

Notice about Ken's Study Planner Database Upgrade

Technology isn't Easy, Development is Busy

Dear Ken's Study Planner users,

Thanks for choosing and using Ken's Study Planner!

From April to May 2024, Ken's Study Planner experienced a **degraded performance** due to **server overload**. This is the **first major incident in 2024**.

According to my investigation, it was caused by the large amount of statistics data **accumulating in one database file**.

Please note that this incident is **also common on some other websites/apps**.

During the last few weeks, Ken's Study Journey successfully and urgently **improved the statistics data algorithm** splitting the data into hundreds of separate files.

Following this update, Ken's Study Journey will **continue improving the data algorithm** (with hash algorithms) for Ken's Study Planner **throughout June 2024** to quickly handle more user data in the future.

This update will be processed **separately for each feature**. Ken's Study Journey will use its maximum effort **not to interrupt the services**.

Additionally, it will use a **stronger encryption algorithm** (with different encryption keys for each user) to **further safeguard user data**.

If you find **data discrepancies (e.g. some data lost or incorrect)** or **system malfunction** during/after the upgrade, please contact me by email: ken@kenstudyjourney.cn

- Ken's Study Journey **has to deal with over 100 users worldwide**. Your data is **encrypted**.

- Data Backups will take place before this Planner upgrade.

Ken's Study Journey is **more than content sharing and programming**.

It is my **biggest personal project** developing skills like Software Development, Incident Handling, Technical Research (e.g. IPv6, Hashing Algorithm) and Server Maintenance.

For more information, please read [this article](#).

Technology isn't Easy, Development is Busy. Only with patience and ambition can we develop modern useful technologies.

Thanks for your attention to this important matter. Ken's Study Journey hopes everyone studies hard for outstanding results.

Ken's Study Journey

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Did you Know?

In computers, everything is stored line by line, whether text files or C++ programs. The computer/server needs to search every line to find the correct database records.

As more lines of data accumulate in one database file, the server's performance will be degraded.

In the worst case, it will cause **Server Overload**, reaching **100% for CPU and memory usage**.

Related Knowledge

Now, I discovered relevant A Level Computer Science (9618) knowledge:
Sequential and Direct (Random) File Access

Sequential file access is to read a file, database or array one by one. Over millions of lines in one file may **cause server overload taking more time to find records**.

Direct (Random) file access, however, uses **hash algorithms** to find the corresponding records without scanning one by one.