张安哲

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Personal advantage

- Good at .NET Core back-end development, multithreading and asynchronous use, familiar with GC, finalizer scheduling mechanism and its implementation principle.
- Familiar with Redis scheduling mechanism and its implementation principle, familiar with common cache elimination algorithm, load balancing algorithm.
- Understand that TDD, has good object-oriented ideas and code specifications. Have a good habit of writing unit tests.
- Can use dotMemory and dotTrace for memory leak troubleshooting and performance tuning.
- Familiar with common data structures and algorithms, and optimize program time and space complexity.
- Have a good habit of reading source code, have a strong curiosity and curiosity for the implementation of the underlying principles, and can be combined with it in practical projects.
- Have the self-driving force of continuous learning to capture the value of new technologies to the project.

Work experience

Shanghai smallview limited company
.NET R&D Developer 2019.11-2020.11

Work content:

1. Responsible for the operation, maintenance, development and error troubleshooting of multiple platforms.
2. Responsible for breaking through the difficulties of the project, such as system bottleneck, memory leak, deadlock, slow query, etc.
3. Responsible for requirement research and program experience optimization.
4. Pay attention to the latest technical developments in the industry and improve the actual project.

Work achievement：

- Continuously iterate and improve the original system and module design to improve the expansibility and maintainability of the system.
- Understand the distributed idea and learn to use it in practical projects to improve the robustness of the system.
- Keep learning, understand the idea of divide and conquer and optimize the system speed by combining multithreading and MySQL index tuning.

Profession Skills

1. Skilled on basic knowledge of C # and multithreading.
2. Skilled on CLR principles [object creation process, GC, finalizer].
3. Skilled on OOP principles and common design patterns [singleton, factory, adapter pattern, etc.].
4. Skilled on .NET Core, WebApi [IOC, AOP, pipes, authentication, caching, filters, etc.].
5. Skilled on Redis, has in-depth understanding. [Sentinels, clustering, caching, optimization, etc.].
6. Skilled on MySQL index tuning.
7. Skilled on EntityFramework Core, understand normal WEB network attacks and how to deal with them.
8. Have some knowledge of distributed technology and distributed ideas, and have a certain understanding of message queues.

Project description

BIOFOUNT chemical and biological online mall

Project background：

B2B project, BIOFOUNT Mall involves chemistry, life sciences, material science, chromatographic analysis, standards, drug impurities, cutting-edge compounds, users include Mengniu Group, China Gold, Energy Group and other top 500 enterprises in the world, as well as the Chinese Academy of Sciences, the Academy of Agricultural Sciences, domestic double-first-class universities and research institutes.

Job description:

Mainly responsible for the development of search module, order module, payment module, data export module and other programs, analysis of system bottlenecks, performance optimization and experience optimization, unit testing and so on.

Work achievement:

The original system often occupies full load in the case of many concurrency CPU. I found out that the main reason is that the query SQL execution is slow, and a large number of complex SQL destroys DB. First of all, we optimize the database for the problem of slow query speed, using horizontal split and read-write separation to disperse the database pressure, and introduce Redis as hot data cache to avoid a large number of SQL to cause pressure on the server, which greatly improves the search speed and user experience.

The original export Excel is slow and often jammed. I optimized the export data speed by using the method of asynchronous + multithreading + slicing. On the way to solve the problem of thread safety, running for a period of time found that the memory occupation is too high and will not be GC, the use of dotMemory troubleshooting and solve the memory footprint from 2500m to 600m or so. Using dotTrace, it is found that reflection time accounts for about 15% of the total export time. Generic cache is introduced to solve the performance waste caused by reflection, so that the performance and resource utilization are further improved. The speed increases from exporting 100w data for a few minutes and often card UI to about 20s UI without stutters. So that the efficiency and experience of businesses have been greatly improved.

ALTER major online mall

Project background：

B2C project, ALTER Shopping Mall is a wholly owned subsidiary of ALTER, one of the three major figure in Japan, which is mainly responsible for the exclusive direct marketing of Chinese mainland ALTER and its brands, providing Chinese mainland players with authorized authentic ALTER handmade products.

Job description:

Responsible for product module, search module, order module (spot, pre-purchase), user center (return, payment, repayment), payment module, member module and other modules development, optimization, unit testing, database design and so on.

Work achievement:

In order to optimize users' search experience, search association words are introduced, hot search keywords are cached by Redis ZSet, and hot search words are added under the search box, which improves the search efficiency of users.

Encountered the problem of oversold goods, the use of Redis lock + transaction to ensure the accuracy of inventory.

To meet the demand that unpaid orders need to return inventory and need to ensure real-time inventory, Redis Hashtable is used to store real-time commodity inventory, Redis ZSet to store reserved commodity deposit orders, reserved commodity replenishment orders and spot goods payment orders respectively, which also alleviates the pressure on MySQL database.

In order to solve the problem of no deduction of inventory after payment caused by network fluctuation, a compensation retry mechanism is added to improve the reliability of the system.

Education background

Hunan University of Arts and Sciences	Computer application technology	Junior Collage