Technical Writing Exercises

Introduction

Thank you for your interest in the Technical Writing role here at Liferay, Inc. These exercises are intended to help evaluate a candidate's critical thinking, writing skill, creativity, and empathy. Each exercise will require exercising a combination of those skills.

Exercise 1

Sometimes, documentation is submitted by those for whom English is a challenging communication medium. You may also be called upon to edit a peer's documentation. We call this "wordsmithing." Below is a real-world example of documentation submitted by a non-native English speaking writer. To the best of your ability, wordsmith this documentation so that it is clear, concise, and understandable.

"2010's benchmark and optimization is reaching the end, it is time to write something about what we did in last few months.

Today we will talk about an EE-only feature, a new ehcache cluster replication mechanism. Since this is only available in EE version portal, i won't talk about impl detail too much. Just some general concepts about what is the problem and how we fix it.

Ehcache supports cluster, by default it uses RMI replication mechanism, which is a point to point communication graph. As you can guess this kind of structure can not scale for large cluster with many nodes. Because each node has to send out N-1 same event to other nodes, when N is too big, this will become a network traffic disaster.

To make things even more worse, ehcache creates a replication thread for each cache entity. In a large system like Liferay Portal, it is very easy to have more than 100 cache entities, this means 100+ cache replication threads. Threads are expensive, because they take resource(memory and cpu power). But these threads are most likely sleeping over 99% time, since they only start to work when a cache entity needs to talk to remote peers. Without regard to thread heap memory(Because this is application depended), just consider stack memory footprint of that 100+ threads. By default on most platform, the thread stack size is 2MB, that means 200+MB. If you include the heap memory size, this number may even reach 500MB(This is just for one node!). Even memory chips are cheap today, we still should not waste them! And massive threads can also cause frequent context switch overhead.

We need to fix both the 1 to N-1 network communication and massive threads bottleneck.Liferay Portal has a facility called

ClusterLink which is basicly an abstract communication channel, and the default impl is using JGroups' UDP multicast to communicate.

By using ClusterLink we can fix the 1 to N-1 network communication easily.

To reduce the replication thread number, we provide a small group of dispatching threads. The are dedicated fory delivering cache cluster event to remote peers. Since all cache enities' cluster event will go through one place to network, this gives us a chance to do coalesce, if two modification to the same cache object are close enough, we only need to notify remote peers once to save some network traffic.

(Newer version ehcache supports JGroups replicator, it can also fix the 1 to N-1 network communication, itbut cannot fix the massive threads problem and cannot do coalesce.)

For EE customer who is in interested in this feature, you can contact our support engineers for more detail info."

Exercise 2

Liferay is currently working on an initiative to curate, revise, and re-write older documentation for our products. Part of this process involves reviewing documentation that exists on an older site (help.liferay.com) and revising it for a new documentation site housing documentation written in a different organizational approach and style: learn.liferay.com.

Steps

1. Review the following articles,
   a. https://help.liferay.com/hc/en-us/articles/360029131931-Introduction-to-Managing-Users
   b. https://help.liferay.com/hc/en-us/articles/360028721692-Users-and-Organizations
   c. https://help.liferay.com/hc/en-us/articles/360029131951-Adding-Editing-and-Deleting-Users

   TIP: It may be helpful to review the above articles while also working with an instance of Liferay Portal running locally on your computer.

2. Revise, re-write, or reorganize the information in the three articles to improve clarity, tone, and ease of cross-cultural understanding.

   NOTE: Newer articles that have been written on learn.liferay.com can be used as a reference for a more desirable tone and writing style:
   a. https://learn.liferay.com/commerce/2.x/en/account-management/introduction-to-accounts.html
   b. https://learn.liferay.com/commerce/2.x/en/account-management/creating-a-new-account.html
3. Submit your revisions / rewrite of the articles as a series of files written in the Markdown format in a zip file.