CREATING AN INTERBASE DATABASE

Khakimova Dilnozaxon Sa'dulla qizi
Andijan Institute of Mechanical Engineering
Information Systems and Technologies, 2nd Year Student

Butayev Eldorbek Khomitjonovich
Andijan Institute of Mechanical Engineering
Assistant of the Department of "Information Technology"

Annotation

This article is about InterBase, one of the fastest databases with a small and light space. It details InterBase's security, benefits, SQL compatibility, data recovery, replication, flexibility, and more.

Keywords. InterBase, cyber attack, drivers, generators, triggers.

Inter Base is one of the fastest databases with a small and light space. InterBase uses the latest multi-core processors and multiprocessor systems, as well as a unique approach to version creation and advanced disk IN / OUT caching to retrieve and update your data extremely quickly.

In the smallest distribution, InterBase takes up a few megabytes. The small disk space and low RAM requirements make it ideal for any device that requires a commercially installed database engine. InterBase Change Views improves data transfer speeds and scales by significantly reducing the amount of data transferred, data cost, network traffic, server processor, and disk IN / OUT. Journaling, with the advantages of a full-memory database system, provides the security to instantly write changes to disk. Enables logging with a series of SQL logs without any changes to the application.

Cyber-attacks and data loss against databases can be costly and can lead to loss of customer (and business) trust, regulatory action, and even large fines. InterBase provides online and offline encryption, separate access security, and role-based user security. InterBase encryption adds little to the speed and performance of the database, while maintaining complete encryption on disk.

InterBase supports encryption of the remaining data (both DES and 256-bit AES encryption) over a network between the server and the client. InterBase encryption is built as part of a single cross-platform file format. The appearance of the data is determined by a database specialist login (SYSDSO) with a high degree of granularity, which ensures that even developers cannot bypass the encryption to view and search sensitive data. Column-level

granular encryption drastically reduces the risk of data leakage by modifying requirements and product recovery, as the data layer (not the application) controls the appearance of the data.

You can easily add or remove access to both data and assign user security roles that match the job roles (accountant, account manager, sales, HR, etc.) to track data changes in your system. InterBase also supports a special backup encryption key that allows you to create encrypted backups and meet the needs of those who need to run scheduled backups from the command line.

Your app and business work with data, so recovering from a database crash is an important future. Interbase supports effective disaster recovery planning with real-time backups, additional trash, multi-stage recovery, pre-recording log, and simultaneous recovery. Database backups can be done using the command line, administrator tools, the backup API, code, or the ODBC driver GUI.

The multi-version architecture of InterBase allows users to back up snapshots while still connected and modifying the database. Personal databases quickly create a read-only copy of the database. In an emergency recovery scenario, the transition to read-write database is faster than waiting for recovery. InterBase performs multi-stream, multi-processor recovery to ensure database and index recovery is as fast as possible. InterBase logging provides the security of instant disk changes with all the advantages of a memory database system. Enables log access with single line SQL. Quickly restore the database at any time using log archives. Even if a backup has not been performed, journal archives can be stored outside the device for quick recovery.

InterBase Change Views reduces development time, network costs, and server CPU load associated with other replication methods based on traditional change tracking methods. As a result, development teams benefit from cost savings, time savings, and improved user experience.

InterBase is a database that meets SQL standards. InterBase strictly adheres to SQL standards. It supports Unicode and is ideal for any character set, and offers Unicode with multiple combinations, real-time event alerts, and SQL-based change tracking in the form of our custom changes.

Changing views speeds up applications and reduces network traffic and costs just by detecting and retrieving changes to the database. The database provides consistency in snapshots, ensures that students do not interfere with editing editors' records, and increases scalability. InterBase Events allows you to notify connected customers in real time when changes are made. This reduces CPU database queries and increases database expansion. Easily configure the InterBase with special field types, stored procedures, special exceptions, and triggers - generators allow you to get serial numbers that are typically used for primary keys.

3rd-TECH-FEST-2022
International Multidisciplinary Conference
Hosted from Manchester, England
25th June 2022

https://conferencea.org

References

1. A. Sattorov. Ma`lumotlar bazasini boshqarish tizimlari. – Toshkent – 2006
2. Григорьев Ю.А., Ревунков Г.И.. Банки данных. - М.: Изд. МГТУ им. Баумана, 2002.
3. Филипп Андон, Валерий Резниченко. Язык запросов SQL. Учебный курс. - СПб.: Питер, 2006.
4. Alijanov D.D., Topvoldiyev N.A. (2021). SOLAR TRACKER SYSTEM USING ARDUINO. Theoretical & Applied Science, 249-253
5. Alijanov D.D., Topvoldiyev N.A. (2022). PHYSICAL AND TECHNICAL FUNDAMENTALS OF PHOTOELECTRIC SOLAR PANELS ENERGY. Theoretical & Applied Science, 501-505.
6. Muhtorovich, K. M., & Abdulhamid o'g'li, T. N. (2022). DETERMINING THE TIME DEPENDENCE OF THE CURRENT POWER AND STRENGTH OF SOLAR PANELS BASED ON THE EDIBON SCADA DEVICE. Web of Scientist: International Scientific Research Journal, 3(5), 1902-1906.
7. Topvoldiyev N.A., Komilov M.M. (2022). Stirling's Engine. Texas Journal of Multidisciplinary Studies, 95-97.