DELIMITER as a user override...)

If semicolon is not used inside the stored program, you don't need to use DELIMETER unnecessarily.

4. An index is literally the first or last index of a book. If we take this analogy as it is and look at the index, the data is the contents of the book, and the address of the record where the data is stored is the page number in the index list. It takes a long time for DBMS to retrieve all data in the database table and get the desired result. So, the index of the column value and the address where the record is stored is created as a key/value pair. Since the DBMS index is always sorted, it is fast to search for a desired value, but when a new value is added, deleted, or modified, the execution speed of the query statement becomes slow. In conclusion, index in DBMS is a function that sacrifices data storage performance and instead increases data read speed. If all columns used in the WHERE conditional clause of the SELECT query statement are created as indexes, data storage performance decreases and the size of the index becomes enlarged, which can only have the opposite effect.